# HEIDELBERG NEWS The Customer Magazine Since 1930 · No. 280 · 2017 LEADING LIGHT INTERVIEW WITH CEO RAINER HUNDSDÖRFER **CIDEYEG** IN TERRASSA **FLAWLESS** ZERO TOLERANCE FOR ERRORS IN PACKAGING PRINTING HEIDELBERG

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HEIDELBERG NEWS 280 CONTENTS



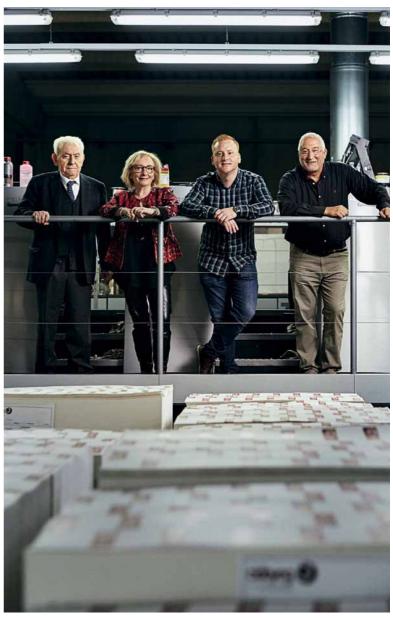
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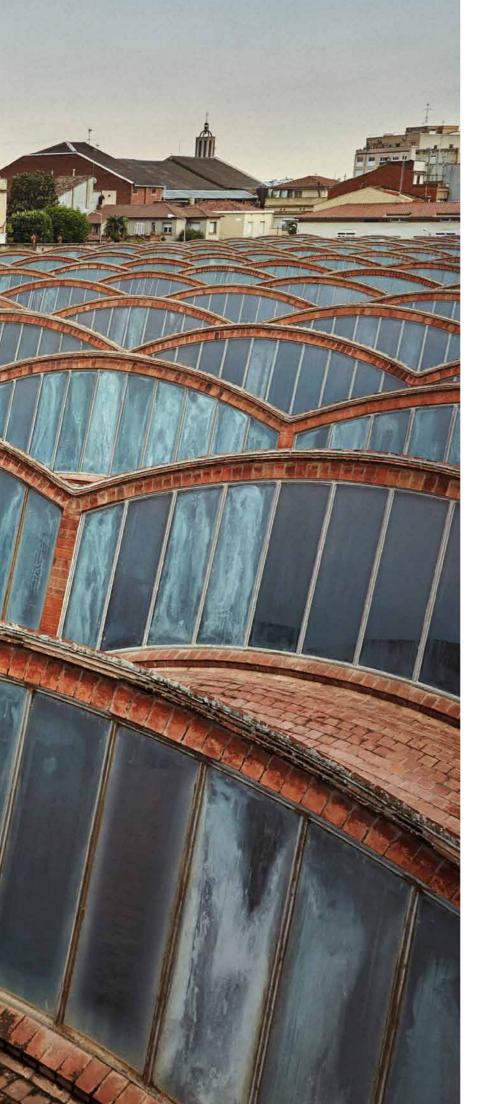
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Upcycling transforms materials that have been discarded or are surplus to requirements into everyday items such as furniture, fashion, decorative objects and sometimes even entire homes.

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### **SNAPSHOT**

# STANDING THE TEST OF TIME

In 1907, Catalan architect Lluís Muncunill created the Vapor mill for textile company Aymerich, Amat i Jover in Terrassa. Named after the steam engines that powered the looms inside, the mill was one of the highlights of modern industrial architecture at the time. Close by, in the 1960s, Salvador Vilanova laid the foundations for the Cideyeg print shop which, unlike the textile industry, is still located here (see page 12). The textile mill was shut down in 1978 and now houses the mNACTEC Museum of Science and Technology of Catalonia. Rest your ear against one of the windows in the 161 shell-shaped half arches and, with a bit of luck, you'll still hear the clatter of the old industrial equipment.

P.S. Write to us at

#### heidelberg.news@heidelberg.com

to let us know how you like the HN. We look forward to receiving your comments, whether positive or negative.



# EVERYTHING OUT OF THE ORDINARY

Packaging producer Multi Packaging Solutions (MPS) in Scotland, part of the Westrock Group, is the ideal partner for going that extra mile. Heidelberg recently installed the first Speedmaster XL 106 with 18 units at the print shop in East Kilbride, south of Glasgow. With 11 printing units, three coating units, four drying units and a FoilStar inline cold foil system, it is the most versatile press that Heidelberg has ever manufactured for packaging printing. MPS produces high-end packaging with exceptional finishing in premium quality for designers and manufacturers of branded goods from all over the world, and demand is rising. With the new Speedmaster XL 106 – which has been installed next to a press with 17 printing units – the company can now "handle even more processes inline and with absolute quality control," says Tim Whitfield, EVP European Branded Consumer at MPS.

One of the applications for the new press, which prints at a top speed of 18,000 sheets per hour, is whisky folding cartons with printing on the reverse, cold foil finishing and double coating. "We make packaging for everything from premium spirits to high-end gourmet confectionery. Manufacturers of branded goods can now enhance their packaging with even more colors, foils, matt, high-gloss or pearly luster surfaces and spot or full-area finishing," says David Rae, Print Champion at MPS East Kilbride. To ensure zero-error production and top color quality, the new Speedmaster XL 106 at MPS is equipped with the Prinect Inspection Control 2 and Image Control 3 quality and color measuring systems. "We've tested Image Control 3 extensively and have also been able to incorporate our requirements," explains Rae. "As a result, for the first time we have the option of measuring and controlling opaque white using a completely standard quality control strip. At our suggestion, Heidelberg has made this function even more reliable. The target color values can now be saved and accessed much more easily and the whole system has become a lot more user-friendly."





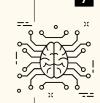
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percent - the projected annual growth rate for the label market in 2018 according to market research institute Freedonia, Global sales will increase from around 108 billion to more than 114 billion U.S. dollars (96 billion euros). Paper is still the most popular label printing material, but the demand for plastics, recycled products and other materials such as metal foils is growing.

Source: http://etiketten-labels.com/dossiers/ globale-trends-fuer-den-etikettendruck

### **KICK-OFF**





## SIGN OF THE TIMES

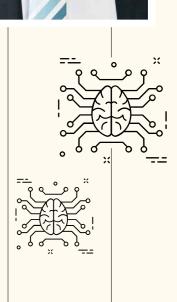
**By moving the research and development center** from Heidelberg to Wiesloch, we're bringing together what belongs together – and also setting a record.

By Frank Kropp



e deliver more than 40 percent of our presses with "special contents" developed specifically for our customers, so what could be more logical than bringing production and research together? That's one of the reasons why our research and development center will be leaving Heidelberg and gradually relocating to Wiesloch over the coming months. Hall 10 in Wiesloch measures some 430,000 square feet (40,000 sq. m) and is ideal for our new innovation center. An office area of some 270,000 square feet (around 25,000 sq. m) with adjacent laboratory and test area will also be created. Since the beginning of the year, what is probably Europe's largest creative office has been taking shape in the immediate vicinity of the Print Media Center Packaging and Print Media Center Commercial. By the end of 2018, more than 900 people will be working at this innovation center. Engineers, developers, programmers and staff from numerous other disciplines based here will provide new ideas, better solutions and more intelligent technology for our products. To allow sufficient space for creativity, the new research and development center incorporates many aspects of the workplace of the future - bright rooms, a large number of areas for communication, possibilities for

individual and group work, areas for flexible work practices, an atrium as a central meeting point and even outdoor workstations with WLAN and their very own power supply. This means we are well placed to achieve optimum work results and also to attract and retain qualified specialists in the future. It's no coincidence that we're taking some tips from successful role models such as Google, Apple and Tesla, because one of the biggest challenges in the years ahead is establishing how digitization will affect our lives and our work and what Industry 4.0 means to us all. The tasks of research and development center staff will include using new ways of thinking and working to find answers to these very questions. The proximity to production, but above all the proximity to our customers, plays an essential role in this regard. Their wishes and requirements create the basis for our development work, which is ultimately manifested in machines and software solutions. And so we come full circle.





#### FRANK KROPP

is Head of the Research & Development department at Heidelberger Druckmaschinen AG.



### **PRINTING FROM ANOTHER AGE**

A small village on the edge of a forest, directly on the Kall river in Germany, is home to the Papierfabrik Zerkall paper mill, which is in a brick building. Mould-made paper has been manufactured here for more than 110 years. Zerkall is one of the last six companies in Europe that still use cylinder moulds for production. This is a leisurely process, with around 880 to 1,100 pounds (400 to 500 kilos) of paper being produced in 2.5 hours - a fraction of the production at a modern paper mill. However, the results are very special, with a gently fraying deckle edge. When the sheet is held up against the light, it becomes brighter - that is to say, thinner - toward the edge. This quality feature cannot be added later. Letterheads, cards, envelopes and custom-made products are of correspondingly high quality and, what's more, unique. As well as international artists who use this mould made paper for their printwork, a number of sheets can also be found in the safe of the German president. The Basic Law for the Federal Republic of Germany was printed on mould made paper from Zerkall and signed in 1949. It is only taken out for the inauguration of the German president or chancellor.

#### Zerkall

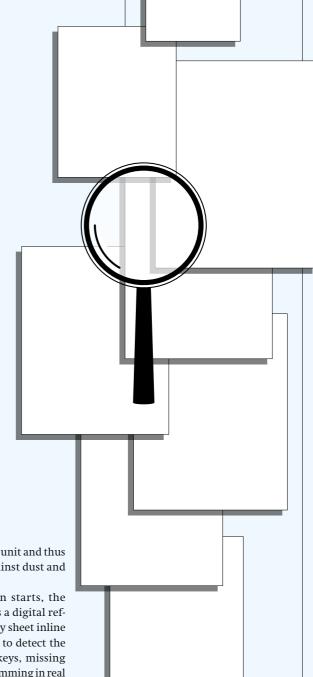
A project devised in conjunction with Römerturm Feinstpapier and V8 Verlag shows that mould made paper can even be used for offset printing of photobooks. The 192-page photo story book "Zerkall. Die unzeitgemässe Geschichte der Eifeler Büttenpapierfabrik Zerkall Renker & Söhne" (Zerkall Renker & Söhne: the story of a paper mill from another age) with 95 color photographs was produced on a Speedmaster CD 102 from Heidelberg. It can be ordered directly from Römerturm for 48 euros.

www.roemerturm.de

gefeuchtet am

# TAKING WASTE ELIMINATION TO A NEW LEVEL

Rogue sheets are a thing of the past with the waste ejection system of the Speedmaster XL 106, which automatically removes defective sheets even during production, and does so with total precision and exactly in line with the printer's quality requirements.





hether setting up a press, washing blankets or changing plates, waste is not always avoidable. In packaging printing in particular, where even the tiniest of errors are unacceptable, defective sheets need to be detected precisely and filtered out reliably. The waste ejection system from Heidelberg helps print shops with a fully automated process. Based on the principle of eliminating errors where they arise, the Speedmaster XL 106 removes waste during production at up to 18,000 sheets an hour. "Waste is removed with absolute precision and at any speed, regardless of the material," explains Axel Koppey, Product Manager for the Speedmaster XL 106 at Heidelberg. "The entire process is more efficient and the results are of higher quality." This is because defective sheets do not even make it to postpress. Manual removal - where a defective sheet sometimes ends up with the OK sheets or in the die cutter, despite being marked as waste - is a thing of the past.

The Prinect Inspection Control 2 system with two high-resolution color cameras ensures early detection of print errors. It is

fully integrated into the coating unit and thus provides perfect protection against dust and splashing water.

When OK sheet production starts, the system automatically produces a digital reference sheet and compares every sheet inline with it. The system is thus able to detect the smallest of errors such as hickeys, missing print, streaks, smudging and scumming in real time. If necessary, it activates the waste drum, which reliably removes the defective sheet from production in a gripper.

Printers are also free to define further parameters for each print job – for example, to ensure a sheet is removed automatically in the event of a pulling error. This is particularly useful for disposing of waste immediately. "The flexible handling reduces operator workload and increases cost-efficiency," says Koppey. However, for expensive materials, the Speedmaster XL 106 can also be configured to mark defective sheets using a tape inserter. Individual repeats are not then removed till they are in the folding carton gluing machine, for example.

The waste ejection system thus supports a Heidelberg performance promise in the form of zero-error production (see also page 20). "The automatic monitoring and ejection streamlines the production chain and reduces manual intervention. Packaging printers can thus deliver A1 quality with less outlay and avoid complaints," concludes Koppey.

#### **FAULTLESS**

This is how the waste ejection system of the Speedmaster XL 106 works:

**Two high-resolution color cameras** in the coating unit spot even the tiniest print errors.

Each sheet is compared with the **reference sheet.** 

The system automatically ejects **defective sheets.** 

www.heidelberg.com/XL106



### HEIDELBERG UP TO DATE

#### **DIGITAL IS BETTER**

Technical documentation. Software manufacturer Docufy has been part of the Heidelberg family since May 1. Docufy solutions optimize the processes for producing technical documentation and make it available digitally to all business areas along the value-added chain. Following integration into the complete portfolio of Heidelberg Digital Platforms, industrial customers can look forward to end-to-end process support in product lifecycle management.

#### **SEARCH IS ON FOR** A WORLD CHAMPION

Supporting the next generation. In October, the world's best printers will be competing against each other in Abu Dhabi. In the WorldSkills 2017 competition, participants from 77 countries will be demonstrating their skills in

more than 40 occupations, including print engi-

neering. At the end of last year, Florian Kraus from AZ Druck und Datentechnik in Kempten, Germany, qualified to take part. At the German championships at the Heidelberg Print Media Center, Kraus had to complete a special print job on a five-color Speedmaster SX 52 press with coating unit within two hours and achieved the best result. The panel of judges assessed color mixing, the quality of the end result and the time taken. To enable the WorldSkills participants to demonstrate their skills using the latest technology, Heidelberg is providing a number of Speedmaster SX 52 presses in the offset category and a Versafire in the digital category in Abu Dhabi.

Printing engineer Florian Kraus is representing Germany at WorldSkills 2017.



### AWARD-WINNING

Multiple honors for Heidelberg. The Primefire 106 digital printing system and Prinect Press Center XL 2 digital press control station have been honored with the iF Design Award 2017. International Forum Design from Hanover presents the award for particularly outstanding design innovations. The Prinect Press Center XL 2 with Wallscreen XL and Intellistart 2 and the Gallus Labelfire 340 digital label printing system also won the InterTech Technology Award 2017. This award is

presented by the largest industry association in the graphic arts industry, Printing Industries of America. These are the 37th and 38th awards for outstanding and innovative products that Heidelberg has been honored with. No other manufacturer in the industry has received more.

www.heidelberg.com/primefire www.heidelberg.com/labelfire



#### PERFECT COMBINATION

Postpress. The partnership between Heidelberg and MK Masterworks is just two years old but is already proving to be extremely successful. Last year, Heidelberg reported its highest sales of die cutters to date. As well as the two tried-and-tested Promatrix 160 CS die cutters for industrial use and the Easymatrix 106 CS for commercial printing, several new models will soon be extending the product range. The first of these is the Promatrix 106 CSB die cutter with inline stripping station, an ideal addition to the Speedmaster model series in the  $27.56 \times 39.37$  inch (70 × 100 cm) format all the way to the Speedmaster XL 106. A range of hot foil embossing machines and folding carton gluing machines from MK are also available. The latest model, the Diana Easy 85/115, was designed by the MK team in Germany and is being produced in Nove Mesto, Slovakia. Its very attractive price makes the Diana Easy particularly appealing to print shops looking to replace older equipment.

www.heidelberg.com/postpress

# A GROWING FORCE IN COATINGS

Consumables. Heidelberg has taken over Fujifilm's coatings and printing chemicals operations for the EMEA region. This transaction is a further logical step in becoming the leading supplier of consumables in the printing industry following the acquisition of UK coating manufacturer Hi-Tech Coatings in 2008 and the buyout of BluePrint in 2014. With the Fujifilm takeover, Heidelberg is roughly trebling its previous sales of printing chemicals and achieving a market share of around 10 percent in Europe. Heidelberg is one of the world's top five suppliers in the coatings sector. ■

www.heidelberg.com/consumables

### AT THE LIMIT

"Every customer is made to feel at home here."

MONTSERRAT VILANOVA
PRESIDENT OF CIDEYEG S.A., SPAIN

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Perfect packaging printing – zero waste zero waste thanks to technology from Heidelberg

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Boosting productivity with facts – interview with Anthony Thirlby

#### Page 25

Upgrade rather than scrap – a press makeover









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AT THE LIMIT

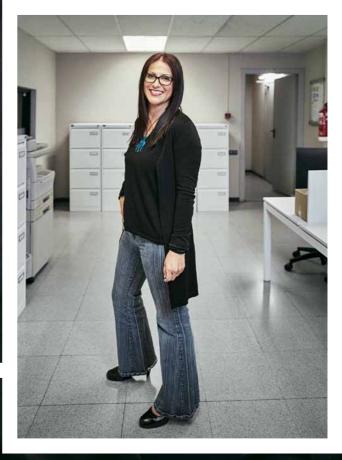


Cideyeg's 120-plus employees ensure customer satisfaction – and a family atmosphere.



JOSÉ LÓPEZ MANAGING DIRECTOR CIDEYEG





Personal contact and customized consulting – the two ingredients in Cideyeg's recipe for success.

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# LABORATORIO DE COLOR

• Many employees also have family members employed at the company, and the bosses attach great importance to the views and opinions of the workforce.

## THE FAMILY GROWS

Important decisions are nonetheless still often made at the family's dining table. Even though founder Salavador Vilanova is now more than 85 years old, when it comes to his company, he is still actively involved in decision-making. For instance, four years ago saw lengthy discussions on whether they should appoint a new managing director in the form of José López to help shape the company's future. The family had already called on help from external managers on several occasions and was disappointed in each case. "Specialist know-how is one thing, and José, too, brought with him extensive experience. But to my mind, collaboration needs to work on a human level," says Montserrat.

This approach is also applied to dealings with customers, with personal support and appreciation part of Cideyeg's recipe for success. "Every customer is made to feel at home

"IT WASN'T TILL
OUR MANY CHATS
AND STORIES
THAT I REALIZED
WHAT THE
COMPANY MEANS
FOR MY GRANDFATHER AND
FOR US, TOO."

JOSEP FIGUERAS MARKETING CIDEYEG here," says Montserrat. José López has also been pursuing exactly this approach in the printing industry for 40 years, so he has long been part of the family – professionally at any rate. "We had numerous discussions, and in the end I asked Montserrat directly: 'Do you want your company to go forward?'" he says, adding with a laugh: "Then she said 'yes'."

He thus took charge of the technical side at Cideyeg and restructured the packaging operations. "As a family business, we don't have the same opportunities as multinational companies to cross-subsidize prices and absorb investment costs," says José. "That's why we had to take a different approach to diversifying." Cideyeg made targeted investments in presses and postpress machines, including a seven-color Speedmaster XL 106, and thus opened up new opportunities for its customers in unusual and high-quality packaging that isn't so easy to find on the market.

## PERSONALITY COUNTS

The focus moved toward packaging for luxury products such as spirits and perfumes, augmented by packaging for the mass market, including the food industry. And the plan worked – although the company never performed badly, sales experienced double-digit growth thanks to the strategic shift. Cideyeg became one of the five largest suppliers of packaging printing in Spain.

"Yet as well as the technical possibilities, personal contact still plays an essential role," say José and Montserrat. "I'm continuing what my father started, and my son will also keep up this tradition." Just like his mother, 25-year-old Josep Figueras – who everyone simply calls Pepo – was raised in the industry, so to speak. "I practically grew up here. Some employees have known me since I was little," he says.

Yet it was never a foregone conclusion that he would manage the company some day. "My two older sisters have nothing to do with the printing industry. They're more likely to get annoyed if get-togethers are once again dominated by talking shop," he says with



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A a smile. He went to boarding school, where his grandfather visited him every week, familiarizing him with the business in their conversations. "It was only then that I understood that my grandfather sometimes goes to the office late in the evening because he then also sees employees from the night shift and can talk to them personally," says Pepo. "It wasn't till our many chats and stories that I realized what the company means for him and for us, too."

While his friends went to the beach during vacations, Pepo swept the pressroom to earn some pocket money. "I really did do a lot of sweeping," he says, grinning. "But I also did a lot of looking around and thus learned

how everything works." Following his marketing and communications studies, he joined the Cideyeg sales team. And now each Monday he feels like a child again when he goes into the office and is greeted by the unmistakable smell of ink. He cannot imagine working anywhere else. The Cideyeg story is far from over.

**Cideyeg S. A.**Avinguda del Vallès, 1
08228 Terrassa, Barcelona

www.cideyeg.es



#### INDUSTRIAL EVOLUTION

While several million tourists travel to the Catalan capital Barcelona each year, relatively few find themselves in Terrassa, less than 20 miles northwest of Spain's second largest city. Yet it has a population of just under 250,000 and is hard to miss, despite not being blessed with such an abundance of sights as its big neighbor. However, its more recent history is certainly worth telling. Together with the neighboring city of Sabadell, Terrassa grew to become an international textile metropolis at the start of the Industrial Revolution in the 19th century. The likelihood of a ladies' stocking coming from the Catalan region remained high right up till the 1970s. But then the textile industry collapsed, with consumers preferring cheap products from Asia. Within an extremely short time, the once flourishing sector was in tatters, and most companies vanished from the market or moved their production operations to the Far East. What remain are the industrial ruins of once impressive art nouveau buildings that are now used as museums, exhibition halls and offices – and a number of chimneys that reach into the sky as monuments to the history of various parts of the city.



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AT THE LIMIT



hree seconds is all it takes for a supermarket customer to decide what to buy, so international branded companies that invest a great deal of money in advertising and product presentation are completely unforgiving. If they spot the tiniest flaw on a folding carton or label, they return the pallets to the print shop.

To prevent this from happening, production must be faultless. With increasingly complex jobs needing to be completed ever faster, this is a real challenge. Kilian Renschler, Head of Packaging Product Management at Heidelberg, has the solution: "The higher the degree of automation and the more integrated the inspection measures, the closer the print shop gets to the target of zero errors." Prinect provides the necessary digital tools



# A CLEAN SHEET

**No customer excuses errors –** and certainly not in the demanding world of packaging printing. But how do you keep quality high without also increasing costs? The answer lies in a combination of fixed standards and variable parameters.

for this. Companies can use this workflow and assistance systems such as Intellistart to link their presses and color measuring/inspection systems into intelligent control loops and share data between all production steps. The objective is an intelligently networked production environment that automatically checks target values for each process step.



### ELIMINATING SOURCES OF ERRORS

Prinect enables workflow-managed production in conjunction with automated and standardized processes.

This prevents an inconsistent approach and incorrect entries – the most common sources of errors in the printing process.

Pharmaceutical and consumer goods giants keep a very close eye on brand presentation to make sure it is exactly the same whether in Miami, Moscow or Mumbai. For suppliers, that means ensuring an identical print image across a number of sites and production processes. This can only be achieved with a standardized database. When an order is received, the job data is recorded in Prinect. This provides the one and only basis for all subsequent processes from prepress to finished product, such as generating the presetting data for press and postpress in an automated process. A precise description of the house and brand colors is also available in a central color database.

The Primefire 106 accesses this data to ensure production meets customers' exact requirements and rule out possible defects in the substrate before the ink is ap-

plied. Sensors scan each sheet for mechanical defects. After printing, four high-resolution cameras immediately behind the jetting unit have the task of inspecting a quality control strip. If they detect a defective sheet, this is ejected in the delivery and – this is the crucial feature – replaced automatically. "Perfect Stack" technology thus forms perfect piles of OK sheets.

Prinect enables all processes to be automated – from product development (creating the structural design) and prepress (processing individual repeats) to sheet assembly. The control units either rectify errors automatically or notify users, who can then intervene manually. This eliminates all the mistakes that occur during hectic day-to-day operations. The same applies to presetting data for press and postpress – it is gen-

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## IDENTICAL PRINT IMAGE ANY TIME, ANY PLACE

Prinect provides a central data platform for job and color data and also the job settings for initial production – for identical results whatever the location or printing method.

erated and passed on automatically. Push to Stop thus becomes the norm for users. Operators navigate their way through the production process and the end result is autonomous production.

When performing offset production on Speedmaster presses, color measuring and control systems ensure precise, even coloring throughout the run. If Prinect Image Control 3 is used, opera-

tors can even check the values on the monitor of the Prinect Press Center XL 2. This ensures that each and every repeat meets requirements, especially in the case of narrow tolerances.

As soon as production of OK sheets is up and running, Prinect Inspection Control 2 also takes over quality assurance. The inline inspection system detects the tiniest flaw at maximum printing speed. Two high-resolution color cameras check each sheet for material/pulling errors, hickeys, ink splashes and scumming. All systems generate reports documenting quality.

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## DETECTING AND CORRECTING ERRORS IN REAL TIME

Prinect links equipment and quality measuring systems into intelligent control loops. The components involved monitor the production parameters, detect quality deviations in real time and immediately trigger

To ensure production is both free of errors and highly cost-effective, the press operator defines the tolerances for reporting errors during setup. Products for less exacting customers, for example, can be assigned higher tolerance values than packaging for high-end customers. It is also possible to define what to do in the event of imperfect sheets. Should they be removed immediately or marked by inserting an identifying strip? Or should only the defective repeat be disposed of – in the case of an expensive material, for example - and safely removed by diana eye prior to

postpress? This offline inspection system has an incredibly sharp eye that even reliably spots defects on coated surfaces, films and holograms.

### INTELLIGENT WASTE MANAGEMENT

The inspection quality for the pile of OK sheets and follow-up actions if defects are detected can be defined on the Prinect Press Center XL 2. The focus for each job is on economic considerations.

The result is always the same – packaging that looks immaculate and meets all the legal requirements. "Standardized zero-error production strengthens print shops' market position as reliable partners of brand owners," stresses Renschler.

www.heidelberg.com/ZDP

# Referred to as "The Master of Speed" by British Print Business, **Anthony Thirlby** is in charge of the Prinect sector at Heidelberg.

# FACTS AND FIGURES ARE KEY TO SUCCESS

**To ensure a press operates at full capacity,** industrial processes are needed – along with precise data analysis. Virtually no one knows this better than Anthony Thirlby, Head of Prinect at Heidelberg. In this interview, the process automation expert reveals how facts and figures increase efficiency and what role software plays in this process.



r. Thirlby, first things first – why should a print shop use Prinect?

Quite simply because companies can double their output or halve their costs. It allows full end-to-end process control and transparency. This means your business can leverage its full potential around productivity and profitability through your Heidelberg output devices from CTP, Press and Post Press, ensuring lowest operating cost at all times.

Hardly anyone else in the industry knows about maximum machine performance better than you. What's your advice for print shops looking to improve?

The key to greater performance lies in the upstream processes. The crucial factor is how fast a job reaches the machine. At ESP, where I was Managing Director, we systematically collated and evaluated all the available production and business data to establish lean, automated workflows. That's why I know the journey that many customers face in their transition to a

smart print shop. What's exciting is that, thanks to Prinect software, machines and processes have now become so intelligent that the upstream process can be fully automated all the way into postpress.

Can you explain that?

Prinect acts as a central business intelligence platform. By gathering all the information along the value-added chain, Prinect reveals all the true factors that influence profitability and productivity. It shows me where I have production stoppages and why, for example, a job change takes 20 minutes. Prinect provides management with tools in the form of business intelligence functionality to analyze KPIs and therefore supports fact-based business decisions in relation to investments, pricing and product portfolio, for instance. This makes it easier for companies to derive benefit from their data.

So Prinect covers two levels – operating workflows and commercial costing?

Yes, both levels are closely related to each other. The more efficient production is, the lower the costs. As a result, I can either win more orders by offering my products at a competitive price or keep my margins stable by reducing operating costs and

50%

The reduction in costs print shops can achieve with the help of an end-to-end workflow based on Prinect.

"By gathering all the information along the value-added chain, Prinect reveals all the true factors that influence profitability and productivity."

ANTHONY THIRLBY
HEAD OF PRINECT
HEIDELBERGER DRUCKMASCHINEN AG

increasing throughput. Added to this is the fact that by networking workflows with each other, Prinect creates a high-performance and consistent production flow, which therefore reduces management's workload. Instead of spending a great deal of time channeling orders through the sales and production process as cost-effectively as possible, it can focus on strategic tasks.

In what practical ways does Prinect help print shops perform better?

The business intelligence platform minimizes the process variables and makes many of the manual interventions in the production process obsolete. For example, many companies change the sheet format on the same press up to six times a day. This can cause approximately two hours of downtime per day and increased make-ready time in postpress, due to change of imposition, grip etc. Prinect enables an all-round view of all processes, from receipt of enquiry to shipped goods from postpress. Process parameters such as sheet size and color configuration can thus be optimized for all planned products to ensure fewer modifications when changing over. Standardized settings allow the business to define beforehand how a job is processed, without human intervention. But Prinect doesn't just control the production chain - it also calculates the costs, operating returns and,

where there are several machines, decides which is the most cost-efficient for producing the job.

Many print shops still base these decisions on their gut instinct – or on their machine's investment volume.

That's right. But machines are increasingly losing their significance in terms of profitability and business success. The numbers involved are more important. Every purchaser of a Speedmaster XL 106 initially has the same technical startup conditions. The press's profitability is then determined by the user's know-how – for instance, how I'm able to streamline production processes and increase throughput, or what products and prices will win orders and from which customers. Prinect gives me this visualization into my business and overview and transparency into the market.

So Prinect helps double output. How does the software help me at a strategic level?

It boosts your sales. A lot of companies ask themselves why on average only one in every five quotes results in an actual job. Instead of a doubtful gut feeling, Prinect provides answers based on facts. It shows which product requirements - for example concerning delivery times and quality standards - various customers have, and what price they are prepared to pay. It also shows which product and market segments a company's own strengths lie in, in order to allow an appropriate business focus. Finally, it also helps identify opportunities for growth from current trends at an early stage so that companies can actively develop new strategies or business models and invest in relevant equipment.

www.heidelberg/prinect

#### MASTER OF SPEED



Anthony Thirlby has been in charge of the Prinect sector at Heidelberg since May 2016. Prior to that, he was among other things Managing Director at ESP Colour in Swindon near London, where he made a name for himself internationally as an expert in automation and process optimization. In nine years at ESP, he drove forward the company's digitization process, doubling unit sales. It is said that no one else understands how to optimize business processes in the printing industry quite like he does.

ife would be a lot easier if you could see into the future. Determining future customer needs would then be no problem - nor would arriving at the press equipment required. Unfortunately, the reality looks quite different. If requirements change or cost pressures increase, print shops often have only limited options to adapt.

Heidelberg presses, on the other hand, support flexible configuration - and not just when ordering, but also years later in some cases. "Demand for automation is currently increasing, particularly on the Asian market," says Dennis Rossmannek, product manager with responsibility for retrofitting at Heidelberg. This is due to rising personnel costs, stricter environmental protection standards and growing quality requirements from customers. "Features such as blanket washup systems and color measuring systems have so far been rare in this area, but demand is increasing."

#### Virtually anything is possible

This is where Rossmannek and his team come in. Working closely with the customer, they determine the precise needs and explore the options for upgrading the relevant presses. "In principle we can upgrade virtually all functions that are also available in a new press," says Rossmannek. Whether an upgrade is worth it depends heavily on the individual circumstances. However, Rossmannek argues that an upgrade almost always makes sense for washup systems in particular. "Customers need to carry out washing relatively often during the day. Doing this manually is very timeconsuming. Automating the process makes it around ten times faster, which means the upgrade often pays for itself after just half a year or even less." The Inpress Control color measuring system, which enables significant cuts in the time for measuring and adjusting the ink, is also a popular upgrade.

Upgrading more high-tech equipment such as a UV dryer, on the other hand, is only worth it in a small number of cases. Yet an upgrade may be an option, for instance if the

# **PIMP** MY **PRESS**

#### When you buy a new car,

you need to agree all extras before making the purchase. Heidelberg presses are much more flexible in this regard even years later, you keep on being



investment volume needs to be kept low when purchasing a new press. Once an order for an upgrade has been placed, it is processed very quickly. Upgrading generally takes around four to six weeks from technical clarification to the first print run.

"Tuning" is also worthwhile if a print shop's business model changes or new customers need to be won. "Our Top Speed Package, for example, enhances the maximum print speed," explains Rossmannek. Older models can thus also be made to deliver even better performance. The major benefit for customers upgrading lies in the ability to plan investments. The various packages have fixed prices, which makes it easy to calculate return on investment in advance. However, the service extends well beyond integrating hardware, particularly for more complex additional functions: "Consulting is then very intensive. Solutions generally evolve during the process



# IN THE EYE OF THE DIGITAL STORM

#### Far from being just empty words

to millennials, responsibility, sustainability and social commitment are key criteria when it comes to trusting a brand. Major suppliers have long been aware of this.



lowly but surely, a new target group of consumers is emerging who will have a huge impact on the economy in the years ahead. Born between 1980 and 2000, the millennials of Generation Y are now taking up decision-making positions. This is a normal development in principle, but the young generation has different requirements. Sustainability and social responsibility are fundamental decision-making criteria for millennials when it comes to selecting a supplier. According to a survey by the Unilever Group, a third of customers worldwide consider these values to be particularly important. This represents a market potential of around 1.1 trillion U.S. dollars (around 960 billion euros).

Large companies such as Ikea, Unilever, Patagonia and many others have long recognized the potential of investing in sustainable projects – and also leverage potential savings in their own production. The printing industry is sitting up and taking notice, too. According to an analysis by Heidelberg, digital print shops are extremely interested in sustainability. The analysis revealed that more than half of all Versafire customers in Germany alone have a relevant certificate or are looking to acquire a quality seal. On a global level, 60 to 80 percent of the companies surveyed (depending on segment) indicated a high level of interest in sustainability.

Ensuring environmental protection and sustainability is no simple task, though, especially in conjunction with high flexibility and personalization. This is something of a predicament, because the market is demanding ever shorter lead times and customized solutions. Digital presses and postpress equipment from Heidelberg are the ideal response and enable press shops to provide their customers with the best possible service on a long-term basis – for all generations.



#### FLEXIBILITY AT THE TOUCH OF A BUTTON

With Prinect workflow, Heidelberg makes it possible to combine traditional print business with on-demand printing. All processes can be managed and controlled centrally. Reducing the number of access points and thus potential sources of error boosts efficiency. And at the end of the day, this means less waste, enhanced resource efficiency and higher returns.



#### THE PACKAGING WORLD TAKES ACTION

The packaging market is tackling the new requirements in the same way, giving top priority to sustainability and responsibility throughout the supply chain. The Primefire 106 digital press is one machine that caters fully to these aspects. The seven-color press delivers top quality from the very first sheet and its consumables all comply with strict Swiss Ordinance requirements. This gives print shops the best possible basis for offering flexible packaging printing with optimum results.





#### TO THE POINT

Commercial printing customers are increasingly requesting high-quality brochures in short runs. The Versafire printing system's inline finishing helps print shops supply the precise quantities required while also ensuring optimum quality – with no ifs or buts. What's more, the consumables are easy to reuse – a high proportion of the toner cartridge material is recyclable.





#### **PERSONALITY COUNTS**

Character is all-important – and that also applies to print products. It's a proven fact that consumers are more reluctant to part with things to which they have a personal connection. The on-demand options of the Omnifire systems even enable top-quality printing and customization of free-form 3D objects. Add a sustainable printing process and an end product that impresses long-term and you have a perfect recipe for success.



#### NOT ONLY THE CONTENTS COUNT

Products are important and so is correct packaging, but the label also has to be right. It should be customized and, ideally, produced quickly and flexibly. The Labelfire 340 from Gallus is a digital solution to the needs of label printing customers. From file to finished label, eight-color UV inkjet printing and inline finishing mean virtually no intermediate steps are required. This results in less waste, more efficient processes and faster delivery.

More info at www.heidelberg.com/digital-eco

## IN PERFECTION

"Ultimately, the crisis had a cleansing effect. We focused on our core skills and developed a strategy that put our quality center stage."

ALEXANDER EVSEEV FOUNDER AND DIRECTOR OF CITYPRINT, RUSSIA

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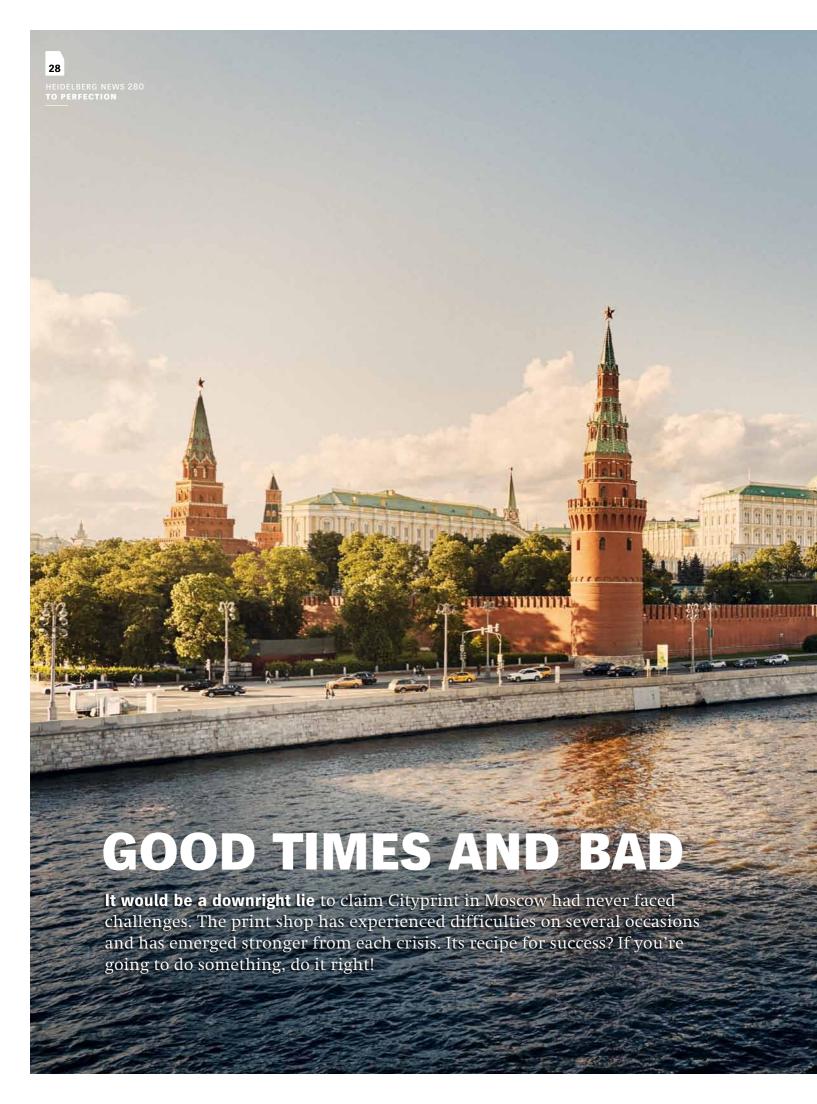
Better safe than sorry – plastic card printing with the Speedmaster XL 75

#### Page 38

Digital transformation – how Heidelberg is preparing for the future

#### Page 44

A 111-year success story – Polar-Mohr







f you had to describe Alexander Evseev, founder and director of Cityprint in Moscow, in just one word, it would probably be flexible. Because flexibility has always been a defining characteristic of his life and this remains the case. "Cityprint is celebrating its 25th anniversary this year – quite a long time for a Russian company," says Evseev with a laugh. "You don't survive that long unless you're adaptable," he adds. And adaptable is an understatement for the way Cityprint has developed. When Evseev set up the company with a partner in 1992, it was not a print shop. "Back then, we were a traditional communication agency and simply placed print jobs with suppliers," he explains.

The liberalization of the economy and the introduction of market forces in Russia created a big demand for advertising products at the time. The problem was that the main print product suppliers were a handful of large former Soviet printers, who were neither prepared for the transformation nor able to keep up. Cityprint and other service providers therefore restricted themselves to processing customer orders with these printers on a commission basis. It was a highly lucrative business but was not without its risks. "There was absolutely no reliability in terms of deadline compliance or the quality of print products," explains Evseev. So after two years of acting simply as a middleman, Cityprint decided to move into the printing business itself to be able to ensure continuity for its customers.

#### Quality doesn't sell itself

The first single-color offset press acquired in 1994 produced forms, business cards and envelopes. This was followed just two years later by the first Heidelberg GTO 52-1 at Cityprint. "It was only then that we gradually went from being amateurs to professionals," admits Evseev. The company grew very quickly over the next ten years. The workforce increased from 25 to just under 90 and several new Speedmaster presses arrived in the pressroom,











Cityprint's goal is an ambitious one – to be Russia's top supplier of multi-page print products. The single-minded pursuit of this goal, efficient pressroom organization and a strong team currently comprising 88 staff are helping to achieve this. Annual sales are expected to exceed 1 billion rubles (around 17 million U.S. dollars) in four years' time.





"MANY CUSTOMERS TODAY HAVE ONLY A TENUOUS LINK WITH THE PRINTING INDUSTRY. THEREFORE WE'RE MORE LIKE CONSULTANTS THAN PURE SERVICE PROVIDERS."

ALEXANDER EVSEEV
DIRECTOR AND FOUNDER OF
CITYPRINT IN MOSCOW

Cityprint's strategic orientation also extends to print shops in Europe. Its innovative practices help it meet optimization targets and ensure high quality.











• printing everything from brochures and magazines to catalogs and business stationery. "There was still no clear strategy, though," reveals Evseev.

"Instead, we adopted the approach of taking things as they come," he adds. Back then, Cityprint's simple sales pitch was offering good quality at a good price. "But there was no one actively offering our customers advice or explaining the benefits of enhanced quality to them," says Evseev. The company soon paid the price when sales collapsed as a result of the 2008 economic crisis. Cityprint only just avoided bankruptcy, with internal management wrangles exacerbating the situation.

#### Rising like a phoenix from the ashes

"Ultimately, though, this crisis had a cleansing effect. We focused on our core skills and also developed a strategy that put our quality center stage," continues Evseev. Quite simply, the strategy was to be the best. Among other things, this resulted in the arrival of a Speedmaster XL 106-8-P LE UV, which was the only press of this kind on the Russian market when it was installed two years ago. Sales are expected to rise to 1 billion rubles (around 17 million U. S. dollars) by 2021. Accordingly, Cityprint's motto is now "Hi-Im-Press" (printing to impress).

This is no easy task given that the law in Russia requires state companies and businesses in which the state holds an interest – that is to say the vast majority of large companies – to put purchases out to tender. This results in a fierce price war, which in most cases stands in stark contrast to the goal of high-quality products. "Despite this, we've succeeded in creating a circle of customers who appreciate our products and are prepared to give us all their printing assignments," says Evseev proudly. For example, Cityprint has printed particularly complex series of books with runs of 50, 500 and 5,000 for Kirill I, Patriarch of the Russian Orthodox Church. Recipients have included Russian President Vladimir Putin and former French President François Hollande.

#### Highly centralized

Some 80 percent of orders come from regular customers, with Cityprint generating around half its annual sales of approximately 400 million rubles (just under 7 million U. S. dollars/around 6 million euros) from business with large Russian and foreign companies from a variety of sectors, including Gazprom, Kaspersky Lab, Volvo, Scania and the Hubert Burda Media Group. Most of them come from the same region, though – Moscow. "There's a significant imbalance between central Russia and the rest of the country. Some 85 percent of the print volume that is of relevance to us originates from the capital and the immediate surroundings," reveals Evseev. Consequently, Cityprint focuses its marketing activities for premium magazines, books and catalogs almost exclusively on the country's political and business hub.

When it comes to quality and process strategy, on the other hand, Evseev considers internationality to be extremely important. "ISO 9001 certification is nothing special in Europe, but we're one of the few print shops



> to offer it here in Russia and have done so since 2012," he stresses. What's more, the company has been working according to lean principles for three years now and regular quality inspections ensure high standards.

#### Communication is everything

"We're currently in the process of optimizing a number of production areas, primarily on the presses themselves. With the help of various measures based, among other things, on information from the production management systems, we've succeeded in improving our print sheet output by around 40 percent in the past half-year, compared with the previous year," says Evseev. Above all, he puts this success down to the methods of the Theory of Constraints – which essentially focuses on expedient order planning and management – and to the introduction of the new staff incentive system.

But Cityprint's efficiency is also a result of simply communicating things besides facts and figures. "For most products, there's a pre-production meeting - PPM for short - at which we discuss all aspects of production, draw up precise technical requirements and provide our contacts with suggestions for the best way of tackling a task. That's particularly important because many customers today have only a tenuous link with the printing industry," underlines Evseev. He goes on to explain that this means there is much more work than before involved in explaining things to customers and winning them over. "We're more like consultants than pure service providers," he says, confirming a trend that is currently shaping the day-to-day work of print shops in Russia and beyond. But this kind of flexibility is certainly no more of a challenge than the ones Cityprint has already faced.













Cityprint's motto is "Hi-Im-Press" – printing to impress. Founder Alexander Evseev and his team interpret this as exceeding customers' expectations. It's a case of finding the best possible solution for their requirements and impressing them with the result.

n the Swedish capital, it isn't just beggars and pickpockets who have a problem. Anyone looking for a restroom could get into trouble, too, as cash has become practically redundant here. Instead, credit and check cards shape everyday life - as well as opening the doors of public restrooms. But the plastic all-rounders have also become indispensable elsewhere. For example, we use them to make payments and phone calls, as travel and admission tickets and even to access our favorite club or our bank account. While cash is in decline throughout the world, plastic cards are booming. Nilson Report industry analysts forecast that the number of prepaid, debit and credit cards will rise to 22 billion by 2020. Everyone on Earth across all age groups will thus have three payment cards on average.

Despite the enormous demand, the market is highly competitive. "When producing such cards, every cent counts," explains Joachim Hüber, security printing product manager at Heidelberg. Although the risk of misuse rises in line with the value of the plastic card, security aspects play a lesser role. The only crucial factor is the price, says Hüber. To successfully compete in this market,

# SMART STREAMLINED SOLUTIONS

# The Speedmaster XL 75 and XL 75 Anicolor 2

are revolutionizing plastic card printing.
New and unusual applications are increasing cost-efficiency and protection against counterfeiting. Companies outside of the card sector are also benefiting from attractive market opportunities.



companies must be able to produce short runs of around 5,000 sheets cost-effectively – and on demand, of course.

#### Anicolor saves time and cuts waste

The Speedmaster Anicolor XL 75 UV is the perfect solution, a press that has what it takes to deliver a real performance boost – not least because it halves the time to create an OK sheet and cuts waste by up to 90 percent. Most spot colors can be produced using seven-color printing in combination with Prinect Multicolor, thus ensuring even faster job changes. This is necessary for credit card manufacturers' logos, for example, which are often printed in spot colors. With the multicolor process, they can be depicted without any additional color changes.

The situation is completely different when manufacturing documents such as passports and driver's licenses. Although such documents are often also made of plastic, protection against counterfeiting is paramount here. And with good reason, as the general political climate is making documents with the "right" proof of origin highly sought-after. In 2016, around 6,000 passengers with forged papers were detected by Greek airline Aegean Airlines, an average of 16 a day.

"The demand for counterfeit-proof documents and products printed using high-security technology is growing throughout the world," says Hüber. On this strictly controlled and lucrative market, most suppliers use the Speedmaster XL 75 for printing. "This is due to the precision and versatility shown by the press in also meeting difficult technical challenges," adds Hüber. These ID documents usually have multiple layers. "As soon as someone attempts to break up an ID document – for example, to replace the photograph – they damage the cross-layer security elements."

#### Invisible inks and unusual effects

The complex production processes and customers' strict specifications call for a press that combines all the necessary features. Hüber uses the example of the Speedmaster XL 75 UV to explain the requirements: "Our bestseller in this sector – the six-color perfecting press – is equipped with printing units for letterset, rainbow printing, waterless offset, flexographic printing and an inkjet system. UV fluorescent inks that are only visible under black light are applied using indirect letterpress printing, for instance." This is particularly reliable, as the printing surface is raised and smudging is thus eliminated. "This is important to then produce a controlled vignette

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#### **SPEEDMASTER XL 75**

Adapts to a wide variety of needs in commercial, label and packaging printing thanks to its comprehensive configuration options. This customized and highly automated solution boosts cost-effectiveness and market success, while its Intellistart 2 assistance system revolutionizes job changes.

#### FLEXOGRAPHIC PRINTING

A letterpress printing process where the ink is applied via a chambered blade and screen roller. This enables application of special coatings with thick pigment layers, such as Iriodin and Metalure (aluminum pigment dispersion).

#### **RAINBOW PRINTING**

The simultaneous application of two or more inks in one inking/printing unit to create multicolor effect vignettes – the rainbow effect. The inks flow into each other as protection against copying in a controlled process throughout the run. Each sheet must be absolutely identical.

#### **WATERLESS UV OFFSET**

Benefits include excellent dot definition, high color intensity, very fine screen rulings and unusual substrates such as moisture-sensitive transparent paper and plastics including PVC, PC, PET and PP. Environmentally friendly thanks to the elimination of isopropanol. Further economic benefits include reduced startup waste and faster inking-up.

#### LETTERSET/LETTERPRESS

Process in which the ink is transferred directly from the block onto the substrate under pressure. In the press, however, the motif is transferred via the blanket, thus making this an indirect letterpress process. This means the motif on the printing plate is right reading. Features include a print image in relief with high edge definition. Option of processing inks (e. g. highly pigmented or UV fluorescent) that are either not supported in conventional offset printing or only to a limited extent.

#### THERMAL INKJET

Suitable for serialization and personalization (e.g. tracking of products), and for quality assurance using an inline inspection system (number-based ejection of defective sheets).

#### **SPEEDMASTER XL 75 ANICOLOR 2**

An offset press for cost-effective on-demand production of short runs. Fast inking using the zoneless short inking unit cuts waste by 90 percent and makeready times by 50 percent. A further benefit is the flexible processing of a whole range of substrates and inks by the Anicolor Booster.

#### ANICOLOR INKING UNIT

The ink volume is controlled zonelessly across the entire sheet and uniformly using prepress data. The benefits include fast changeovers, low waste, easy handling and excellent color consistency throughout the run.

#### **ANICOLOR BOOSTER**

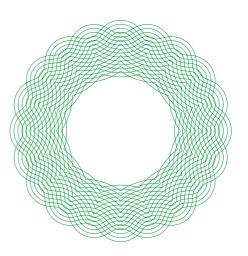
Can be activated at the touch of a button on the Prinect Press Center XL 2 high-performance control station to produce a greater ink film thickness, for example for coated and uncoated paper or for the gold and silver background on plastic cards.

#### PRINECT MULTICOLOR

Technology that can simulate hundreds of spot colors (around 95 percent of the Pantone color space) using standard CMYK colors, plus orange, green or blue. of several colors – some invisible in daylight – in one printing unit, for example in combination with rainbow printing," says Hüber. Letterpress printing also prevents film formation on the plastic substrate, which could lead to problems during subsequent lamination.

Waterless offset printing enhances dot definition for guilloches and microtext, for instance, and is particularly suitable for UV applications on non-absorbent materials that are usually very expensive. Startup waste can also be cut significantly without having to establish an ink/water balance. All-important temperature management inside the press is monitored and controlled using additional equipment.

Tilt effects involving color changes in motifs can be created using flexographic printing. "The Speedmaster XL 75 is the gateway to high-security printing. But its special applications are also useful for individualists," says Hüber. "If you can offer something unusual, you generally create your own niche and do well."



heidelberg.com/XL75



# "WE WANT TO BECOME A LEADING LIGHT ONCE AGAIN"

**Rainer Hundsdörfer has been the new CEO** of Heidelberger Druckmaschinen AG since last November. Since taking up his post, he's been unrelenting in his efforts – driving forward digitization, seeking out new approaches to boosting competitiveness and personally sounding out the workforce. He is driven by his belief in the performance of an idol – and fast cars such as the Porsche GT3 RS.



#### **HOME SWEET HOME**

Mr. Hundsdörfer knows all about embracing change. In his career, the 59-year-old has initiated and supported a great many changes. One example was at mechanical and plant engineering company Trumpf, where he was dispatched to the United States, as sales there were not going so well. "I first had to quickly learn English and learn to understand Americans before finding the appropriate solutions," he says. And his plan was successful. Returning to Germany, his next important mission was to quickly develop a new division in Germany's Black Forest region into a global player. Shortly after taking up his role as Chairman of the Industry Division at automotive supplier Schäffler, he was faced with the mammoth task of integrating Continental. And as Chairman of the Board of Directors at ebm-papst, he sought to bring about changes to the corporate strategy, which involved overcoming resistance from some in the Group. How come Hundsdörfer has retained close ties with his home state of Baden-Württemberg in Germany throughout almost all this time? "It's pure coincidence," he says, smiling.

r. Hundsdörfer, you enjoy motorcycling, and in your free time you occasionally go to the Nürburgring race track. You recently also became CEO of Heidelberg. Do you like risks?

(Laughing) I've worked in mechanical engineering all my life, so I don't regard the new challenge I've taken on at Heidelberg as a risk. Heidelberg was for many years a leading light in this industry, drawing everyone's attention. So I consider it my personal responsibility to set Heidelberg on a path to growth once again. This is a fantastic opportunity, and I believe I can do it. Not only that, but the printing industry fascinates me – I've been to almost every drupa since starting my career in 1984.

In your previous roles, you gained a reputation for driving forward innovations and new business models. How are you looking to do this at Heidelberg?

The Heidelberg brand still has enormous prestige and our customers value us as a strong partner in offset and digital printing. We want to harness this position and use new business models to play a more active role in our customers' lifecycle business. It's just as important to further enhance the structures at Heidelberg, become more agile and once again achieve operational excellence across the board.

How do you intend to do that?

By being the first German mechanical engineering company to make full use of the opportunities opened up by digital technology – to the benefit of both us and our customers. For example, by creating new services and business models that are mutually beneficial. In short, we don't just make the best presses to meet our customers' requirements – they also provide us with information we can use to optimize their business.

What form does this take exactly?

In essence, it involves us cutting complexity in printing operations. Customers should no longer have to worry about certain

tasks at all. We're therefore expanding our traditional functions and services with a digital component, for example machine-to-machine communication and interfaces to the Internet of Things. This forms the basis for applications that support autonomous printing and predictive maintenance, for instance. In the future, the press will perform even more tasks independently, such as ordering consumables. The advantage for customers is that they can then concentrate fully on their business and their customers.

What added value does digitization offer customers?

We can provide them with even more effective support. Take the example of consumables. Our presses in the field supply a constant flow of information on criteria such as capacity utilization, waste and production speed. By evaluating this data, we can enhance our products and thus make the printing process more reliable and cost-effective for our customers. Our consumables then meet our customers' needs perfectly. In the future, it's entirely conceivable that our customers will no longer be paying for individual items but will instead be invoiced according to the number of printed sheets.

And how do you help your customers win orders?

To generate more business, I need transparency. I need to know the market and my customers to ensure I can offer the right product at the right price. Prinect, which we have expanded into the business intelligence platform, supplies this information. We also help our customers with our products and services to achieve a consistently high quality standard. This is of particular interest for global companies that attach extremely high importance to a consistent brand identity. We're thus



• evaluating options to see how we can give our customers easier access to this business. One possibility would be a platform for defining jobs. Using our data, we can say immediately which suppliers are able to meet these needs.

What about customers who don't have state-ofthe-art technology or are family businesses?

In any industry, I can only play a leading role if I use the latest equipment. Digitization is resulting in a number of innovations in the offset sector in terms of press automation, control and productivity, and that's why family businesses in particular are making investments. They're looking to make the leap from small company to industrial-scale enterprise, as this is the only way they can remain competitive and survive. A typical family business can cut the costs per printed sheet and boost output by replacing its two old presses with one new press. The drawback here is that it is then dependent on one single press. Few people are willing to take this risk. Our customers thus need the security that presses from Heidelberg are not going to fail. Digitization with big data and predictive monitoring plays an important role in this. We know the typical behavioral patterns of the wide range of installed presses and this enables us to offer predictive maintenance and arrange planning before anomalies occur. The technical availability is already 96 percent, and we'll continue to push this upwards till we eliminate unscheduled press downtimes completely.



#### **UP TO SPEED**

It takes Rainer Hundsdörfer just 3.3 seconds to get from 0 to 60 miles an hour with his Porsche 911 GT3 RS. He crowned his passion for the brand two years ago by buying a 500-horse-power model. But his passion for vehicles isn't restricted to four wheels – his garage also houses motorcycles, which the father of four uses for group outings. So when the weather's nice, don't be surprised to see Hundsdörfer in his leather gear on the company premises – on the way to the parking lot.

What impact is the digital business having on sales?

In our core business, we already have a market share of more than 40 percent. To expect an enormous increase in this area would be unrealistic. We're looking to play a pioneering role in digitization with our "Push to Stop" concept and also in industrial digital printing for the packaging market with the Labelfire and Primefire product lines. Our goal here is to double our market share in digital printing from the current level of less than five percent to as high as ten percent. The new business models for press operation also promise growth. We may even go as far as taking over this area completely, with us providing the equipment, and customers being able to get printing operations from us as a service. However, to do this we need to change our own processes, become more agile increase our efficiency to offer more, without becoming more expensive. This also means painful changes in some areas.

Does this mean some kind of systemic change?

Definitely. Although our core business remains mechanical engineering, the lifecycle business is becoming more important. Heidelberg is becoming a digital company. We also have a strong presence in the smart factory area. The software products we've developed for in-house production are also in demand at companies outside the printing industry. One of our further aims is to establish Heidelberg as a software service provider for the entire manufacturing industry.

At the groundbreaking ceremony for the new research center in Wiesloch, you spoke about wanting to develop a German Silicon Valley here. What do you mean by that?

I'd like to create the conditions to promote agile development, production and assembly. To do this, we need a startup mentality. This means we must be willing to question everything and pursue new approaches. This fresh thinking should cover all areas and initiate an upward spiral that inspires and motivates each individual employee. We need to become faster, more flexible and more efficient. Our ambition is to be the best in terms of quality, throughput times and service. If we work together, we'll succeed in once again making Heidelberg a leading light in mechanical engineering. Among other things, this involves me having regular conversations with employees, visiting customers and having intensive discussions with our partners. No one can answer the question "What can we do better?" by themselves - we can only find an answer by working together.

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#### TRACES OF THE PAST

A bag of ephemera bought at a car boot sale formed the basis for a project by London-based Boss Print. From time to time, the print shop produces unusual notebooks in collaboration with Carter Wong Design. Incorporating a whole host of intricate print features, their elaborate designs are intended to demonstrate the wideranging possibilities of print. Designer Philip Carter came up with the idea for the third notebook - Heidelberg Bound - on taking a closer look at his purchase. It was clearly the legacy of a lady from London who had lived in Heidelberg more than 50 years ago. The contents included movie theater, bus and streetcar tickets - and even a shoe repair slip. The only thing Carter discovered about the lady herself, though, was her name. The ephemera provided the inspiration for the Heidelberg Bound design and it was printed on Boss Print's Speedmaster CD 74. Shortly before completing the book, Carter read an obituary of a lady with the same name in the newspaper. On request, it emerged that she was indeed the lady in question. At the launch event, her husband was thus finally able to provide the necessary background details about this trace of the past.

MASTER-PIECE



Collector's item – ephemera from 50 years ago provided the inspiration for the design of Heidelberg Bound.

#### Show us your very own masterpiece!

Do you have a packaging solution, brochure, calendar or some other print sample that you're particularly proud of? A masterpiece, large or small, that you would like to see featured in an upcoming issue of HN? If so, join in and send a copy to us at:

Heidelberger Druckmaschinen AG Sabine Langthaler Gutenbergring 69168 Wiesloch Germany



#### **FULLY COVERED**

**Everyone's talking about digitization,** but what about security? Customers are increasingly reporting cyber attacks involving job data losses or even production stoppages. The excuse that "we aren't interesting enough to be attacked" doesn't count – everyone is a potential victim if they don't follow these simple rules.





#### TEAR DOWN THE FIREWALL IN THE MIND

Small print shops in particular risk lulling themselves into a false sense of security if they think they don't have anything worth taking. Personal data such as bank details and address information is always useful for hackers, and there is no shortage of it at any print shop. Most attacks are also automated and look for the weakest link in the chain. Raising employee awareness is thus the top priority and the first step toward data security.



#### TAKE RESPONSIBILITY

If no one's in charge, any steps taken will come to nothing. So appoint a security officer who documents the devices and software used, the purpose for which they are used and the employees who use them. The officer uses this information to draw up security guidelines and measures for how to eliminate risks. The guidelines also document how to comply with contractual obligations. If management then also demonstrates its commitment to data security, this closes the gaps for hackers.



The Heidelberg white paper on IT security at print shops:

www.heidelberg.com/ IT-Security-whitepaper

#### **DUAL APPROACH**

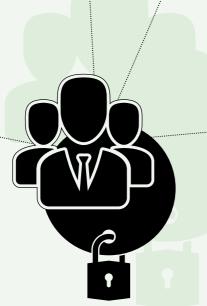
Sensitive data needs to be encrypted. This simple principle applies both to storing and sending information. And if data is lost and there's no backup, you only have yourself to blame. Daily backup copies on external storage media protect against

data loss in the event of the company network being infected with ransomware, for example.



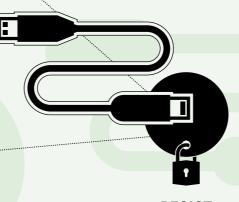
#### **USE THE RIGHT MATERIAL**

Outdated software offers hackers numerous opportunities. This is also true of programs that are not used at all, such as applications installed by the manufacturer. Unnecessary software should therefore be removed, and required programs always kept up-to-date. Use different passwords for each application and device. These should be at least eight characters long, consist of numerals, letters and special characters, and be changed at regular intervals. Names, dates of birth and number sequences such as 123456 must not be used. Up-to-date virus protection should be standard for all devices, including mobile computers that may be used in employees' home offices.



#### **PLAY YOUR PART**

In many cases, if employees act carelessly, for example by opening email attachments without knowing the sender, this sets off an avalanche in which they feed viruses, Trojans or so called ransomware - as seen recently with WannaCry - into the company network. To minimize the risk, they should only be given access rights to the data, networks and software they need for their work. Administrator rights are so named for good reason - they are reserved for administrators. This prevents unrestricted access by malware to the entire system.



#### RESIST **TEMPTATION**

As well as security risks, online services such as Dropbox may also present compliance problems. It is rarely clear which data center or jurisdiction files end up in. What's more, many print shops still use the FTP transfer protocol. Yet simplicity has its price, as FTP sends data unencrypted, and hackers may be able to pick up passwords and use them for attacks. Extended versions such as SFTP and FTPS that offer more security when sending data should therefore be used at the very least.

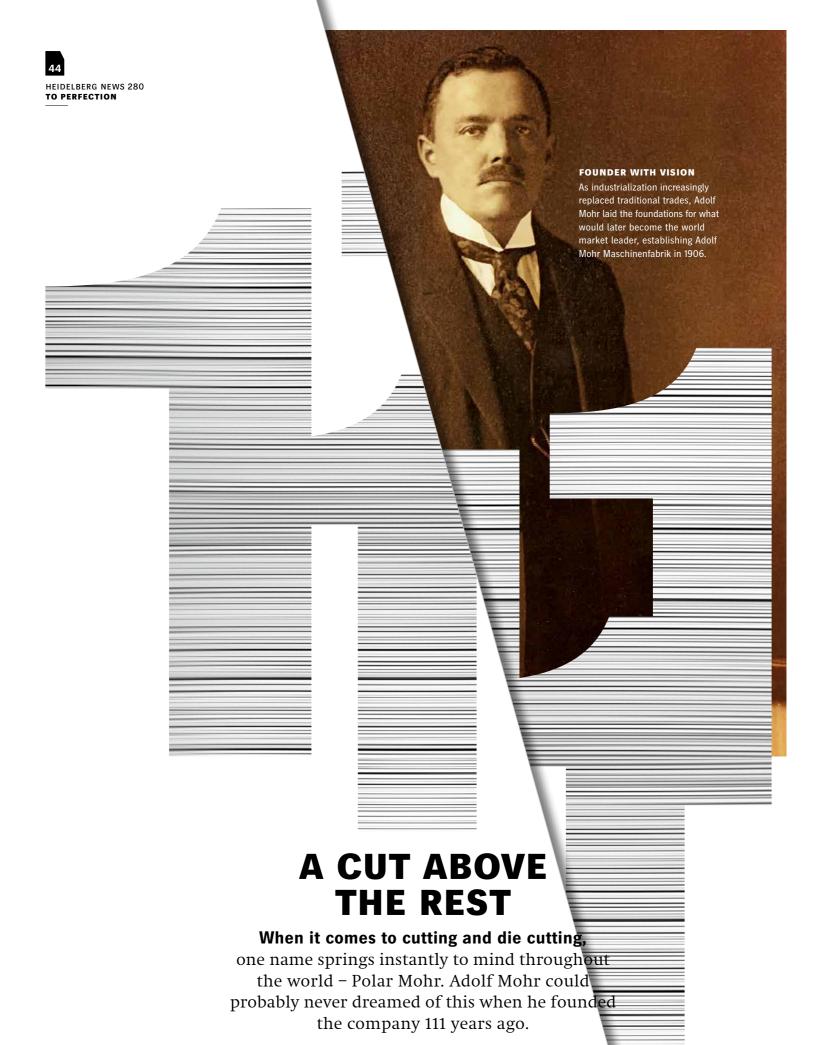


#### **FACTS** AND **FIGURES**

No fewer than 53 percent of German companies have fallen victim to sabotage, espionage or data theft. Source: Survey by the German Federal Intelligence Agency

In May, WannaCry ransomware crippled hundreds of thousands of computer systems in more than 150 countries in just a few hours. The hackers used a security loophole in Microsoft's Windows operating system. Only equipment without the latest updates were hit. Source: Süddeutsche Zeitung newspaper

Ransomware netted criminals more than 1 billion U.S. dollars (848 million euros) last year and yet the software enabling attacks of this kind is available online for as little as 28 dollars. Source: Frankfurter Allgemeine Zeitung newspaper



#### THE FOUNDATIONS ARE LAID

In 1948, at the Frankfurt spring trade show, Polar machines were still only used forwood processing.



#### RADICAL CHANGE

In 1947, Rudolf Mohr, son of the founder, developed the first electric cutter. In the graphics industry, the Polar became a runaway success.

#### WELL PLACED

Under Managing Director Markus Rall, Polar has defended its position as market leader. Based in Hofheim, it is the market's only global manufacturer.



#### Expansion

Demand for print products at that time was high, and this was also apparent in the sales of Polar cutters. The year 1949 saw the first contact between Alfred Mohr Maschinenfabrik and Heidelberger Schnellpressefabrik AG a productive relationship for both sides that continues to this day. Word soon spread among specialists about the quality of the cutters, and when drupa was held in 1954, more than 2,500 Polar high-speed cutters had already been installed in Germany and the rest of the world. Continuous innovations have underpinned Polar's position as market leader. At drupa, it has regularly showcased new developments that time and again have caused a sensation. Polar is also a pioneer in digitization. Since 1986, its Compucut technology has provided programming outside the machine. In 1992, the Polar 2000 systems offered a complete postpress solution that kept data up to date online - a first at that time. Polar also set new standards in 2002 with the first fully automated Pace Cutting System. This was followed in 2006 by expansion onto the Chinese market with the company's own production plant. Like everyone else, Polar was affected by the financial and economic crisis in 2006. A number of challenges had to be overcome. And yet developments such as the takeover of packaging technology manufacturer Dienst in 2011 secured new customer segments for Polar. In 2015, the company was stronger and well placed to assert its role as world market leader. The 111th anniversary this year is the icing on the cake for a success story that continues to this day.

# t

he "field near the paper mill between Christian Quentel and richard Zorn," as it was described in old documentation, was where Adolf Mohr wanted to build his company. It cost exactly 8,448 german marks (around 59 600 U. S. dollars) in 1906. Mohr had no idea that precisely 111 years later, machines that are unique worldwide would be produced on the site, covering an area of around 21,500 square feet (2,000 sq. m). Yet even back then, the company was one step ahead of its competitors. While at the start of the 20th century most factories ran their machines using steam, Mohr was already converting his equipment to electricity.

First and foremost, it was the commitment to innovation that fueled the success of Mohr's machine factory. Various patents were recorded, ranging from a "cutter head for planers" and a "wedge fastener for planer blades" to blade-adjusting devices. In 1929, some 40 safety cutter blocks left the factory each week. The name of the machine? Polar. At that time, of course, the company specialized in wood working and processing. It wasn't till 1947, some years after the death of the founder, that Adolf Mohr Maschinenfabrik moved into the new "graphic arts" industry. The company was now run by the two sons Rudolf and Karl. They focused completely on the new sector and soon launched the first electrically controlled cutter onto the market.

www.polar-mohr.com



#### FOCUS INNOVATION

## STRIKINGLY VARIED

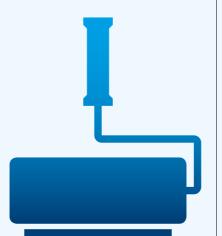
**Customers look for** posters, flyers or tickets that are striking and distinctive. One way of making an impact is by using spot colors such as white/neon yellow or varnish as an additional ink. For 5-color Versafire CV digital presses, this simply requires the toner and an additional developer unit.



he Versafire CV doesn't just support an extremely wide range of print substrates. It also offers very special colors - for example, the neon-yellow toner enables the production of brightly colored party invitations, luminous posters and stunning advertising brochures. Fluorescent particles in the toner are stimulated by UV radiation and light up the neon yellow. The spot color also protects against copying if required, as the neon-yellow effect is impossible to reproduce in this way. The toner is thus ideal for adding a unique identifying or security feature to tickets, vouchers and other valuable documents. In the events field, the spot color can also emphasize features under UV light on bracelets, for example (see enclosed bookmark).

#### Eye-catching opaque white

The white toner impresses in particular thanks to its outstanding opacity on a large number of materials. This produces striking effects on colored paper or transparent substrates even in short or very short runs, for instance for labels and silver materials. Personalization is also no problem at all with spot colors.



#### BLAZE OF COLOR

The neon ink contains optical brightening agents that transform less bright or invisible short-wave spectral components of daylight (blue, violet and ultraviolet) into brighter, longer-wave visible light (yellow) through fluorescence, thus producing glowing colors.

Varnish toner is available for the Versafire as well, thus making it possible to produce full-area and spot coatings quickly and cost-effectively and create visually striking matt/gloss contrasts. The coating can also be used in combination with a guilloche as protection against copying (see enclosed bookmark).

#### Countless possibilities

Spot colors can be created or modified particularly easily in combination with the Prinect Digital Frontend and the tools in the PDF Toolbox. The separations are created, mixed or assigned to the required elements in the print original via the WYSIWYG interface ("What you see is what you get").

Almost any material can be printed with the Versafire – heat-resistant plastics, envelopes, extra-large posters up to around 28 inches (700 mm) long or textured materials. As an addition to offset, these digital printing systems offer endless possibilities for customizing print products.

What's more, the three spot colors can be easily added to all Versafire CV and Linoprint CV digital presses with five inking units already installed.

#### Mark Ihlenfeldt

Product Manager Versafire and Head of Digital Demo Center Heidelberger Druckmaschinen AG

heidelberg.com/versafire

# A QUESTION FOR HEIDELBERG

# HOW IS OPAQUE WHITE USED CORRECTLY...

... and what needs to be remembered?



Opaque white is used primarily to simulate paper white in packaging and label printing. Printed motifs often appear too flat or devoid of contrast without opaque white. This is particularly true on non-opaque substrates that are metallized, film-laminated, transparent or colored or when using kraft board.

Opaque white can be used on offset presses either as ink in a printing unit or as a coating in a coating unit. Various types of opaque white are available, for example as a UV-, mineral oil- or vegetable oil-based ink, or as a UV- or water-based coating. In all variations, titanium dioxide is usually the white-producing pigment.

How opaque white is used on the print product depends on the required level of coverage. We normally use opaque white in one or even two of the front printing units when printing silver foil-laminated cardboard packaging, for instance. For transparent foils, however, opaque white is often applied last in a mirror-reversed printing process.

With the Duopress model from Heidelberg, opaque white is applied inline as a spot coating using a flexographic plate in the maximum possible quantity and with maximum opacity in a coating unit before the printing units. We generally use UV-based opaque white for this. To achieve optimum curing of opaque white even at high production speeds, we recommend using iron-doped UV lamps in interdeck dryers or end-of-press drying, due to the superior penetration achieved by UV radiation.

#### **Jochen Pecht**

Team Leader for Press Special Applications at the Print Media Center Packaging of Heidelberger Druckmaschinen AG

Do you, too, have a question you'd like to ask? Is there anything relating to complicated applications, optimum use of equipment and consumables or other matters that is on your mind? If so, write to us at heidelberg.news@heidelberg.com and put your questions directly to the Heidelberg Global Expert Network.

#### **PANORAMA**

Upcycling is a form of recycling that creates new things from used or discarded items such as wooden pallets, broken jewelry, old jam jars or tattered clothing. With upcycling, the new use revalorizes the end product.

EVERYTHING IMPROVES IN THE NEXT LIFE PAGE 48



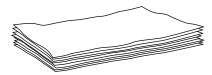
## EVERYTHING IMPROVES IN THE NEXT LIFE

**Upcycling materials that have been discarded** or are surplus to requirements, rather than simply recycling them, adds value to everyday items such as furniture, fashion, decorative items and sometimes even entire homes.



pcycling cast-offs often leads to curious scenarios. Examples include transforming a tarpaulin that up till recently was touring Europe on a truck into a shoulder bag for fashion-conscious students, a trendy downtown café using an old discarded CRT television as an aquarium and a resourceful architect making stylish lampshades from old test tubes.

Upcycling is the term used when creative ideas and craftsmanship give discarded products a new lease on life, for example as a chic accessory or elegant piece of furniture. This mostly takes place at cottage industry level, though. There have been no large-scale upcycling projects for disposable products so far, but a number of possibilities do exist.



#### BLACK FROM WHITE

Environmental protection organizations estimate that global paper production in 2015 amounted to some 440 million metric tons. Most of this is recycled and the quality normally suffers. Paper composite panels are the exception. This high-grade surface material is produced from waste paper and phenolic resin using thermal recycling (waste-to-energy) technology. The extremely durable and stable paper composite is used to make items such as kitchen work surfaces, skateboard ramps and guitar necks – in all kinds of colors.



#### IN THE GREEN

Bonn-based start-up company True Fruits is doing a roaring trade with its smoothies in glass bottles. The juices are made one hundred percent of fruit and vegetables and are advertised using clever attention-grabbing puns. The company has come up with various ideas for upcycling the empty bottles. They use the vitamin drinks' stainless steel caps to produce new attachments that enable the bottles to live on as salt shakers, soap dispensers or drinking bottles. The printed smoothie containers keep the brand fresh in customers' minds while also cutting down on waste - the ultimate in upcycling.









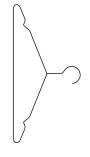
#### **AHEAD OF HIS TIME**

Adam Hills was an upcycler before the term was even coined. He started his furniture design business in London in 1993, long before the "used look" interior design trend became popular in homes. The architect and his wife used materials from empty, derelict houses to produce beautiful furniture for their own home. Visitors were impressed, which soon led to the opening of Retrouvius – a store for interior decoration, furniture and home accessories. Almost everything in the store – from lampshades, windows, doors and timber to paints and fabrics –is made from old materials. Hills now gets interior decoration assignments for fashion stores and show homes – often with a budget running into millions.



#### **ROOM WITH A VIEW**

"Be the change you want to see in the world" is the motto of the team running Vienna's Boutique Hotel Stadthalle. The hotel has 1,400 square feet (130 sq. m) of solar panels, a photovoltaic system and a water heat pump, while a new extension meets the passive house standard – entirely in keeping with the hotel's "sustainability in tourism" business model. The latest facet of this sustainability was the result of a collaboration with Vienna's University of Applied Arts at the beginning of 2014. Seven guest rooms have been renovated and furnished almost entirely using upcycling, including firewood turned into coffee tables, books serving as nightstands and newspapers acting as footrests. With coat hooks fashioned out of old cutlery and shelving made from bicycle parts, anyone spending the night here will leave little or no carbon footprint.





#### **DISPOSABLE REAL ESTATE**

Panama has beautiful beaches but also mountains of discarded plastic bottles that no one disposes of. This bothered Canadian Robert Bezeau and he started collecting the bottles. Having accumulated around one million in the space of one-and-a-half years, he came up with an idea for putting them to good use. Stacked in large wire baskets and supported by concrete pillars, the bottles combine to create houses that can be built quickly and cost-effectively. "Plastered inside and out, they are stable and can even withstand a hurricane or earthquake," says Bezeau. Money is not the main motivation for him. The aim of his idea is to free the planet of a little waste and draw attention to the importance of waste prevention. What's more, anyone having a house built in this way will have recycled the equivalent of all the plastics bottles they will use in their entire lives.



**HEIDELBERG** 



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NEW YORK Pebruary 15th 1919.

1-136-138 BROADWAY.

PLAYLIST

## INTERESTING DEVELOPMENTS AT HEIDELBERG



#### ZERO DEFECT PACKAGING

Discover how to prevent, detect and rectify defects during folding carton production at:

heidelberg.com/ZDP



#### READERS' LETTERS

#### Chris Greiling, USA

I believe the answer to the question from HN 279 – What is the two inventors' mechanical composing machine called? – is PIANOTYPE.

Here is a portion of an old review of the machine:

"The first thing we shall notice about this beautifully-got-up volume is that it has been been typographically composed by machinery,—by means of an apparatus somewhat after the construction of a piano-forte, which touched, it may be by female fingers, drops the letters into their proper places; dispensing with the usual number, and certain of the usual operations, of regular compositors."

(The Monthy Review No. 3; Nov. 1842; p. 275)

Thanks and regards and very nice magazine!



#### Send us your comments!

We're happy to hear your suggestions, praise and criticism.

heidelberg.news@heidelberg.com

#### COMPETITION

#### **CAN YOU TELL US?**

The demand for printed information, education and entertainment was high in 1835. In the newspaper industry's heyday, 15 years before Heidelberg was founded, Bernard Sheridan laid the foundation for his company in New York. The Sheridan Company quickly made a name for itself as a magazine- and book-binding specialist, but 30 years later it revolutionized the processing of magazines and catalogs. Its perfect binding machine marked the first commercial use of mechanical adhesive binding - a technique that the company perfected over the ensuing decades. The real breakthrough came at the end of the 1940s, when Sheridan and DuPont joined forces to develop a new holtmelt adhesive that made perfect binding the number one book-binding method. Newspaper and magazine production also benefited from two innovations of the U.S. company that Heidelberg acquired in 1996. One is the newspaper insertion machine, which collates all sections automatically. The second invention marked a big step forward for magazines in particular.

What technique – truly innovative at the time – are we looking for?



#### 1<sup>st</sup> PRIZE

iPad Air

#### Do you know the answer?

If so, write to us at

#### heidelberg.news @ heidelberg.com

and, with a little bit of luck, you could win one of 10 great prizes from our merchandising shop. The closing date for entries is January 31, 2018.

#### THE ANSWER TO THE COMPETITION IN HN 279 WAS:

Pianotype

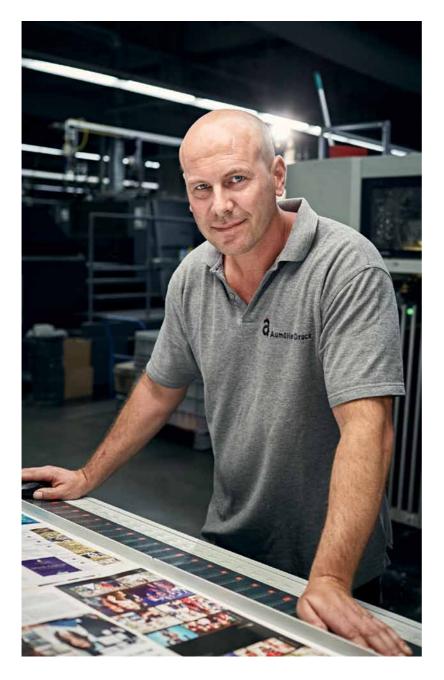
#### 1st PRIZE:

#### **FRANK DEWAELE**

Drukkerij Dewaele Nieuwpoort, Belgium

The other winners will be notified in writing.

The judges' decision is final. Employees of Heidelberger Druckmaschinen AG and their families may not take part. Prizes cannot be substituted for their cash equivalent. Full conditions of entry are available at heidelberg.com/hncompetition.



#### AT WORK

#### ALEXANDER MAYER FROM AUMÜLLER DRUCK IN REGENSBURG, GERMANY

### W

hen it comes to trying out new things, Alexander Mayer (41) is always at the head of the pack. Alexander, a printer and press operator, is responsible for a Speedmaster XL 106 at Aumüller Druck in Regensburg, Germany. However, this is no "ordinary" model, but a field-trial unit that Heidelberg uses to test new functions in actual production. "There's nothing nicer than always working with the latest technology," Alexander says, even if the odd function in the trial phase doesn't always run smoothly. Most of the time he is highly impressed with the press's capabilities, and his feedback helps the developers enhance these further still.

Alexander was instilled with a passion for presses from a very young age, since his grandparents and mother also worked in the industry. "So it was quite natural that I would become a printer, too," he laughs. He began his career in Schwandorf in 1991 and moved to Aumüller Druck in 2003. During this time, he has always remained faithful to Heidelberg, just as he has to his home in Germany's Upper Palatinate region. His house in the countryside is only 20 minutes by car, which leaves enough time for his family and large garden, where there is always plenty to do.

#### **IMPRINT**

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