



PrintPromotion

NEWSLETTER

» Training Information & News in Printing and Paper Converting Technology | No. 99 | August 2015



The German printing industry trains specialist teachers from all over the world

Every year, PrintPromotion offers further training for specialist teachers for printing.

2



You can find us on Twitter now.
Learn more about the current
events of PrintPromotion at

Printpromotion@promotion4print



Getting ready for drupa

3



Six days in a different world: Burundi

12

The German printing industry trains specialist teachers from all over the world	2
Getting ready for drupa: Dates of PrintPromotion Print Media Management Conferences fixed	3
drupa cube: innovative conference programme at drupa 2016	3
PrintPromotion-Workshops at drupa	4
European Conference on Digital Print for Packaging 2015 in Berlin	4
Prospects of industrial printing	4
Friedrich-Koenig Medal awarded to American digital printing specialist	5
Training partners abroad	5

Company News

BaumannWohlenberg: New agency for Australia and New Zealand	6
bielomatik: High-performance cross cutter in extremely compact design	6
Kama: Cutting systems in action	6
Heidelberg: New Print Media Center Commercial at Wiesloch-Walldorf site reflects strategic reorientation	7
Heidelberg: Heidelberg digital printing portfolio a success	7
Heidelberg: New software from Heidelberg helps save cost	8

IST METZ: Visitor record at UV DAYS of IST METZ	8
Kolbus: Secure remote service – through encryption	9
Planatol: Non-toxic PUR hotmelts	9
POLAR Mohr: Expansion of product portfolio for single-sheet processing	9
KBA: LED-UV & Traditional UV Conference at KBA	10
KBA: 50 years of unit-type sheetfed offset presses from Radebeul	11
KBA: KBA sheetfed solutions on the path to the "Internet of Things"	11
Will-Pemco: Reduced risk of downtimes	11
Will-Pemco: Joint presentations for paper mills and converters	11
Mosca: Six days in a different world: Burundi	12
Mosca: Mosca EVOLUTION SoniXs TR-6 Base and Pro models now available with fully automated strap change	13
WINDMÖLLER & HÖLSCHER: W&H Expo a huge success	14
WINDMÖLLER & HÖLSCHER: Energy-efficiency certificate for blown film lines	14

Printers' Guide

Gravure printing methods	15
Partners & Imprint	16



Smiling faces at the end of the Specialist Teacher Course. All participants received a diploma from the hands of PrintPromotion Managing Director Dr. Markus Heering.

The German printing industry trains specialist teachers from all over the world

Every year, **PrintPromotion** offers further training for specialist teachers for printing from all over the world in a four-week course.



The Specialist Teacher Course was rounded off with an excursion week. Getting up-to-date knowledge about how to apply printing and paper technology is one thing, but that was even topped by demonstrations of printing and paper technology manufacturing.

The aim of the international specialist teacher course is to give those teachers theoretical and practical training so that they can pass on their knowledge to their students. Qualified training is a basic requirement of the efficient handling of German cutting-edge technology. Insofar, the promotion of training by PrintPromotion is also a means of export promotion for the German machinery manufacturers: Optimum use of the machines can only be made when the staff of the companies know how to operate them properly.

On Wednesday, 1 July 2015, this year's course ended with the handing over of the certificates in Heidelberg. Again, the 15 participants came from all parts of the world, this time from Brazil, Egypt, India, Kenya, Nigeria, Poland, Portugal, Serbia, Slovakia, Thailand, Trinidad, Tunisia, Ukraine, Vietnam and Zimbabwe.

The spectrum of subjects taught during the specialist teacher course is wide. It ranges from prepress through the traditional printing method of offset printing and quality management up to print finishing, e.g., print enhancements, and the application of user software like Photoshop. The course is carried out at the AZP training centre for print and media in Chemnitz in Germany and given in English.

Specialist Teacher Seminar abroad
Besides the Specialist Teacher Course in Germany, PrintPromotion also offers Specialist Teacher Seminars abroad in order to help teachers locally to update their knowledge about printing and paper. The next Seminar will be held at Vision for Africa - Intl. Christian College in Kiyunga / Mukono in Uganda from 8 - 10 September 2015 (see page 5).

At the end of the course, the specialist teachers gain an insight into the production facilities of technology manufacturers during an excursion week. At Windmüller & Hölscher, the group had the opportunity to see the plant including the print and extrusion centre and to get information about packaging printing and the basics of flexographic printing. Kolbus, presented traditional book production and demonstrated packaging solutions on a running packaging line. At Heidelberger Druckmaschinen, the group had the possibility to visit the newly opened Print Media Center Commercial and to see a machine demonstration. The specialist teacher course ended with the presentation of the certificates by Dr.-Ing. Markus Heering.

Getting ready for drupa: Dates of PrintPromotion Print Media Management Conferences fixed

The locations and dates of the PrintPromotion Print Media Management Conferences in the run-up to drupa 2016 starting in autumn 2015 have been decided on. The conferences outlining "High-tec for the printing industry – getting ready for drupa" will be held on:

15 October 2015:	Bogotá, Colombia
16 October 2015:	Lima, Peru
19 October 2015:	Quito, Ecuador
21 October 2015:	Mexico City, Mexico
27 October 2015:	Kuala Lumpur, Malaysia
28 October 2015:	Jakarta, Indonesia
30 October 2015:	Manila, Philippines
02 December 2015:	Bangkok, Thailand
03 December 2015:	Hanoi, Vietnam
04 December 2015:	Ho Chi Minh City, Vietnam
07 December 2015:	Riyadh, Saudi Arabia
08 December 2015:	Dubai, VAE
12 January 2016:	Istanbul, Turkey
14 January 2016:	Almaty, Kazakhstan

Preparations are being made in cooperation with Messe Düsseldorf and their respective foreign representations. If you are interested in attending one of the conferences, please contact angela.schiffner@vdma.org.

PrintPromotion organizes Print Media Management Conferences abroad to give their member companies the possibility to present innovations, technologies and trends in the printing and paper industry and therefore offer professionals from the local printing and packaging industry the opportunity to get first-hand information about the innovative printing and paper technology of German manufacturers free of charge on a regular basis. Target groups are entrepreneurs, executive managers and specialists from companies working in the printing and paper converting industry (printing houses, bookbinding companies, etc.).



drupa cube: innovative conference programme at drupa 2016



Visitors to drupa 2016 will experience an exciting new approach to innovation in print when they stop by the drupa cube. This special conference and event programme will feature a wide range of applications for printed products in numerous industries and areas of life, i.e., the potential of new technologies like printed electronics and 3D printing, creative

multichannel applications and the use of digital printing techniques in packaging and other sectors. Through an interdisciplinary approach, it is also designed to bridge the knowledge gap about the relevancy and functionality of print that often exists between printing professionals and their creative agency, marketing, and brand owner clients across a variety of vertical markets.

The 11-day programme is based on six key drupa 2016 themes:

- Multichannel
- Print
- Functional Printing
- 3D Printing
- Package Production
- Green Printing.

Each presentation slot will combine various themes using best practise case studies: Functional printing and packaging printing, 3D printing and sustainability, and multichannel including print are some of the combinations being explored. This outside-the-box principle opens up new possibilities for visitors and broadens the horizon for the future of print.

Through its range of themes and its interdisciplinary concept, drupa cube is, for the first time, also addressing selected vertical markets including the food, consumer goods, interior design, cosmetics, pharmaceutical and healthcare industries; and the financial and public sectors.

The details of the drupa cube programme are currently being finalised. A provisional programme is expected to be published in autumn at www.drupa.de. Also new at drupa 2016, participation in the cube programme will be free for visitors to drupa, included in the day ticket price of €65 (or €45 for tickets purchased online).

PrintPromotion Workshops at drupa



PrintPromotion



In cooperation with the AZP print media training center, PrintPromotion will offer workshops about Digital Printing, Color Management and Quality Assurance in Printing during drupa 2016. The one and a half to two hour workshops, for which a fee will be charged, will alternately be given every day (except on Sunday) on the exhibition grounds. For questions and definite registration using the registration form (see link on PP page), please send your fax or email to Uta Leinburg (uta.leinburg@vdma.org / Fax +49 69 6603-2455) by 4 March 2016. For bank account details, please also contact uta.leinburg@vdma.org.

Title:

1. Digital Printing and Standardization
2. Colorimetry and Color Management in Print Standardization
3. Quality Assurance in Printing

Held by: Training staff of AZP print media training center, Chemnitz:
Birgit Cholewa (1), Thomas Schubert (2),
Jürgen Seidel (3)

Date / Time:

Wed, 1/6/2016 – 9:30: Workshop 3 (Mr. Seidel)
Thu, 2/6/2016 – 9:30: Workshop 1 (Mrs. Cholewa)
Fri, 3/6/2016 – 9:30: Workshop 2 (Mr. Schubert)
Sat, 4/6/2016 – 14:00: Workshop 3 (Mr. Seidel)
Mon, 6/6/2016 – 14:00: Workshop 1 (Mrs. Cholewa)
Tue, 7/6/2016 – 14:00: Workshop 2 (Mr. Schubert)
Wed, 8/6/2016 – 9:30: Workshop 3 (Mr. Seidel)
Thu, 9/6/2016 – 9:30: Workshop 1 (Mrs. Cholewa)

Duration: 90 – 120 min

Venue: Conference room at the CCD Congress Center
Düsseldorf on the exhibition grounds

Fee per workshop: 50,– EUR per attendant

No. of attendees: min. 10 – max. 30 per workshop
(The workshop will not take place if the minimum number of attendees is not reached.)

Contents:

1. Digital Printing and Standardization
 - Digital printing technologies
 - Digital printing versus conventional printing methods
 - Quality assurance and standardization in digital printing
 - ISO 15311 / Process Standard Digital Printing
2. Colorimetry/Color Management in Print Standardization
 - New measurement conditions / standard light with defined UV portion for proofing and printing
 - ICC profiles for standardized printing conditions – A general view
 - Printing with stochastic screening – Requirements in prepress
 - Device Link Technology – Methods for color space adjustments and savings in ink consumption
3. Quality Assurance in Printing, Requirements of ISO 12647-2:2013
 - Possibilities of quality control in printing
 - Practical application of the print control strip
 - Tonal value increase and parameters
 - What's new in ISO 12647-2:2013

European Conference on Digital Print for Packaging 2015 in Berlin

PrintPromotion is official partner of the Digital Print for Packaging European Conference which will take place in Berlin on 8 and 9 December 2015. Smithers Pira has been organising Digital Print for Packaging Events on both sides of the Atlantic for a few years now. Brand owners, machine manufacturers and packaging providers get together and discuss the newest trends in digital print for packaging and share experiences from multiple perspectives.

Discount codes available for PrintPromotion partners.



Prospects of industrial printing

In June, the Industrial Printing working group established within VDMA held a meeting in Frankfurt. The members of the working group discussed future dimensions of industrial printing. Speakers were Professor Fritz Bircher (University of Fribourg / Switzerland) and Dr. Sean Smyth (Smithers Pira / UK). On the one hand, they highlighted technological aspects and, on the other hand, economic prospects of printing processes and their applications for industrial printing. A special focus was placed on inkjet technologies. The aim of the working group is to create transparency about printing processes and their applications for industrial printing, always with a view to technological and economic feasibility. In a next step, a map of research institutes dealing with industrial printing will be created.

Friedrich-Koenig Medal awarded to American digital printing specialist



In April this year, the Friedrich-Koenig Medal which is bestowed by the Forschungsgesellschaft Druckmaschinen research association in memory of the inventor of all printing machines, Friedrich Koenig (1774-1833), for outstanding merits in the field of printing technology was awarded to Ted Cyman, Vice President of Advanced Development at RR Donnelley, a leading provider of integrated communication services and the largest print provider in North America.

Cyman sees digital printing as a disruptive technology stressing that as digital print continues to improve, it is creating new opportunities to reach targeted audiences in a cost effective manner in our evolving world of multichannel communications. He emphasises that dynamics in the industry are changing

due to the ongoing technological advancements in digital print so that digital printing is the up and coming technology in the print area. Asked to what extent analogue printing will be displaced by digital processes he says that analogue has been the standard and if you need to print higher volumes of high quality static print, it is going to remain as the primary printing process; for short run variable printing, digital is growing as the preferred printing process, but there are quality limitations for the types of products that can be produced digitally. As the quality and efficiency of digital technology continues to improve, he predicts that more products will be able to utilize the digital printing process. Today, companies print graphic arts and communications but going forward printing will be utilised more and more for functional components, e.g., printed electronics. Print is no longer just for communicating with words and images but for new functions like passing electrons, RFID labels and antennas as well as printing metallic fluids.

Training partners abroad

PrintPromotion is in contact with training institutions around the world in order to strengthen the training efforts for the printing and paper industry world-wide. Its partner in Uganda is the Vision for Africa – Intl. Christian College.



1. Name of school	Vision for Africa – Intl. Christian College
2. Founded in	2007 as Vocation Training Institute, since December 2012 as a college
3. Number of students	Hotel Management: 51 students Media Design and Print Technology: 10 students

4. Number of staff	Hotel Management: 7 staff Media Design and Print Technology: 3 staff
5. Courses of study, duration and degrees	
a. Diploma degree courses	Media Design and Print Technology
6. Technical equipment	
a. Prepress	12 PCs with Adobe CS 6 Design Standard Bacher plate puncher Theimer plate exposure frame Gretag transmission densitometer
b. Print	Laser printer 4-colour A 3 Heidelberg GTO 52 – ZP
c. Others	Polar EM 76 cutting machine MBO K 72 folding machine Drilling machine
7. Fields of research	None
8. International activities	None
9. Contact	Vision for Africa – Intl. Christian College P.O. Box 675 – Mukono/Uganda Principal: Horst Kukuk Phone: +256 794 832 002 christiancollege@visionforafrica-intl.org www.visionforafrica-intl.org

Company news

New agency for Australia and New Zealand



From left to right: Peter Moffatt (Sales Manager WRH), Ian Martin (Manager Trade WRH), Christian Joost (General Sales Manager Baumann-Wohlenberg), Daniel Faesser (Managing Director WRH)

Since 1 May 2015, WRH Global Australia, with its headquarters in Matraville (New South Wales, Australia), has been the exclusive distributor for Baumann-Wohlenberg machines in Australia and New Zealand. CEO of WRH Global Australia is Daniel Faesser. The cooperation started on the occasion of this year's Printex in Sydney.

The products of Baumann-Wohlenberg, among them the cutting systems no 2 and no 3, the multi unloader BA-F as well as pile turners, perfectly complete the present product portfolio of WRH Global Australia within the finishing field. There are, in fact, already some common, promising projects.

At four locations in Sydney, Melbourne, Brisbane and Perth, WRH Global offer a broad portfolio of pre-press, on-press and post-press equipment and consumables for the graphic and packaging industry. At the same time, WRH Global Australia offers the complete services for these products as well as for existing Baumann-Wohlenberg machinery.

Baumann Maschinenbau Solms GmbH & Co. KG

High-performance cross cutter in extremely compact design

With the bielomatik CutMaster CFS 105 every type of roll material – carton, paper, foil and, of course, coated paper – can be cut without leaving marks. Pre-printed rolls, for example from the packaging sector, are processed register-true. The processing of sensitive high-end papers and foils such as coated and high-gloss materials is made possible by the use of the optimised overlapping and stacking system with VACU-Stop® and air injection technology. The robust cross cutter in the reliable paper factory standard offers extremely short changeover times in the smallest space thanks to its electronic cutting length conversion, and its fully automatic cutting, collecting and stacking procedure ensures that a minimum of personnel is required.

The CFS 105 was designed for print shops, paper wholesalers and packaging suppliers, amongst others, and can be integrated into both ERP and workflow management systems as well as used as an autonomous solution. For a limited period of time, the CutMaster CFS 105 is offered at a particularly low price.

bielomatik Leuze GmbH & Co. KG

Cutting systems in action

Seeing the machines in production, judging product samples, asking questions directly: this is why KAMA automatic die cutters are presented at national and international trade shows and in-house exhibitions.

This year Kama will participate in the ECMA Congress in Bucharest in Romania from 9 to 12 September in order to present efficient finishing solutions for folding cartons on demand. From 13 to 16 September, KAMA will exhibit the DC76 Foil Die Cutting and Finishing Machine with inline stripping and blanking as well as KAMA CPX Cliché/Die Positioning at the Graph Expo in Chicago. Efficient solutions for digital print finishing for commercial and packaging printing, i.e. the DC die cutters and the new FlexFold 52 folder-gluer will be exhibited at Dscoop Asia 2015 co-located with IGAS 2015 in Tokyo from 13 to 15 September. In Europe, visitors of LabelExpo Europe 2015 from 9 September to 2 October will have the chance to see a workflow for folding carton production with the first folder-gluer for short runs, the KAMA FlexFold 52 (table-top). This year's exhibition participation ends with Scanpack 2015 in Göteborg in Sweden from 20 to 23 October where a KAMA ProFold 52 (table-top) will be presented.

Kama GmbH

New Print Media Center Commercial at Wiesloch-Walldorf site reflects strategic reorientation



Over 500 customers came from all over the world for three days of celebrations to mark the opening of the Print Media Center Commercial in Wiesloch-Walldorf. The new Print Media Center Commercial covers an area totalling over 4,700 square meters

The transformation in the global printing industry has created new challenges for the entire sector. To meet customers' current and future requirements, Heidelberg has also undergone a transformation and reoriented its corporate strategy accordingly.

In addition to the traditional main markets of commercial and packaging printing, the product portfolio will also be geared further toward the global market's future growth segments, especially digital printing, consumables, and services. The focus is no longer simply on equipment, but far more on the integrated overall process and all the requisite components. This approach is now also reflected at the new Print Media Center (PMC) Commercial in Wiesloch-Walldorf and marks the start of the run-up to drupa 2016. Over 500 customers came from all over the world for three days of celebrations to mark the opening of the PMC Commercial, which covers an area totalling over 4,700 square meters. The centrepiece of the PMC Commercial is an innovative presentation platform that uses interactive media to illustrate the aspects of workflow, consumables, and services and highlight their role in the overall process from the customer's perspective.

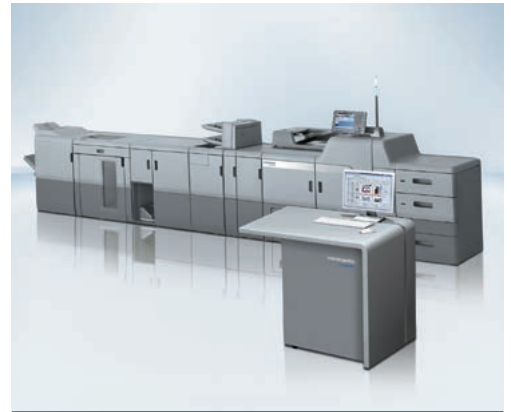
Together with the Print Media Center Packaging opened in 2008, Wiesloch-Walldorf now boasts a large demonstration centre for commercial and packaging printing. A total of 100 employees and 10 trainees work at the two Print Media Centers, conducting almost 1,200 customer-specific demonstrations in 2014. In addition to this, a total of nearly 2,000 visitors attended open house and other events. The two PMCs form part of the global Print Media Center Network that also serves the American and Asian markets with centres in Kennesaw near Atlanta and Qingpu near Shanghai. The regular Heidelberg Info Days cover every facet of activities – from digital, packaging, and UV printing to cost-efficient short-run production and the use of surface finishing to stand out from the competition.

Heidelberg Open Days are held on the third Thursday of every month and provide customers with an overview of the latest solutions without them having to register in advance.

Heidelberger Druckmaschinen AG

Heidelberg digital printing portfolio a success

Around the world, a growing number of customers are finding out just how easy it is to make the move to the digital printing portfolio based around the Linoprint CV/CP systems from Heidelberg.



From a single source: Heidelberg offers digital print users a full package of machinery, consumables, and services. Shown here, the Heidelberg Linoprint CV station.

On request, Heidelberg now supplies all Linoprint CV/CP systems with the Prinect Digital Frontend, which delivers greater automation and improved reliability for the production process. The Prinect Digital Frontend supports the seamless integration of the Linoprint CV/CP digital printing systems into the overall print shop workflow. This means that all print jobs can be centrally managed in one workflow system, irrespective of the production process selected. Furthermore, the Linoprint systems can also be controlled and operated on a standalone basis using the new Prinect Digital Frontend, thereby offering print shops running this configuration a state-of-the-art control console and a high degree of automation for producing their digital print jobs.

To ensure repeat jobs can be carried out with greater certainty and reliability, all work processes such as job creation, preflight checking, colour management, and imposition can be saved as linked sequences. This certainty in production also extends to the printing of personalized data. Furthermore, the Prinect Digital Frontend also supports the finishing options of the Linoprint systems, thereby enabling several print jobs to be produced ready for sale in a single operation.

Heidelberger Druckmaschinen AG

New software from Heidelberg helps save cost



The new Prinect Image Control color measurement system delivers significant material savings through measurement and control without print control strips. The color control elements are positioned between the individual repeats or on glue flaps.



The Proof Match function identifies identical repeats on the print sheet fully automatically, displays these on the monitor, and compares the coloring of the print sheet with the correct coloring on the sample.

When it comes to costs, every single millimetre of board counts for packaging printers. The latest software version of the Prinect Image Control color measurement system once again sets new standards in this respect. With this system, the development engineers at Heidelberg have succeeded in controlling coloring on the press using nothing but full tones and CMYK images on the print sheet. The process uses CIP4-PPF data (formerly CIP3) from the prepress stage and is highly automated.

In many cases, this means there is no need for a conventional print control strip at the edge of the sheet. Depending on order volumes, just this 4 mm reduction in the amount of board required can save between €20,000 and €40,000 each year. The new Prinect Image Control was demonstrated in early May this year at the Packaging Days in Wiesloch-Walldorf. A further benefit is the Proof Match option, which optimizes the uniformity of multiple ups on a print sheet. Now it is also possible to use digital proofs as color samples and set up the press accordingly.

The new software is available with immediate effect and can be retrofitted on all IPEX 2010 generation Prinect Image Control systems. Prinect Image Control can be connected to between one and four presses. Connection to all Speedmaster presses in the 52, 74, 75, 102, and 106 series is possible.

In addition to Prinect Image Control, Heidelberg also offers the Prinect Inpress Control inline color measurement system which is ideal for extremely narrow color consistency tolerances in applications such as hair dye packaging, labels, and also long runs on poor-quality board where paper dust quickly clogs up the blanket and thus affects the print image. It measures the entire print image and not just individual dots. This quickly detects and corrects any change to the print image.

Heidelberger Druckmaschinen AG

Visitor record at UV DAYS of IST METZ



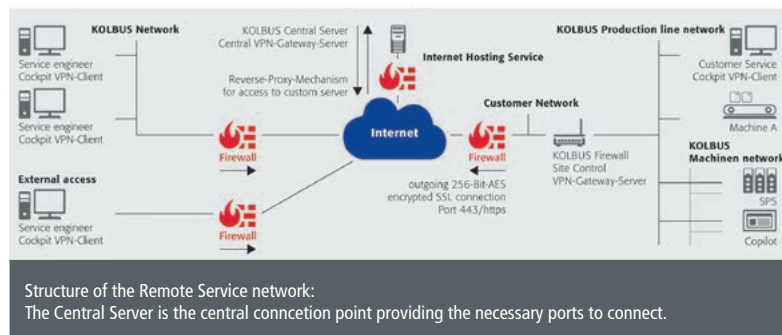
A stunning example of what can be produced with an UV LED system: The IST METZ guitar.

"UV rocks" was the motto of IST METZ for this year's UV DAYS. And UV did rock: more space, more guests, more exhibitors – the seventh edition of UV DAYS ended with a whole set of superlatives. 800 (2013: 600) visitors from all over the world came to Nuertingen near Stuttgart in Germany where the UV specialist has its headquarters. IST METZ informed about UV lamp technology as well as the increasingly popular LED technology. Both drying technologies were demonstrated with a cardboard guitar. The event comprised several printing demonstrations and lectures, company tours, lab tours and a large exhibition of 35 (2013: 26) partners from the printing industry.

There was also high demand for the paper guitar, this year's print gimmick for visitors. The printing of the guitar body, with the drying of inks and varnishes by means of UV light included, was demonstrated live, once with UV lamp technology and once exemplarily with a UV LED system. Furthermore, the finishing of the guitar neck with hot-foil embossing was shown, also cured by means of UV light. Any ordinary smartphone can be pushed into the folded head of the guitar. It is first clamped into a holder produced by the 3D printing process. The top of the head is closed with a cardboard tab. An app for Apple or Android devices developed specifically for the occasion can be loaded. It contains a game in which, similarly to when playing the guitar, the fingers of the left hand have to touch the correct strings to win points. In other words, the cardboard guitar really can be "played" digitally using the app. The next UV DAYS will be held in 2017.

IST METZ GmbH

Secure remote service – through encryption



Kolbus offers its customers a remote service option. The company's experts provide technical support around the clock. Once the customer has activated the online connection, the remote service engineer has access to the production line. To make the Remote Service more attractive, Kolbus has now integrated further value-adding services in the form of plug-ins. For the connection, Kolbus uses a java-based client-server solution with SSL-VPN connection encrypted by a 256-bit Advanced Encryption Standard (AES). Currently more than 150 customers with a total of almost 1000 machines are using this service. A VPN solution includes a Site Control Server, a central VPN Gateway Server and the corresponding VPN Clients. A support request can be sent using the customer operator interface. Any company choosing a Remote Service solution has to define its systems requirements. Each Kolbus customer has its own IT policies which have to be taken into account for the integration of the Site Control into the customer's network and for internet access. To make Remote Service secure, Kolbus aligns the existing IT concept with customer security guidelines. The customers themselves can use the VPN infra-structure to a certain degree so as to give them access to production data from their Kolbus machines via their mobile devices anytime, anywhere. For instance, a customer can upload live production figures, for example with a smartphone, from any location worldwide.

Kolbus GmbH & Co. KG

Non-toxic PUR hotmelts

PUR adhesives are firmly established in the bookbinding world. Due to their strong adhesiveness they are in demand above all where bonding is difficult. One disadvantage of PUR adhesives is the evaporation of isocyanate, a substance that is suspected of being carcinogenic. Therefore, PUR adhesive binders are equipped with suction devices which ensure that persons are not exposed to PUR emissions. Alternatively, there are the PUR adhesives which can be used at temperatures below 100°C, like, e.g., PUR 1265 from Planatol Wetzell. Since isocyanate only starts to evaporate at 100°C, isocyanate vapours are reliably avoided.

Planatol Holding GmbH

Expansion of product portfolio for single-sheet processing



There are practically no limits when it comes to the contour. Because a laser is used, no tool is needed so that batches from one single copy to several hundred can be produced very economically.



The innovative Digidut for extremely versatile applications

In Digidut, POLAR is offering a device for the creative processing of single sheets. The laser cutter can cut, perforate, crease and engrave even the most intricate contours in one pass – without the need for a tool change. Therefore, POLAR Digidut with its innovative laser technology opens up

numerous possibilities for digital and commercial printers. There are practically no limits when it comes to the contour. Because a laser is used, there are also no additional tool costs. As a result, batches from one single copy to several hundred can be produced very economically.

A small selection of products that can be manufactured with the Digidut includes: cards, invitations, envelopes, folders, writing paper, samples, business cards, place cards, lanterns, jigsaws, bookmarks.

The tool in the Digidut is a laser beam. Today, laser technology is already used in many areas of day-to-day life: from a simple light pointer (e.g. a laser pointer in presentations) or distance measuring devices through to CD players.

Laser cutting is a thermal separating method for flat-lying material. The material is processed without any contact, and therefore does not need to be fixed. The material itself is vaporized on the surface in fractions of a second as a result of the laser energy. This sounds more dangerous than it is. Like the cutting machines, the Digidut also meets the high POLAR safety standard, which is confirmed by the GS mark.

To see the Digidut in action, you can either have a live demonstration or watch the video clip: <http://www.polar-mohr.com/digidut>

POLAR Mohr Maschinenvertriebsgesellschaft GmbH & Co. KG

LED-UV & Traditional UV Conference at KBA

A large international customer event took place once again at KBA-Sheetfed Solutions in Radebeul, near Dresden, with the LED-UV & Traditional UV Conference from 24 to 26 June. The event was a resounding success with around 1000 print experts from more than 30 countries in attendance. This huge level of interest shows just how important the topic of UV printing in diverse variations has now become to the print industry and how important sharing knowledge is. The visiting print pundits were treated to two new product developments at once with practical live demonstrations of the Rapida 105 PRO unveiled at Print China in April and the inline Rapida RDC (Rotary Die Cutter).

The new KBA Rapida 105 PRO medium-format press was presented in theory and practice as a raised six-colour press with twin coaters for conventional inks, primers and UV coating. The new press scores points with its high level of variety in terms of kit (also perfecting) and fulfils the essential requirements of commercial and packaging printers. It will soon be on display in the KBA demo centre in Radebeul featuring a ColdFoil for high-quality cold-foil finishing. With speeds of up to 17,000sph and a high level of pre-set capabilities, the press offers somewhat more comfort and performance compared to the Rapida 105. The visitors saw a demonstration of a job change with a fast coating plate change and coating change as well as a substrate changeover from 250 g/m² (160lbs) to 1.1mm-thick. The new intuitive TouchTronic

operating system with a 16:9 touchscreen was a further highlight. All relevant information can be accessed on the touchscreen with a maximum of two touches. New features include comfortable job changing at just one press of a button (One Button Job Change) and the clearly arranged list of jobs. TouchTronic is expected to be gradually built into all new Rapidas in all format classes by the beginning of 2016.

A series of press demos was dedicated to UV and finishing: cold-foil kit in connection with HR-UV technology on non-absorbent substrates was shown on a six-colour Rapida 106 with coater and ColdFoil Micro. When changing jobs the visitors saw a switch from self-adhesive labels to PP film. This was in addition to a demonstration of an automatic anilox roller change with AniloxLoader and automatic coating plate change with DriveTronic SFC. Various print jobs were shown for work and turn on a new five-colour Rapida 75 with coater and LED dryer. One of the highlights of the demonstrations was the brilliant print quality on offset paper delivered by LED-UV.

KBA presented a job printed with in-mould film and low-migration LED-UV inks on a Rapida 145 (six colours with coater). This was followed by jobs demonstrating fast work and turn with three different types of paper (matt, gloss and offset). The focus of the job changes was placed on automation modules

for fast set-up, these include DriveTronic SRW (simultaneous roller washing) and DriveTronic SFC coater with AniSleeve sleeve changing.

The Rapida RDC was also unveiled at the open house. It features a rotary die-cutter based on Rapida components that can run at speeds of up to 14,000sph. It is equipped with various automation modules for reducing start-up times (e.g. automatic cutting die change). Its intuitive operating concept is based on that of other Rapida presses. Job profiles can be stored shortening makeready when processing repeat jobs. Furthermore, it can be flexibly integrated into MIS systems offering the user complete transparency within their company. Existing systems, such as KBA LogoTronic, can also be applied.

Grooving and embossing took place in the Rapida RDC's first unit and die-cutting took place in the second. After a quick cutting die change in the second unit, the visitors were treated to die-cutting of self-adhesive labels.

Koenig & Bauer AG (KBA)



As always, the international guests were amazed by high-quality and real-world print samples.



Together with experts from ink, coating and dryer manufacturers as well as representatives of FOGRA and the trade association, key account manager Jürgen Veil discussed questions from the audience related to printing with LED-UV.

50 years of unit-type sheetfed offset presses from Radebeul



The KBA Rapida 106 world makeready champion is also based on the invention from the 1960s.

At the beginning of the 1960s engineers at the Planeta press plants (a member of the KBA group as KBA Radebeul since 2001) created today's dominating unit-type design for sheetfed offset presses and launched the Planeta Variant P4 (B3 format) at the spring show in Leipzig in 1965. The future-focused design was even applied to large-format presses from Radebeul only two years later. This was one of the technological milestones which fundamentally changed sheetfed press engineering with double-size impression and transfer cylinders. It goes without saying that the basic inventions have been updated regularly over the last 50 years and brought up-to-date technologically.

Koenig & Bauer AG (KBA)

KBA sheetfed solutions on the path to the "Internet of Things"

The graphic arts industry has changed immensely and forces the supply industry to make organisational changes. KBA therefore recently took this shift into account by spinning-off business units operating on the market and production activities from the future holding company. But that is not enough: In parallel, experts from the company's largest business unit KBA-Sheetfed Solutions have been working on a new global sales, service and marketing strategy. As part of this, meetings have been taking place regularly with representatives from the subsidiaries. The strategy's goal is 'digital business transformation' – the optimisation and transparent organisation of all business processes and the development of new business models in accordance with Industry 4.0 and the Internet of Things. The findings and processes are expected to be transferred to other KBA business units at a later date.

Koenig & Bauer AG (KBA)

Reduced risk of downtimes

Will-Pemco's Technical Improvement Program (T.I.P.) for cut-size sheeters provides, based on current technology, dedicated solutions for customers to increase the availability of their existing equipment, to reduce maintenance costs or to improve product quality.

The existing Kuhnke controllers that adjust the position of the knives in the automatic slitter knife station at the single or dual slitter of certain E.C.H. Will flexible cut-size sheeters (6 to 8 pockets) and at folio-size sheeters (type GFS 216, GFS 282 and GFS 283) are no longer available. The new module T.I.P. C 1205 replaces the obsolete Kuhnke positioning controllers as well as their corresponding gear motors with modern stepper motors. This greatly reduces the risk of unplanned downtime and ensures spare parts availability. In addition, the new motors, controlled by stepper motor terminals and S7 machine PLC, move the slitter knives smoothly and precisely along a spindle to their required position, making the adjustment of the knives significantly easier. The improvement comprises all required parts, the necessary engineering and programming and updated documentation pages for relevant sections.

Will-Pemco GmbH

Joint presentations for paper mills and converters

In April 2015, Will-Pemco, together with its sister brand MarquipWardUnited and overall brand BW Papersystems, participated in the first edition of the Asian Paper show in Jakarta in Indonesia. In the focus were flexible solutions for sheeting cut-size paper as well as cost-efficient and modular folio sheeting machines for paper mills and converters. In addition, visitors could learn more about semi to fully automatic folio ream wrappers to reduce manual processes in packaging paper, board or other sheet materials.

BW Papersystems, since being established in June 2014, following the acquisition of E.C.H. Will and Pemco – now renamed Will-Pemco – combines strong brands, innovative technologies and longstanding experience for the paper and board sheeting and converting industry as well as for the corrugating industry. BW Papersystems offers state of the art technology for folio, cut size and digital sheeting and packaging machines, plus stationery, passport production and specialized paper converting applications. For the corrugating industry, customers can continue to rely on the well known brands MarquipWardUnited, Curioni and VortX. With manufacturing plants in USA and Europe, parts and service centers in the USA, Germany, Mexico, Brazil, Singapore and Shanghai plus an effective global team of aftermarket parts and field service, BW Papersystems offers a lasting commitment to its customers.

The next joint presentation will be at the China International Paper Technology Exhibition and Conference in Beijing in China from 16 to 18 September 2015.

Will-Pemco GmbH



An important moment for the children in Muyaga. The laying of the foundation stone of a school building.



A special moment: Frank Mutschler meeting his namesake Frank who goes to school in Cankuzo.



The elementary school in Gatete in the province of Cankuzo where up to 400 children can be taught in child-friendly and safe buildings.

Six days in a different world: **Burundi**

In August 2010, Timo Mosca, CEO of Mosca, suggested to support an international social aid project. Mosca has been a major supporter of regional projects for decades, but the idea of stepping onto the international stage represented a new challenge. It was decided to get in touch with the charity World Vision. In March this year, Frank Mutschler, Head of Market Communication at Mosca, set out to the African landlocked country Burundi, and he came back with the conviction that help was given at the absolutely perfect place. Here is his report:

"The impressions overwhelmed me right from the start: What I saw was far from tourist infra-structures. I experienced really breath-taking moments and sceneries – a country with deep scars and challenges, but, at the same time, very charming and committed people. One of the challenges is clearly the question about the perspectives for the population. Education is a central basis of sustained development in Burundi. This is exactly where World Vision starts and invests donated funds for education and training, pre-school projects (Reading Camps), schools, farming projects or micro-credits for young women. All these things were waiting to be seen during my journey.

On arrival in the capital of Bujumbura, we were greeted by two German World Vision employees. The next morning, we set off to Cankuzo, the easternmost province of Burundi and one of the poorest regions in Burundi. I had expected a lot of things, but I wasn't

prepared for such a stunning scenery. Rarely have I seen such a diverse and gorgeous countryside. The province is dominated by a vast upland that descends like a series of steps from 1800 meters in the west to 1200 meters in the east. The upland consists largely of wet savannah and the mountain areas of tropical rain forest, while the northeast is made up of extensive wetlands.

Wave of warmth

When we arrived in Cankuzo, a fully packed agenda beginning with a school project in Gatete was waiting for us. We were greeted by numerous curious children shouting "Muzungu!" – a word we were to hear repeated many times in the next few days. In Kirundi, this means "white person". You are conspicuous as a white person in Burundi, at least in the rural areas: Away from the capital Bujumbura, few whites tend to stay for long. The kindly Letizia, who worked for World Vision in Cankuzo, told us that we should respond with a friendly "Amahoro", meaning "hello".

More than 400 children greeted us with African dances and singing. We were met by a wave of warmth, a "special feeling" that's very difficult to express in words. The school and grounds could hardly be beaten in terms of cleanliness and neatness, World Vision inaugurated the first building of the Gatete elementary school in September 2012 already. Since then, the school has been in a position to teach up to 400 children in child-friendly and safe buildings. Most of

the children have to walk up to five kilometres to get there each morning. An additional building houses the staff room and a small library; large blackboards have been mounted outside the classrooms, so that all the villagers can learn together. Furthermore, a new building for the accommodation of teachers was completed in 2013. One very important aspect was the construction of two new toilet facilities and the installation of hand-washing equipment in front of each classroom to reduce the spread of diseases. A real victory on the road to improving hygiene conditions at the school.

Enjoying learning

Afterwards we went on our way to lay the foundation stone of another school building in Muyaga and World Vision's recently launched "Reading Camps" which are intended to promote the reading and writing skills of children aged 3 to 6. In simple huts made from mud and banana leaves, volunteers help preschool kids in their first reading and writing attempts. I have never seen such enthusiastic learning among children as I experienced in Burundi, and I could hardly believe that almost all 3-6-year-olds who attended the Reading Camp were able to read and write. Many more of these Reading Camps are to follow.

For a better balance

With special "FARN" projects World Vision intends to fight malnutrition among children and to this end, give

mothers training in nutrition, cultivation and cooking skills. The women learn how to prepare nutritious and balanced meals using locally available foods – which is necessary to make sure that children can develop healthily. In Cankuzo, however, many children are malnourished. One very special moment was when I met my little namesake “Frank”. He came up to me, showing no fear of contact with the big, grey-haired man, laughed and played with me. It was at precisely this moment that I knew our donations had arrived at exactly the right place and with the right partner. Two hours later, it was once again time to say goodbye. With a heavy heart we continued our round of visits. As we continued our journey through the province,

we were given the opportunity to visit a pineapple plantation (forget for a moment anything you thought you knew about pineapples – freshly cut from the shrubs they taste completely different). Through training activities, World Vision has already helped 7,500 smallholders to apply resource-saving methods of farming. As a result, some of them have already increased their incomes by at least 20%. And we also got to know women’s savings groups: Through joint savings, the members build up their own capital. From this capital, they can in turn mutually fund small loans, which are used as seed money for ideas. A good idea and a path out of poverty.

What happens next?

Over the next three years, working together with World Vision, Mosca will support many more educational projects in Cankuzo – build more new elementary schools, renovate or extend existing facilities. In addition, we wish to invest even more in the quality of education: Not only in the training of teachers, but to achieve this goal it is also important that other family members and neighbours help in this work. We will ensure that they get the support they need. Amahoro!”

Mosca GmbH

Mosca EVOLUTION SoniXs TR-6 Base and Pro models now available with fully automated strap change



One machine, two models: The fully automated Mosca SoniXs TR-6 strapping machine is available in Base and Pro models. Both are equipped with a Standard-6 strap path system to ensure high-quality strapping results with maximum process safety. A fully automated double strap dispenser changes straps as soon as a coil is empty. The empty coil can be replaced without interrupting production – to avoid costly downtime.

Last year, Mosca introduced Base and Pro versions of their fully automated SoniXs TR-6 strapping machine for the entry level and high-end range. This was made possible by an efficient modular design and unique modular control concept based on a Standard-6 strap path system. Both models are now available with a fully automated double strap dispenser that picks up two strap coils and automatically starts the strap change as soon as the first coil is empty. This makes things much easier for the operator and at the same time increases machine availability.

For many years, Mosca has used modular construction and a consistent shared component concept for their machines. This is clearly reflected in the two SoniXs TR-6 models. Strap guide frame, strap feeding unit, strap coil and the SoniXs ultrasonic sealing unit are

identical in both the Pro and Base models. Strap path components can be easily disassembled without tools, which is essential for maintenance and repairs.

A new feature on both machines is the fully automated double strap dispenser. Instead of a single coil, the SoniXs TR-6 Base and Pro models work with two coils. When one coil is empty, the machine automatically picks up the second coil and changes the strap. Production continues uninterrupted and the operator can flexibly change the empty coil without stopping the machine. This not only prevents expensive downtime, it increases machine availability.

Both SoniXs TR-6 models are ideal in operations that demand high availability and process safety. These include corrugated cardboard processors, wholesalers, printing companies, logistics, food and pharmaceutical industries.

The fully automated SoniXs TR-6 Pro strapping machine owes its high performance to a revolutionary control concept for strapping technology and a number of technical refinements. Versatile strapping programs and a variety of machine parameters can be easily set up via color HMI touch panel. The detailed message display on the Pro model firmly supports the machine’s process safety. The machine is fully network-compatible. It is possible to run diagnoses via online remote maintenance from anywhere.

The machine can be remote controlled through a connected computer, which makes it ready for Industry 4.0 – an era in which machines communicate directly with each other. With just a few mouse clicks, the machine’s status can be determined with complete transparency. Software updates are also available online.

Available in four different frame sizes, the machine straps up to 45 packages per minute with six different strap widths ranging from 5 to 12 millimetres. The Pro model also has a CE marking from the factory and can be easily integrated into existing systems.

The highly flexible strapping editor is a real highlight. It enables a wide variety of settings from package to package. Operators can define various strapping formulas and save each one with key data, including transport speed, strap tension and package dimensions. If required, strapping programs can automatically select a formula according to previously defined “events” triggered by external interfaces, sensor signals or QR codes. This enables the machine to differentiate between many more package parameters. In addition to the length, the package color, height or position of various product characteristics can be processed. The program automatically chooses the right formula. This creates many new options for handling products more efficiently.

For customers who want to combine two identical machines at a right angle to each other for cross-strapping Mosca offers the angle pusher. The angle pusher which lines up and guides packages between both machines has been redesigned so that it comes with a CE marking from the factory without additional safety devices. This makes it much more accessible for the operator. Actuators are designed to ensure the net energy is sufficient for the machine’s optimal performance, without posing a danger to the operator.

Mosca GmbH

W&H Expo a huge success

With more than 1000 attendees from 61 countries, two world premieres and several new developments, the W&H EXPO, held on 10/11 June 2015, was the most successful one that W&H has hosted. The motto of the EXPO was Packaging 4.0, inspired by the German Industrie 4.0 project referring to the fourth industrial revolution.

One highlight at the EXPO was the premiere of the AQUACAGE, the world's first adjustable water calibrator, which runs with the AQUAREX blown film line. Before this development, the flexibility of the line was limited by its single-sized calibrator. Every film width change required the calibrator to be switched out. The AQUACAGE enables width changes without the extra steps, providing customers with more flexibility and enlarging the range of possible applications.

The second world premiere was TURBOCLEAN, the new automatic purging system for the VAREX II blown film. W&H showed how resin change-over times of a 3-layer film could be dramatically reduced. Thanks to new automation modules, what used to take a machine operator 30 minutes to do has been shortened to just 2 minutes. This is possible due to a combination of an intelligent control algorithm with the automatic pneumatic cleaning of gravimetric and vacuum conveyors.

Other developments shown at the EXPO included: The first OPTIMEX blown film line in five-layer configuration producing a novel 5-layer stretch hood film; the newly developed AD PLASTIC 2 bottomer for heat sealed valve sacks made from plastic film; the MIRAFLEX S flexographic press for smaller repeats; and the FILMEX cast film line producing very thin "taut" stretch films for reliable load securing. The term "taut film" describes stiff film with minimal elasticity, that regardless of its 8µ thickness has extreme holding force and puncture resistance. This film allows even simple stretch automats to achieve reliable load securing.

Visitors found it particularly interesting to see PACKAGING 4.0 in action, which W&H demonstrated by connecting more than one production process. An example of this was the VAREX II blown film line running thin, breathable backsheet diaper film that was then brought over to the VISTAFLEX flexographic press for high-speed printing. At the EXPO, W&H demonstrated the kinds of possibilities the 4th industrial revolution brings by connecting production lines and data streams in the manufacturing of packaging. Customers and W&H opened other dialogs about future projects in which PACKAGING 4.0 plays a role.

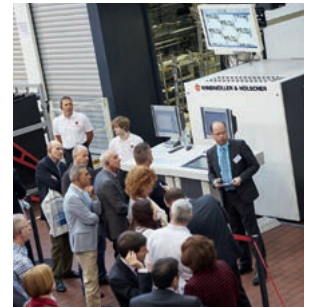
WINDMÖLLER & HÖLSCHER KG



W&H expert explaining the tube forming process on the POLYTEX tuber for PE film and / or PP woven fabric.



Stunned by the smooth operation of the diameter-variable AQUACAGE: visitors watching the new feature of the AQUAREX blown film line.



The recurring demonstrations of the MIRAFLEX CM10 CI flexo press attracted considerable attention.

Energy-efficiency certificate for blown film lines

TÜV Süd, a service and testing organisation based in Munich, has issued an energy efficiency certificate for the W&H Optimex and Varex blown film lines in 3- to 9-layer configurations, confirming "best available technology" not only for individual components, but for the complete series of blown film extrusion lines. The certificate can be used as proof of the energy efficiency of newly purchased W&H blown film lines. In Europe, it enables to obtain a certificate according to ISO 50001, e.g., for the partial exemption from the Renewable Energy Reallocation Charge.

WINDMÖLLER & HÖLSCHER KG



Dr. Bungert (TÜV Süd, left) hands over the energy efficiency certificate for the W&H blown film lines to Dr. Falco Paepenmüller (General Manager Business Unit Extrusion Equipment at W&H).

Printers' Guide

Gravure printing

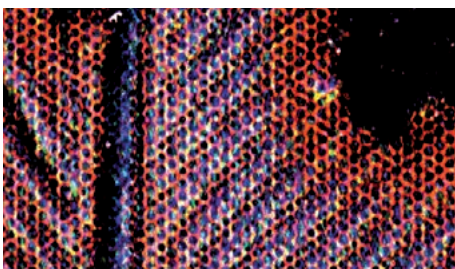
1. Gravure printing methods at a glance

1. Printing plate production
2. Doctor-blade based gravure printing
3. Pad printing

The gravure printing process

Gravure printing is one of the four conventional major printing methods. Secondary processes are, on the one hand, the manual, artisanal techniques like copperplate engraving and dry point and/or etching and, on the other hand, the industrially used doctor blade systems, pad printing and intaglio printing. Within the industrially used methods, doctor blade based gravure printing plays a leading role. As far as the doctor blade based gravure printing process itself is concerned, a difference is often made between illustration gravure printing, gravure packaging printing, including gravure label printing and decorative gravure printing. All gravure printing processes originate in copperplate engraving. This technique was developed in Europe in the Middle Ages already and brought to perfection by real masters of their craft. Many of these works have survived for centuries and are now important sources of information for historians.

Copperplate engraving was later supplemented with etchings with a needle. With the start of industrialisation, gravure printing was first mechanised and then ripened into a full-fledged industrial printing method. An important stage in this development was the implementation of multi-colour gravure printing.



Typical gravure cell structure within an image area

In 1783, Thomas Bell received an English patent for multi-colour roller printing on textiles. In 1820, the American Jacob Perkins improved copperplate engraving and developed steel engraving thus creating the bases of modern banknote printing. Numerous experiments with the first gravure printing machines and the enormous demand of publishers to decorate their newspapers and magazines with multi-colour images advanced these developments.

In 1910, the Easter edition of Freiburger Zeitung was published with supplements in which multi-colour images produced in gravure printing could be seen. Doctor-blade based gravure printing rapidly established itself as the leading process for mass publications with a large number of images in the so-called illustrated magazines.

The basic principle of this printing method

The basic principle of copperplate engraving has been retained until today and is used in all different gravure printing processes. The motif that shall be printed is produced in the form of cells of different size on the surface of the printing plate. This can be achieved by means of engraving, etching or as is the case in pad printing by exposing and washing out a photopolymer printing plate. Between the cells, there are the walls. These very narrow, non-printing areas support the doctor blades during the printing process and prevent the printing form from being worn by the scraping process.

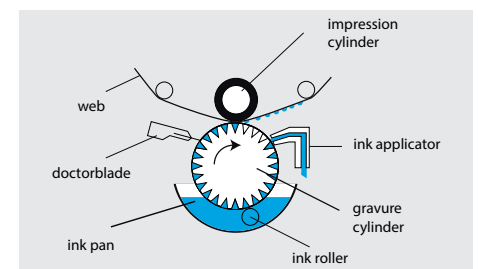
The printing process itself is an easily understandable process. The cells of the printing forme are flooded with ink, then the excess amount of ink is removed from the surface through the scraping process. The result is filled cells that contain different amounts of ink depending on the printing motif. The ink transfer to the substrate takes place through the short



Typical gravure cell structure within a text area

ink/substrate contact in the printing nip, i.e., the impression cylinder presses the substrate against the printing forme. The hard surface of the printing forme requires the impression cylinder to be soft. Therefore, the impression cylinder is coated with an elastic rubber layer. The hardness and elasticity of this rubber layer has an essential influence on the ink transfer during the printing process. A soft impression cylinder results in a wide printing nip and a correspondingly longer contact time between the substrate and the printing forme. As a result, the ink can be transferred optimally from the cells. The printed image looks soft and is rich in colour tones. A hard impression cylinder reduces the printing nip and results in a hard and contrast-rich printed image. In pad printing, the soft-elastic pad is an intermediate carrier and acts as the impression cylinder transferring the ink from the printing forme to the substrate, and/or the surface to be printed on. The low-viscous inking systems which are often used in doctor-blade systems require sufficient drying after the printing process before any further layer of ink may be applied.

Therefore, the printing units are equipped with an integrated dryer. The web-fed substrate runs through a drying section immediately after the printing unit where, e.g., the running web is heated by means of an impact jet drying unit and the solvent evaporates out of the humid ink film. A sufficient length of the web run and high dryer performance ensure rapid and sufficient drying of the fresh ink film. The combination of printing unit and dryer gives the doctor blade system a characteristic look which differs only with regard to its dimensions. Ink application in multi-colour printing takes place wet-on-dry. Therefore, the doctor-blade systems are constructed in unit-design. The long web path in the dryer of multi-colour machines adds up to a considerable length which quite often comprises a three-digit number of metres.



Scheme of the printing unit of a gravure printing machine

Fields of application and gravure printing products

Illustration gravure printing is still an important method for the production of periodically published illustrated papers and magazines with long runs despite the declining lengths of runs and profitability. Other products that add to the capacity utilisation of the printing companies are catalogues and advertising supplements. During recent years, web-fed offset printing improved to become a strong competitor of illustration gravure printing.

Gravure packaging printing is the second big domain of doctor-blade based gravure printing. Supplementing flexo printing, packaging made of film/foil, carton and composite materials as well as labels are produced, partly in a process combining both methods. A special niche are highly enhanced folding cartons for the cigarette and cosmetics industry.

In decoration gravure printing, special papers, films/foils, composite materials as well as fibre fleece for the wallpaper and furniture industry are printed. Growing fields of application are special coatings and the transfer of functional layers onto a large diversity of substrates.

Intaglio printing is and remains one of the most important processes for the production of banknotes. Now, many hybrid techniques are used in banknote printing and different processes are combined to achieve higher forgery protection. Nevertheless, intaglio printing is the leading method for the production of aesthetic and sophisticated motifs with finest lines and elements, relief-type embossing and high colour intensity.

Since the 1960s, the industrial processes are supplemented with a direct gravure printing method, i.e., pad printing. Pad printing finds its domain in the

printing of three-dimensional objects, e.g., plastic moulded parts. In comparison with other printing methods, the printed area is rather limited to just a few centimetres. On the other hand, this method also enables to print one or multiple colours on irregular surfaces. Using a variety of pad shapes and hardness, nearly every surface structure can be achieved.

Pad printing is applied in the decoration of advertising materials, bottle caps or models. In the automobile and electrical industry, this process is used to produce, e.g. markings and decorations on switches, operating elements or housings.

Ronald Weidel (azp Chemnitz)

PrintPromotion Partners

 <p>Baumann Maschinenbau Solms GmbH & Co. KG www.baumann-mbs.de</p>	 <p>bielomatik Leuze GmbH & Co. KG www.bielomatik.com</p>	 <p>H. C. Moog GmbH www.hcmoog.de</p>	 <p>Heidelberger Druckmaschinen AG www.heidelberg.com</p>
 <p>Gallus Stanz- und Druckmaschinen GmbH www.gallus-group.com</p>	 <p>IST METZ GmbH www.ist-uv.com</p>	 <p>Kama GmbH www.kama.info</p>	 <p>Koenig & Bauer AG (KBA) www.kba-print.com</p>
 <p>Kolbus GmbH & Co. KG www.kolbus.com</p>	 <p>Mosca GmbH www.mosca.com</p>	 <p>Planatol Holding GmbH www.planatol.de</p>	 <p>POLAR MOHR Maschinenvertriebsgesellschaft GmbH & Co. KG www.polar-mohr.com</p>
 <p>Will-Pemco GmbH www.echwill.com</p>	 <p>WINDMÖLLER & HÖLSCHER KG www.wuh-group.com</p>	 <p>31. Mai - 10. Juni 2016 Düsseldorf www.drupa.de</p>	

Imprint

Published by PrintPromotion – Corporation for the Promotion of the Printing and Paper Converting Industry

VDMA
Printing & Paper Technology

Postal address:
PrintPromotion GmbH
Lyoner Strasse 18
D-60528 Frankfurt am Main
Phone: +49 69 6603-1453
Fax: +49 69 6603-2453

e-mail: info@printpromotion.de
Website: www.printpromotion.de
Twitter: [Printpromotion@promotion4print](https://twitter.com/Printpromotion@promotion4print)

Managing Directors:
Dr. Markus Heering
Dipl.-Vw. Holger Breiderhoff



PrintPromotion