

Heidelberg

News

The customer magazine
Since 1930 • Issue 272 • 2011

A Pure Passion for Print

Pinsker Druck und Medien in Mainburg, Germany

Perfect Results

Coating on Both Sides with the
Speedmaster XL 75 and XL 105

Tactical Substitution

Why switching to Saphira makes sense

HEIDELBERG



Darwin Would have Told the Difference

Dear Reader,

Charles Darwin published his theory of evolution 152 years ago, with “survival” and “reproduction” playing a key role in it. Nowadays, Darwin might have become an economist, as business, too, is primarily about survival and growth. Leaving aside all the theory, this is something you probably experience firsthand in your own working environment!

It's obvious where the main focus has been in the last few years – the search for growth during the economic crisis has been a tough undertaking, with many fighting just to survive. Unfortunately, some have already lost the battle. As regrettable as this is, it clearly shows that what may take nature millennia to achieve takes only a few months in the globalized economy. After a poor 2009, there were a few signs of green shoots in 2010 until share prices once again crashed abruptly this year.

This dynamic development poses a particular threat for companies that haven't yet adapted to current market conditions. The market is still there, but it demands things such as minimized operating costs, increased productivity and added value for end customers. This involves businesses making themselves “fit” for the future in the truest Darwinian sense of the word.

This is where we can help – not just with extremely powerful machines but also with customized consultancy services. Together, these form a package that will make you stand out from the crowd and better able to weather difficult times. You'll find a few examples of this on the following pages. Once again, I hope this issue contains something of interest to you and wish you an enjoyable read!

Sincerely,

Bernhard Schreier
Chief Executive Officer, Heidelberger Druckmaschinen AG

Contents

Heidelberg News • No. 272 • 2011

PROFILES

6 Setting the Stage for Success

Streamlined processes, a high vertical range of manufacture and a friendly corporate culture have helped Pinsker Druck und Medien GmbH become one of the most successful print shops in southern Germany.

16 Dynamic Duo

When less is more. Replacing four old presses with two Speedmaster XL 105 units has helped Daniela and Robert Klampfer significantly boost productivity and growth at the Klampfer Group – and buck the market trend.

SPECTRUM

24 News & Reports

from the world of Heidelberg

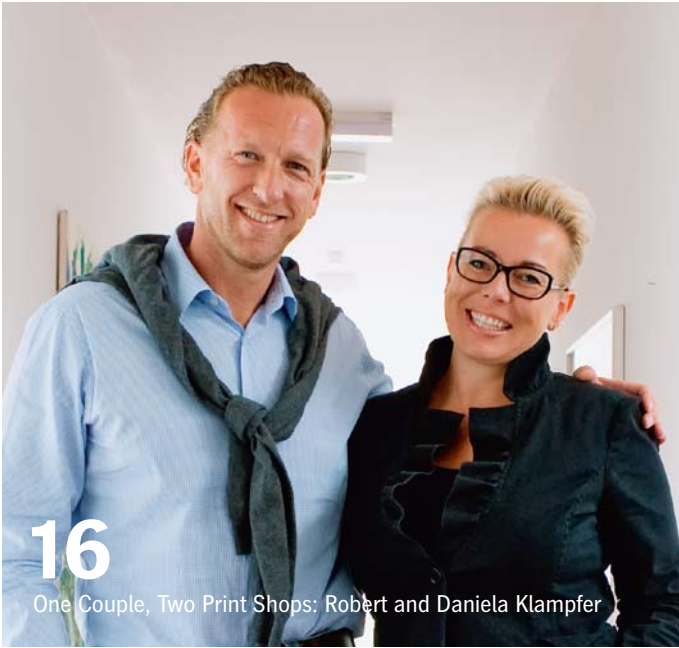
SOLUTIONS

28 Dazzling Results

Out-of-the-ordinary effects can be applied cost-effectively to even the shortest of runs thanks to equipment such as the Speedmaster SM 52 Anicolor, now also available as a UV version.

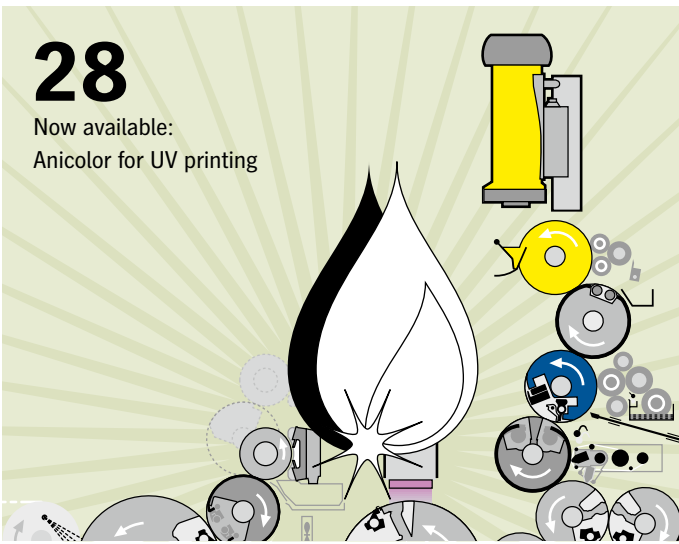
34 Coating, Perfecting, Coating

High-speed coating: The Speedmaster XL 75 LPL and XL 105 LPL coat both sides in a single pass.



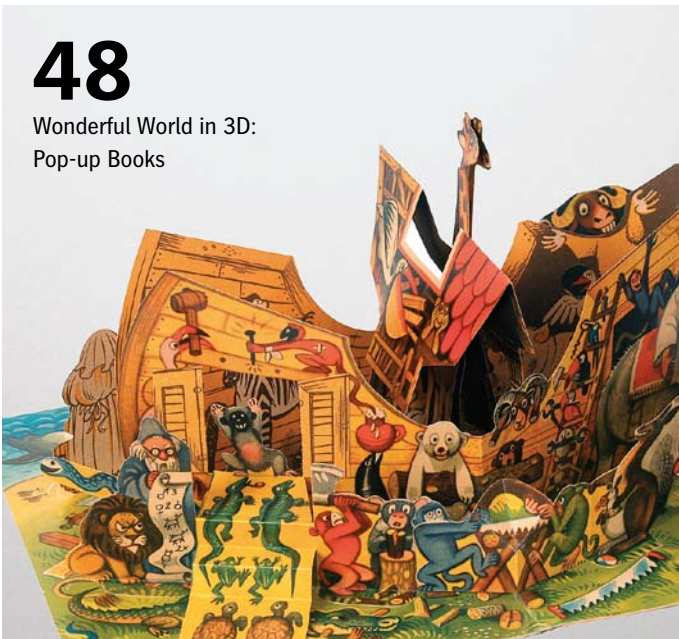
16

One Couple, Two Print Shops: Robert and Daniela Klampfer



28

Now available:
Anicolor for UV printing



48

Wonderful World in 3D:
Pop-up Books

INNOVATIONS

38 1-TAG Combination Lock

Bad news for product pirates – 1-TAG, the security solution developed by Heidelberg, combines random physical processes with a cryptographic signature that can be verified using a smartphone app in a forgery-proof process.

41 Spectral Color Measurement for Beginners: Prinect Easy Control

Simply operated, simply better – the Prinect Easy Control color measurement system is fully integrated into the Prinect Press Center press control station and produces perfect results at the touch of a button.

OPPORTUNITIES

42 Truly Effective ...

When it comes to consumables, many believe that “if it ain’t broke, don’t fix it.” But making a change can be very worthwhile. Four print specialists from three countries explain why they decided to switch to Saphira.

PERSPECTIVES

48 Pop up!

Open it up and be amazed – pop-up books are still as fascinating as ever. That’s thanks to pioneers such as Vojtěch Kubašta, Peter Dahmen and Matthew Reinhart, who are taking the artform to the next level.

COLUMNS

4 Spotlight

53 Tips and Tricks

54 Men at Work

55 HN Voices

55 Winners of the Reader’s Survey – HN 271

55 Imprint



Rock On!

When looks really do matter, pearly luster effects, cold foil, spot coatings and MetalFX have long been used to get print products in the groove. Nonetheless, it can't hurt to add a new record to your collection of coatings and special effects. And this is it: Cristala from Heidelberg conjures crystal clear lines on printing stock from within the press. Nothing is embossed and yet that is exactly how it feels. The new Cristala effect can be used to create extraordinary and astonishing features that are visible, tactile and could potentially produce audible results if the print product is well received by the customer.

The patented process is particularly effective when used with special patterns from prepress. Heidelberg application consultants and developers are on hand to provide the necessary know-how for choosing the right process technology, the best patterns and the most suitable materials for the printing process. They can be contacted via the following e-mail address: Heidelberg.Cristala@Heidelberg.com.

Setting the Stage for Success





PINSKER DRUCK UND MEDIEN //

Pinsker Druck und Medien in Mainburg started out in 1897 as a one-man bookbindery and now has 120 employees. Its not entirely undramatic success story – a tale of the passion for printing – splits neatly into five acts.

» Act 1: «



he celebration. A print shop that has been around for 132 years like Pinsker Druck und Medien has a good many stories to tell – tales of happy years and tales of tragic ones.

One happy tale comes from 2004 – July 23 to be precise – when the print shop celebrated its 125th anniversary. More than 230 guests gathered at a castle, Schloss Ratzenhofen in Lower Bavaria, to celebrate with staff and business partners. Company owner Horst Pinsker gave a lighthearted speech. In just 30 minutes, he managed to cover the family company’s entire history, from its humble beginnings as a one-man bookbindery to the present day. In the process, he mentioned every single one of the 100 plus employees by name – and had a kind and sincere word for each of them.

Then came the highlight of the evening – “Gautschen” – an old ritual of the German Printers’ Guild to “baptize” young employees into the honorable profession of printing. Master of ceremonies Horst had dressed specially for the occasion. In medieval garb, including a hat with a peacock feather, he called “Gutenberg’s children” forward to be “baptized” to the accompaniment of drums ▶





Owner, Managing Director and aficionado of the art of printing: Horst Pinsker in the pressroom of his 4,500 m² print shop (left). Daughter Cornelia Pinsker, currently responsible for workflow and quality management, is in line to take over the reins in the future (right).



and flutes. That particular evening, 26 employees answered the call. And Horst took devilish delight in seeing each of the “victims” being sat on a wet sponge, splashed with water and then unceremoniously thrown into a barrel of water by three burly men. Horst himself also ended up taking a dip. It was a wonderful, festive evening – a real ball!

» Act 2 «

The tragic year. Things could have turned out very differently, though. Exactly 25 years previously, in 1979, the print shop was

preparing for its 100th anniversary. But this year was to be an ill-fated one for the Pinksers. Horst’s grandmother died in February, followed seven months later by his grandfather. Then, just one day after the anniversary celebrations in mid-July, his father was taken to hospital, where he was diagnosed with cancer. Sepp Pinsker, the man who had transformed the company into a modern-day, up-and-coming print shop with (at the time) 35 employees and retained full control to the very end, was never to leave the hospital unfortunately. He died on October 30 at the age of just 53.

Now 53 himself, Horst was only 21 at the time. After training as a typesetter and gaining some initial experience at a print shop in

Munich, he had just completed his military service. “My mother and I were devastated, but we never considered selling the business. We focused solely on the need for everyone to knuckle down and pull together,” he recalls.

When he took over the company that same year, reactions were initially subdued. “For most people, my father was the print shop. Many of them no longer gave two hoots about us,” he says, not mincing his words. This made itself felt very directly, for example when a gas station in Mainburg was unwilling to give the print shop gas on account in case it went bankrupt. But it didn’t come to that. Following her husband’s death, Horst’s mother received some cash from life insurance policies. Käthl invested all the money in a four-color GTO press and in expanding the print shop. “My mother’s optimism and trust set us up for the future,” says Horst. Käthl is now 83 but still deals with the print shop’s mail. And she has remained in the home she shared with her husband until 1979 – on the top floor of the print shop, directly above the entrance, in a street that is now named after the family – at Pinskerstrasse 1.

» Act 3 «

From the brains to the beating heart. In 1968, Pinsker Druck und Medien relocated from its original premises in Mainburg’s old town to a purpose-built modern print shop – a success story literally set in stone. The building has been expanded a total of eight times since then to cater to the company’s growing requirements. Since the tragic year that shook the print shop, Pinsker Druck und Medien has been transformed into a company that covers an area of 4,500 square meters and now has 120 permanent employees. Virtually all of them “grew up” with Pinsker and they have all helped make the company what it is today. “We are successful because we have a great team we can always rely on. When I see everyone here giving their best and pulling together, I know we’ve got something very special,” says Horst. ▶



Over the past 30 years, the company has trained 130 young people and Horst is proud that he was able to take them all on. “We have never had to resort to compulsory redundancies or introduce short-time working and hopefully that will remain the case,” he says before correcting himself. “Well, there was one trainee I wasn’t able to keep on. That wasn’t a pleasant experience. I couldn’t sleep for days,” he reveals. According to Horst, the ideal qualities for an employee are: “A love of the profession, creativity, a positive outlook and joie-de-vivre.”

The “brains” of the print shop are found on the top floor – 21 media designers and 10 customer representatives, the “care reps” as Horst calls them because each of them sup-

ports customers every step of the way, from costing to delivery. Horst himself is one of this team. “I handle jobs like everyone else and I hope to keep on doing so because I like to have my finger on the pulse,” he explains before adding with a smile. “Running the company is more of a sideline for me.”

Also located on this floor is the office of Horst’s daughter, Cornelia, who will one day take over the company. The qualified media designer and certified print and media technician deals with international customers and workflow optimization. She is also responsible for customer audits and certifications to PSO (the German process standard for offset printing), FSC and for climate-neutral printing. Cornelia is regularly to be

found in the Munich branch, which has four staff and provides local support for customers based in the city. Two further members of the family work at company headquarters in downtown Mainburg. Horst’s wife Renate is responsible for payroll, accounting and HR. She is assisted by Christine, the second of her three daughters.

On the ground floor, behind a conference room that also serves as a showroom, the digital printing and letter shop sections stand alongside the beating heart of the company – a large hall housing the pressroom and postpress section.

Half of the area is taken up by seven presses – all from Heidelberg. They include two five-color Speedmaster XL 105 machines with dispersion coating unit and two Speedmaster SM 102-8 and SM 102-2 models with perfecting device. The other half of the hall is given over to postpress and accommodates a total of 21 machines, including three new folding machines from Heidelberg, a thermal laminator for matt and gloss cellophaning, a Wire-O punching and binding system and various Heidelberg cylinder and platen machines for scoring, die-cutting and embossing. “Our location is a little off the beaten track, so we need a high vertical range of manufacture to enable us to respond quickly to customer requirements without depending on suppliers,” says Horst, explaining the extensive collection of machines.

» Act 4 «

High quality, good and fast. Pinner Druck generated sales of more than 19 million U.S. dollars (14 m. euros) in 2010, just 3 percent of this with local companies. Most customers are based in Munich, Regensburg, Nuremberg or Ingolstadt – ranging from small companies to global automotive and pharmaceutical groups. “We started off as commercial printers and still produce remembrance cards and wedding announcements. Online print shops are also making life difficult for us here, though, so we are increasingly moving into the high-end sector as a specialist for unusual products,” explains Horst. ▶



When she's not in the pressroom, Renate Pinsker (right) takes care of payroll and accounting at the Mainburg headquarters. She is also responsible for HR issues, with support from her daughter Christine (left).



Three Cheers for Beers!

Anyone driving through the heart of Bavaria in August will often see the roads lined with hop vines meters high. They are right in the middle of the world's largest hop-growing region – Hallertau, or Holledau as it is also known. An area as large as Liechtenstein is given over to the cultivation of enough “green gold” to make around 423.7 million cubic feet (12 m. cubic m) of beer every year.

The beer lovers' paradise is located between the towns of Ingolstadt and Landshut. All the raw materials needed to make “liquid bread” grow here in the heart of Bavaria. Hops flourish in the Hallertau region, while a little further to the east the fertile soils of Bavaria's breadbasket produce outstanding wheat. In the north-west, meanwhile, top-class brewing barley grows in the barren Franconian Jura mountains. This is also the source of the clean water used for brewing, which is drawn from a depth of around 98 feet (30 m). A little yeast is all that's needed to complete the ingredients for 4,000 varieties of German beer.

The locals claim this recipe as their very own. It was George the Rich, Duke of Landshut, who was the first to proclaim beer legislation for Lower Bavaria. That was in 1493. The brewing ordinance known as the “Reinheitsgebot” (purity law) was not passed until 23 years later, on April 23 in Ingolstadt by Wilhelm IV and Ludwig X. One way or another, this can be seen as the world's oldest food legislation. Today, all 1,367 German breweries – more than 600 in Bavaria alone – still comply with it.

Although global beer consumption is rising slightly, the number of German breweries has virtually halved over the past decade. To survive, even breweries with the richest tradition need to think of something to make them stand out – and that includes Weissbierbrauer Kuchlbauer, which dates back to 1300. “Nowadays, it isn't enough to brew good beer, and that's why we created our World of Beer,” says brewery owner Leonhard Sallek. Since 2009, the highlight of this visitor attraction has been the tower designed by artist Friedensreich Hundertwasser, which from top to bottom is full of references to the art of brewing. Hundertwasser's creation may not be to everyone's taste, but the attraction's success proves Sallek was right. More than 150,000 visitors each year have led to a significant increase in the brewery's sales. And Kuchlbauer beer undeniably tastes great – trying it is even better than discovering the art of brewing!

Although the print shop has had a customer-specific web-to-print portal for standard jobs since 2009, it is other products that are the real growth drivers. They include art prints, advertising materials designed in-house, magazines and annual reports – some with elaborate finishing, which is also done on the premises. “Our larger customers in particular are looking for print products that set them apart from the competition and expect us to help them achieve this. We can offer them a number of options – from dispersion coatings on metallic inks, scented coatings and drip-off applications to the use of lenticular films, hot-foil embossing, laser die-cutting and lamination with a linen texture,” says Horst.

It goes without saying that such unusual products also require exceptionally good production processes. “Around 95 percent of our customers are regular customers who expect consistently high quality from us, and we go to a great deal of trouble to ensure they aren't disappointed or dissatisfied and have what they need,” adds Horst's daughter Cornelia, who is also in charge of quality and process management.

For example, the press operators write down the density values and formulations of special inks for use in future repeat jobs. They note which powder was used and the temperature in the press during printing. “This enables us to reproduce virtually any job at any ambient temperature in summer or winter – from basic business cards to annual reports,” she says. Her plans also include further modernization of the company in the future. “We now have more than 10,000 jobs each year. The only way to ensure consistently high quality and meet ever tighter deadlines is with increasingly streamlined and transparent processes,” she continues. That's why workflows are constantly being refined and worked on to process jobs more smoothly and efficiently while still maintaining the same high level of quality at the print shop. Cornelia is also planning a quality department along the lines of the samples department of an American print shop in Los Angeles where she completed a placement in 2006. It will check print products for top-rate processing before they are sent out to customers for final acceptance.

To ensure the large number of jobs can be completed without any hitches, the company uses the Prinect print shop workflow, which ensures an end-to-end flow of data. Thanks to Prinect, it takes just 20 minutes to get from PDF preflight to imaged printing plates for standardized jobs. This includes imposition, form proofing and customer approval processes. The workflow is also essential for a dealer magazine with 4 + 24 pages that the print shop produces for an auto-maker three times a year. "Each of the 100 dealers gets its own individual magazine that we print in runs of between 1,000 and 10,000 on our sheetfed offset presses – within just one working week. To start with, the production process was a huge rush but we are now so well versed that the job gets done almost in passing," explains Cornelia.

» Act 5 «

A life dedicated to printing. Prinect and computer-to-plate are important for Horst, but anyone who has seen him as the master of ceremonies overseeing "Gautschen" or in the company of his friends talking about Johannes Gutenberg or about typographer Jan Tschichold may suspect that his heart belongs to a different era in printing.

The result of this passion is a traditional printing workshop that he has set up at the Mainburg headquarters – in keeping with the style of the times, with three old Boston platen presses, a proofing press, 195 lead and wooden letters and many other unique items collected over the years. The workshop is not just for show, though. It is still in actual use. In 2010, for example, it was used to make Christmas gifts for customers that money simply can't buy – 500 handmade boxes containing the customer's name set in lead letters, a miniature book about Gutenberg and a small USB stick.

Horst has no problem combining tradition and modernity, though. Together with his master printers, he recently examined the very latest generation of presses and was highly impressed by an eight-color Speedmaster XL 105 with perfecting device and Prinect Inpress Control. "One demonstra-

tion showed cartons weighing 500 grams passing through the press at top speed. That's phenomenal!" he enthuses. An order has already been placed for the press, along with a new five-color Speedmaster SM 52 with dispersion coating unit. Both are scheduled to be taken into production in 2012. The long-established company is not at all worried about the need to attract more orders to take full advantage of the higher productivity. "Our best years still lie ahead of us," says Horst confidently. ■



The woman responsible for kick-starting another successful chapter in the company's history: Käthl Pinsker, who still helps out with the mail at the print shop.

Pinsker Druck und Medien GmbH

84048 Mainburg, Germany
 info@pinsker.de
 www.pinsker.de
 www.heidelberg.com/en/XL105
 www.heidelberg.com/en/SM102
 www.heidelberg.com/en/SM52

HEIDELBERG NEWS: ONLINE READERS' SURVEY 2011

**HELP US BECOME EVEN BETTER.
TAKE PART IN OUR ONLINE READERS' SURVEY.**

We'd like to continue to use Heidelberg News to present those topics of greatest interest to you. So please tell us what you think. Take part in our online readers' survey 2011 and let us know what you like about Heidelberg News, what topics you'd like to see and what we could also do to make the magazine even more useful for you in the future.

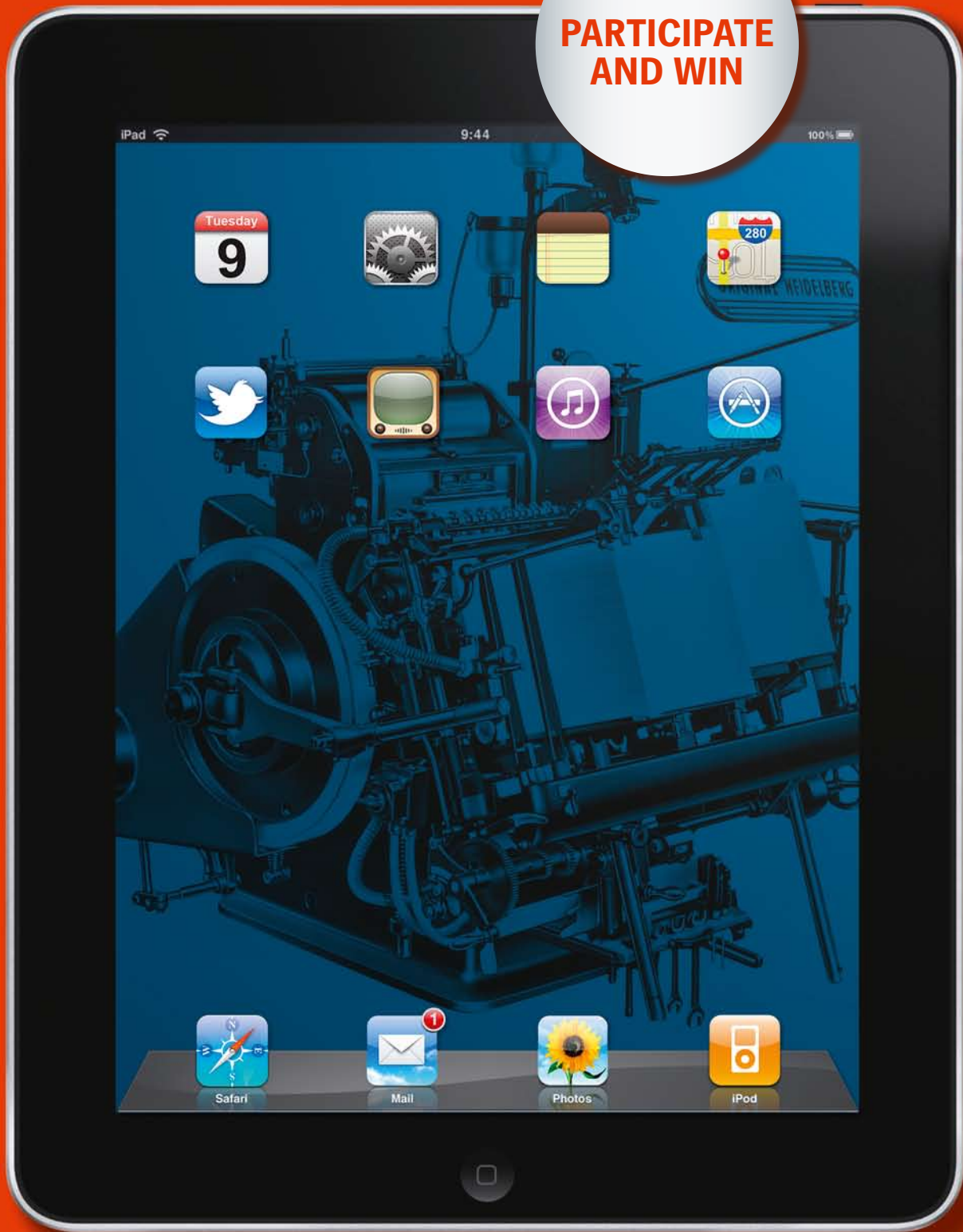
The survey takes only a few minutes and you also stand the chance to win a number of attractive prizes:

- 1st prize:** An iPad
- 2nd – 4th prize:** An iPod touch
- 5th – 7th prize:** A voucher for 100 euros to spend in the Heidelberg Merchandising Shop

Take part online at:

WWW.HEIDELBERG.COM/EN/HN_SURVEY

**PARTICIPATE
AND WIN**





DYNAMIC DUO

KLAMPFER GROUP // Daniela and Robert Klampfer enjoy living life in the fast lane. They have just bought a vintage car and soon hope to be setting the pace at rallies. What's more, their two ultra-fast Speedmaster XL 105 presses are currently resulting in trend-bucking growth at their two print shops, which are part of the Klampfer Group in Austria.





Trend-bucking growth. Given such figures, the welcome you get from Daniela and Robert Klampfer when visiting the Klampfer Group in the Styria region of Austria comes as something of a surprise. The husband and wife team are all smiles and when asked “How’s business?” they reply in unison “Good.”

Daniela and Robert are a little bit like Austria – exceptional – not simply because they are both responsible for their own print shop within the Klampfer Group, but also because they are both extremely successful. “Over the past two years, our sales have increased by around 15 percent,” says Daniela, Managing Director of Universitätsdruckerei Klampfer in the town of St. Ruprecht an der Raab. “It’s a similar story with us. Last year, our sales climbed to 7.7 million U.S. dollars (5.7 m. euros) and this year we are looking to pass the 8.2 million U.S. dollars (6 m. euros) mark,” adds Robert, Managing Director of Druckerei Thalerhof in Feldkirchen, near Graz.

One of the reasons behind this success is the group’s business strategy. The two print shops operate largely independently on the market and target different customer groups. The 70-strong workforce at Universitätsdruckerei Klampfer, for example, mainly concentrates on larger jobs with runs of 10,000 or more and very tight deadlines. Every week, for instance, the print shop produces posters and leaflets with different special offers for the 1,500 or so branches of one of Austria’s leading supermarket chains. Printed overnight, the following day they are cut, collated, folded, packed and delivered in the print shop’s own truck to the customer’s headquarters in Vienna. There are between 50 and 130 individual products for each branch and around 25 to 30 printing plates are needed.

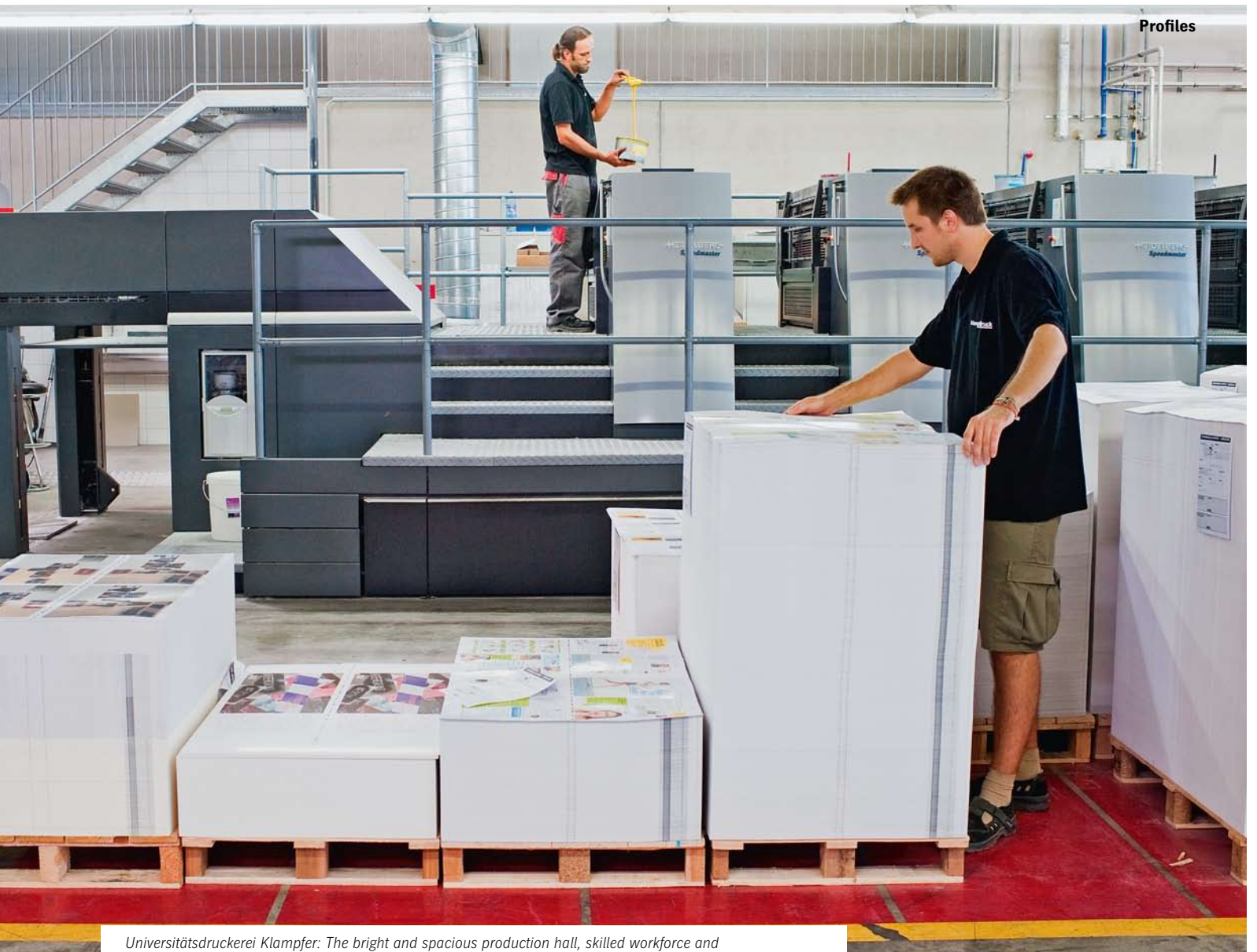
The Thalerhof print shop, on the other hand, is a specialist in smaller, more complex jobs. Its 37 employees produce commercial products such as image brochures, annual reports, magazines and embossed business cards on high-quality paper. Thalerhof, too, is seeing ever shorter print runs. “On the other hand, there is a clear trend among both business and private customers towards high-finish products,” says Robert. “This benefits us on both counts,” he adds, given what that means for the business. ▶

With its magnificent towns, amazing mountain and lakeland scenery and globally unique music culture – not to mention a host of culinary delights including the famous Sacher Torte – Austria is a tourist magnet and attracts visitors from around the world, many of whom are reluctant to leave. It is an exceptional country, but the same cannot be said of its print market. Like numerous print shops in other countries, the businesses here – which employ a total of around 13,000 people – are facing fierce competition and shrinking runs. Between 2002 and 2009 alone, Austria lost 25 percent of its market share to other European countries. Many print shops produce at any price, even if they fail to cover the cost of materials. Although the economy has now recovered slightly, profits are still stuck at a low level. The average gross profit is currently only just over 1.3 percent.

„THE PRODUCTIVITY OF OUR XL IS AROUND 5 PERCENT HIGHER THAN THE TWO OLD MACHINES PUT TOGETHER.”

DANIELA KLAMPFER, MANAGING DIRECTOR OF UNIVERSITÄTSDRUCKEREI KLAMPFER





Universitätsdruckerei Klampfer: The bright and spacious production hall, skilled workforce and Speedmaster XL 105 with perfecting device create the ideal conditions for productive operations.





Thalerhof print shop: Besides conventional jobs, the company also produces some 450,000 school books every year between January and August, with different covers for each individual school.



“THE SIMULATIONS WERE A GREAT HELP TO US, BECAUSE THEY GAVE US HARD FIGURES TO WORK WITH AND WE DIDN’T HAVE TO RELY ON OUR GUT INSTINCTS.”

ROBERT KLAMPFER, MANAGING DIRECTOR OF THE THALERHOF PRINT SHOP

Although the print shops in the Klampfer Group have different positioning strategies, overlaps are actively encouraged. “Our two companies are well coordinated. We have the same machine settings, which makes it easy for us to carry out work for each other,” explains Daniela. “Despite this, we are also competitors,” adds her husband. “We sometimes sit together after work comparing figures and wind each other up if one of us has failed to reach our targets,” he continues, smiling at his wife. She smiles back, nodding, and replies, “That’s right, but that’s what being a couple is all about.”

Shrewd investments in difficult times. Comprehensive restructuring measures at the Thalerhof print shop and investments in a new Speedmaster XL 105 for each of the two businesses have also played a key role in their success. Prior to the new acquisitions in 2008 and 2009, Thalerhof in particular was battling with massive efficiency problems. Each of the five production rooms, which had been added over time, had one press and associated postpress equipment. “The material flow was a real mess,” recalls Robert. The presses were also hopelessly out of date. “As run lengths continued to shrink, our waste rates steadily climbed to more than 20 percent. Maintenance costs for the presses were also getting ever higher. It really was high time to take drastic action,” he continues about the inefficiency.

To turn things around, Robert got in touch with Heidelberg Business Consulting. Consultants from the company arrived in Feldkirchen soon afterwards in March 2009. The first step in the “Anto-

nella” project, named after the couple’s 3-year-old daughter, was for the consultants to take a close look at the whole of the 24,218 square feet (2,250 sq. m) print shop with a view to optimizing the production flow, production times, and the cost structure. “I was initially surprised to see flip charts being used, as we used these ourselves, but it quickly became apparent how effective this method actually is. Everyone could get involved, grab a pen and add their ideas. This intensive collaboration quickly led to very good results,” explains Robert.

The second step was for the consultants to analyze the job structure and use the Biz-Model simulation software developed by Heidelberg to establish the key company figures over the past nine months. Once this had been done, the impact of potential investment scenarios based on different presses in various configurations was simulated. “It blew me away to see just what was possible with the potential replacement presses from Heidelberg,” says Robert. “Above all, though, it was the simulations that were particularly helpful because we didn’t have to make a decision based on our gut instincts but had clear figures in front of us which, by the way, were subsequently proven correct,” he adds.

Less is more. After the “Antonella” project, Robert and his team got down to work. Machines were dismantled and reassembled so that ultimately all the production areas were clearly structured. The big breakthrough was getting rid of two old presses in full-sheet format to make way for the new acquisition – a five-color Speedmaster XL 105 with coating unit, Prinect Inpress Control and Auto-plate XL. The simulations had shown that this was the ideal solution for Thalerhof.

Impressed by the simulation results, Daniela also decided to work with the team from Heidelberg Business Consulting. Although the material flow at her print shop did not require any adjustment – Universitätsdruckerei Klampfer is housed in a prestigious state-of-the-art building covering 48,437 square feet (4,500 sq. m) that offers plenty of space for equipment, staff and a smooth material flow – she was unhappy with the productivity of her two eight-color presses, ▶



even though they were only three years old at the time. “That’s why I was initially against a new investment, but with print speeds of 9,000 and 12,000 sheets per hour and make ready times of up to 45 minutes, we were simply no longer efficient enough for our job structure. We virtually had our backs against the wall because there was no scope to go any higher,” she explains.

The simulations showed that both existing machines could easily be replaced by an eight-color Speedmaster XL 105 with perfecting device, Autoplate XL and Prinect Inpress Control. By making the switch, the print shop would even benefit from additional capacity reserves. “Despite my initial skepticism, I ultimately found it easy to make the decision to purchase the press, all the more since we are not in the habit of collecting printing units for the sake of it – and definitely not when less is more as in this case,” says Daniela.

High productivity twice over. The Klampfer Group has now been using both Speedmaster XL presses for two years. The straight press at Thalerhof operates virtually continuously at the maximum speed of 18,000 sheets per hour and has now clocked up 90 million sheets. Robert is more than satisfied with the machine. “The far superior quality has won us numerous new customers. What’s more, many former customers who went elsewhere because of less than optimum print quality have now returned,” he says. The enhanced productivity is all the more satisfying given that two old machines have been replaced by one new one. “Prior to the switch, we printed an average of 26 million sheets per year. Now we are printing around 45 million, i.e. roughly 70 percent more,” Robert continues, adding that this is due not only to the higher print speed but also to shorter makeready times. “Simultaneous plate changes with Autoplate XL save us around five minutes per job. And with around 6,000 jobs a year, that soon mounts up,” he stresses.

At the university print shop in St. Ruprecht, meanwhile, the perfecting press cuts a fine figure. “The productivity of our XL is around 5 percent higher than the two old machines put together and machine setup is

now over 30 minutes faster,” says Daniela. She adds that energy consumption at the two print shops has fallen by around 25 percent. A further benefit for the print shops with their carbon-neutral printing and PEFC certification is that the alcohol content during the printing process has been reduced from 8 to 4 percent.

Daniela and Robert have just ordered two new machines for Thalerhof – a die-cutter with hot-foil device and a Speedmaster SM 52 five-color Anicolor press with coating unit. “We are also looking to improve the quality of small-format jobs, cut waste and enhance the in-house value-added chain in the finishing segment,” says Robert, outlining the aims of the purchase.

Away from work, the Klampfers also like to set concrete targets. They are passionate about taking part in vintage car rallies and recently acquired their very own vintage model – a 5.9 liter 250 HP Oldsmobile Rocket 88 made in 1949. The swanky car has just undergone a complete restoration. Only the engine and transmission still need to be overhauled before the Klampfers can head for the start line. And you can be sure they will be among the frontrunners. ■

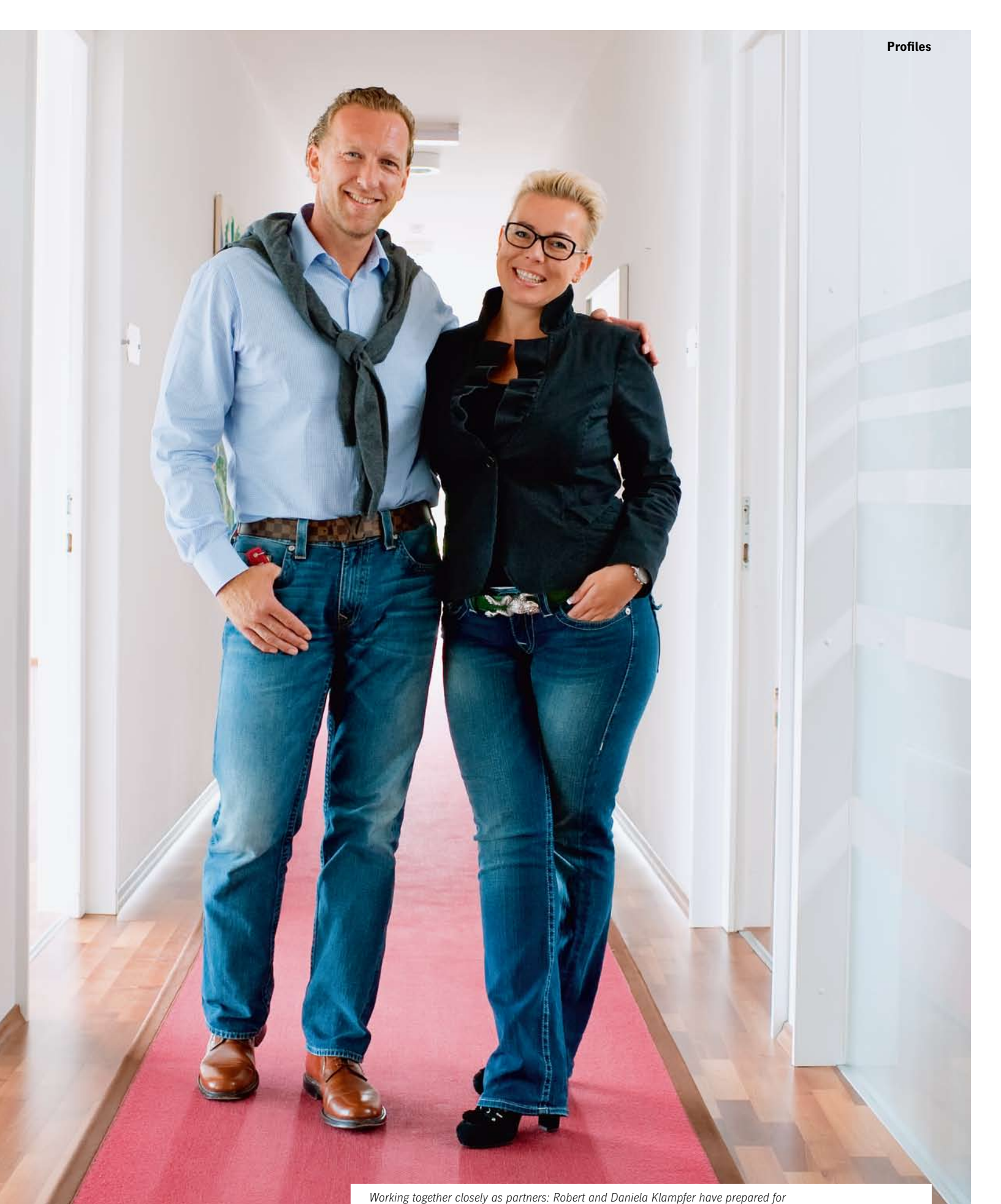
Universitätsdruckerei Klampfer GmbH

8181 St. Ruprecht/Raab, Austria
office@klampfer-druck.at
http://udk.klampfer-druck.at/

Druckhaus Thalerhof

8073 Feldkirchen/Graz, Austria
office@druckhaus.at
http://www.druckhaus.at/
www.heidelberg.com/en/XL105
www.heidelberg.com/en/SM52_Anicolor





Working together closely as partners: Robert and Daniela Klampfer have prepared for growth with smart investments.

News & Reports

STEPHENS & GEORGE PRINT GROUP // HEIDELBERG IN THE PRESENCE OF ROYALTY

UNITED KINGDOM. Around 2.5 billion people turned their attention to London on April 29, with hardly a TV viewer wanting to miss out on the “wedding of the year.” As Prince William and Catherine Middleton exchanged their vows, Heidelberg was not just watching but was even in attendance in the form of the “Official Royal Wedding Programme,” printed on a Speedmaster XL 105-10-P by the Stephens & George Print Group (S&G) based in Merthyr Tydfil in South Wales. “Quite a straightforward job in production terms, with 24 pages plus cover and a run of 150,000 copies,” says S&G boss Andrew Jones. However, keeping things secret was a real challenge!” Indeed, the printers only found out about their royal mission on April 18 when the data arrived at S&G from Haymarket publishers. All 220 employees kept mum until the approved publication of the program a day before the wedding, something the Queen is sure to have been “amused” about. In another piece of good news, the proceeds from the sales of the wedding program went to the Foundation of Prince William and Prince Harry, which supports charitable projects for young people, the environment, and ex-service personnel.

info // www.stephensandgeorge.co.uk

WORLD FIRST AT HEIDENREICH PRINT // FIRST SPEEDMASTER XL 145 UV

GERMANY. Heidenreich Print, based in Bünde in North Rhine-Westphalia, Germany, has become the first print shop in the world to take a Speedmaster XL 145 UV into service. Managing Director Hendrik Heidenreich wanted a six-color press with coating unit for his 60-strong team that would run conventionally and in hybrid and UV mode. To meet these requirements, the company ordered a version of the press with three UV interdeck dryers and one UV dryer in the delivery. “This configuration gives us more flexibility in how we respond to our customers’ needs for everything from conventional standard printing to high-finish premium products,” explains Heidenreich. The large-format press also enhances the company’s already outstanding reputation as an innovative high-end print shop for commercial and packaging printing. Rudolf Becker, Commercial Director at Heidenreich Print, is already excited about real productivity gains: “After the fantastic experience we’ve had with the Speedmaster CD 102 and XL 105, we’re now entering a new performance class in the large-format segment, too.”

info // www.heidenreich-print.de and www.heidelberg.com/en/VLF



© Courtesy of St. James's Palace. Copyright PWRH Trading Ltd.

A secret mission – all 220 employees of Welsh print shop Stephens & George Print Group kept quiet when they received this royal print job for William and Kate.



Innovative and flexible – Rudolf Becker and Hendrik Heidenreich (from left) from Heidenreich Print are using the world’s first Speedmaster XL 145 UV for an extremely broad range of print products.

THE DIGITAL PRINTING STRATEGY IN ACTION // THE NEXT MOVE TOWARDS THE PACKAGING MARKET

GERMANY. In mid-2011, Heidelberg took over CSAT GmbH. Based in Eggenstein, near Karlsruhe in Germany, the company develops, manufactures and distributes digital printing systems and consumables for the packaging industry. Thanks to its drop-on-demand inkjet and electrophotography solutions, CSAT is a market leader in industrial digital printing systems for production lines. The acquisition is a further step in the growth-oriented digital printing strategy of Heidelberg. The move extends the company's existing digital printing portfolio for the packaging sector and expands the associated customer base, particularly for the pharmaceuticals industry. CSAT has the potential to tap into additional opportunities outside the sector it has thus far focused on. However, customers who previously worked with either one of the companies will see little change, since both businesses will work together to ensure that their new, shared customer base benefits from the very best in technology and service.

info // www.csat.de, www.heidelberg.com and www.linoprint.de



Strategy in action – the takeover of CSAT GmbH has extended the range of digital printing solutions Heidelberg offers for the packaging market and is driving forward expansion in new areas.

SPEEDMASTER XL 162 // DEBUT AT QUADWINKOWSKI

POLAND. Print shop QuadWinkowski, based in Radzymin near Warsaw in Poland, is the proud owner of the first Speedmaster XL 162 to be installed in all of Poland. In mid-2011, the company – part of the U.S. Quad/Graphics group – began production on its new five-color flagship press with coating unit at a modest ceremony to mark the machine's inauguration. Since then, the press has mostly been producing large-format POS displays for export around the world. To ensure maximum quality with minimum paper waste, the 150-strong team at the print shop ordered an XL 162 with the Prinect Inpress Control spectrophotometric color measurement and control system. "It's as if the press has been built specifically for us," report the company's founder Tadeusz Winkowski and president Tom Frankowski. "Our close collaboration with Heidelberg during the project's development phase really paid off."

info // www.quadwinkowski.pl and www.heidelberg.com/en/VLF



Debut in Poland – in mid-2011, QuadWinkowski in Radzymin, near Warsaw, started production on the first Speedmaster XL 162 to be installed in the country.

FOR ALCOHOL-FREE PRINTING // NEW "IPA-FREE" PACKAGE

GERMANY. Heidelberg offers its customers a unique entry-level solution for entirely alcohol-free printing in the shape of the new "IPA-free" package. The package includes special dampening rollers with modified surface materials and structures and an adapted version of the CombiStar Pro for dampening solution processing and inking unit temperature control. It also incorporates Saphira consumables that have been specifically optimized for alcohol-free printing and corresponding training. The new package helps lower risks to health, safety and the environment and also cuts costs – without any adverse effects on quality. As a first step, IPA-free printing is available for the Speedmaster XL 75, SM / CD / CX 102 and XL 105 and can also be retrofitted to these presses. By drupa 2012, the eco-friendly and economical solution will also be available for additional models and UV versions.

info // www.heidelberg.com/en/IPA-free



Easy on the environment and on the wallet: the "IPA-free" package with specially adapted hardware and customized consumables that, along with corresponding training, makes it easy to move to alcohol-free printing.

NEW SKILLS MOVE FORWARD // PRINECT CAN DO MORE

GERMANY. Prinect, the print shop workflow from Heidelberg, will soon be opening up a whole new range of opportunities for its users. A unique industry solution, Prinect can also be equipped, if required, with a fully integrated management information system (MIS) dubbed “Prinect Business Manager.” This system finally brings together administration and production in a single workflow. The same applies to web-to-print applications, which will soon be mapped from start to finish in Prinect – taking in everything from the online shop and job management right through to prepress, press and postpress controls that are perfectly attuned to deliver optimum results for repeats and output devices. Another option is the Prinect Digital Print Manager extension that automates digital, offset and hybrid printing in a single workflow and includes customized color management. To support packaging printing, Prinect Package Designer comes with an Illustrator plug-in that now also supports 3D images and dimensioning. These and other innovations will be gradually integrated into upcoming Prinect releases by 2013 at the latest. All new features will naturally be compatible with existing software environments.

info // www.heidelberg.com/en/Prinect

RICOH PRO C901 GRAPHIC ARTS EDITION // DIGITAL PRINT SOLUTION GATHERS SPEED

GERMANY. Only a few weeks after the strategic partnership between Ricoh and Heidelberg was announced, the first companies have already made use of the new opportunities for very short color runs. In Asia, Thailand-based AMD Motif Co., Ltd. and Eakkarat Graphic Ltd. led the way in opting for the Ricoh Pro C901 Graphic Arts Edition, while in Europe, Alltrade Printers from the United Kingdom became the first customer to choose Ricoh’s digital print solution. All three companies were impressed with the benefits offered by a combination of offset and digital printing. Cost efficiency and the quality of offset printing can be combined profitably with the wide range of personalization made possible by digital printing. The expansion of the global sales network for the Ricoh product is now underway. The C901 Graphic Arts Edition is already available in numerous countries. The system, which can print 90 A4 pages a minute in color and on both sides, is expected to be available globally by drupa 2012.

info // www.heidelberg.com/en/RicohPro



Available soon throughout the world – the Ricoh Pro C901 Graphic Arts Edition that enables profitable printing of very short high-quality runs in combination with a Speedmaster SM 52 Anicolor, for example.

ENVIRONMENTAL PROTECTION IN FIGURES // NEW SUSTAINABILITY REPORT

GERMANY. Heidelberg has been developing environmentally friendly solutions for almost four decades. The new “Sustainability Report 2010/2011” sets out how the company’s commitment to the environment has taken shape over recent months. Divided into 14 sections, the brochure presents all the key facts about issues such as “reducing emissions in the printing process,” “alcohol-free printing” and “reducing paper waste” and sets out how approaches such as using eco-friendly Saphira consumables can help protect the environment. In an interview, Stephan Plenz, Member of the Management Board responsible for Heidelberg Equipment, illustrates exactly how Heidelberg is continuing to improve its environmental performance along the entire value added chain. The new Sustainability Report is available in German and English and can be requested by sending an e-mail to environment@heidelberg.com. A PDF version can also be downloaded from the Heidelberg website:

info // www.heidelberg.com/eco



New sustainability report – progress to date and the outlook for “environmentally friendly printing and cost-effective production.”

GRAPHIC DESIGNER MAX SEIFERT // HEIDELBERG IN THE FAMILY

SOUTH AFRICA. When a Johannesburg graphic design student goes by the name of Max Seifert, you can guess the young man must have German ancestors. When his German grandfather also printed on equipment from Heidelberg, you can be sure the grandson is predestined to take part in the Heidelberg South Africa branding competition. Max not only took part but did his grandpa proud by winning the design contest at the University of Johannesburg. “Max and his fellow second-year students were hugely inspired by the Heidelberg initiative,” said Head of Department Deidre Pretorius, “and this was certainly helped by the practical introduction to the topic.” The students took a look at the Masterpack print shop, for example, and gained an insight into printing technology and corporate design at Heidelberg. Marie-Louise Johnston from the marketing department at Heidelberg South Africa has ensured that Max Seifert’s handiwork now adorns a pick-up truck. His Speedmaster CX 102 design is now traveling across the country to deliver consumables – with a piece of family tradition always on board.

info // www.heidelberg.com/en/CX102



Grandpa’s legacy lives on in design – student Max Seifert (center) won the branding competition held by Marie-Louise Johnston (right) from Heidelberg South Africa with Graphic Design Department Head, Deidre Pretorius (left), University of Johannesburg.

WINNERS FROM U.S AND AUSTRALIA // AND THE ECO AWARD GOES TO ...

GERMANY. The winners of the second international “Heidelberg ECO Printing Awards” were honored in the middle of this year. This time around, the awards went to The John Roberts Company (U.S.) as “most sustainably managed print shop” and Vega Press (Australia) for the “top sustainable innovative solution.” Among other things, The John Roberts Company impressed the prestigious judging panel with a commitment to environmental and social issues that stretches back 30 years and its other ambitious climate protection targets. Vega Press stood out in particular from the 45 competitors from four continents as its print shop building has been optimized for energy consumption. In recognition of their companies’ exemplary commitment to the environment, Michael and Ann Marie Keene from The John Roberts Company and Christel and Rob Nugent from Vega Press were presented with awards totaling EUR 50,000 by Stephan Plenz, Member of the Management Board responsible for Heidelberg Equipment. Both companies also received vouchers for Print Media Academy seminars. “The Heidelberg ECO Printing Award is an expression of our responsibility as market leader to drive forward sustainability throughout the industry. It seeks to motivate print shops to strengthen their own environmental commitment,” said Plenz. It also offers participating companies an excellent platform for sharing information and experiences at an international level, he added.

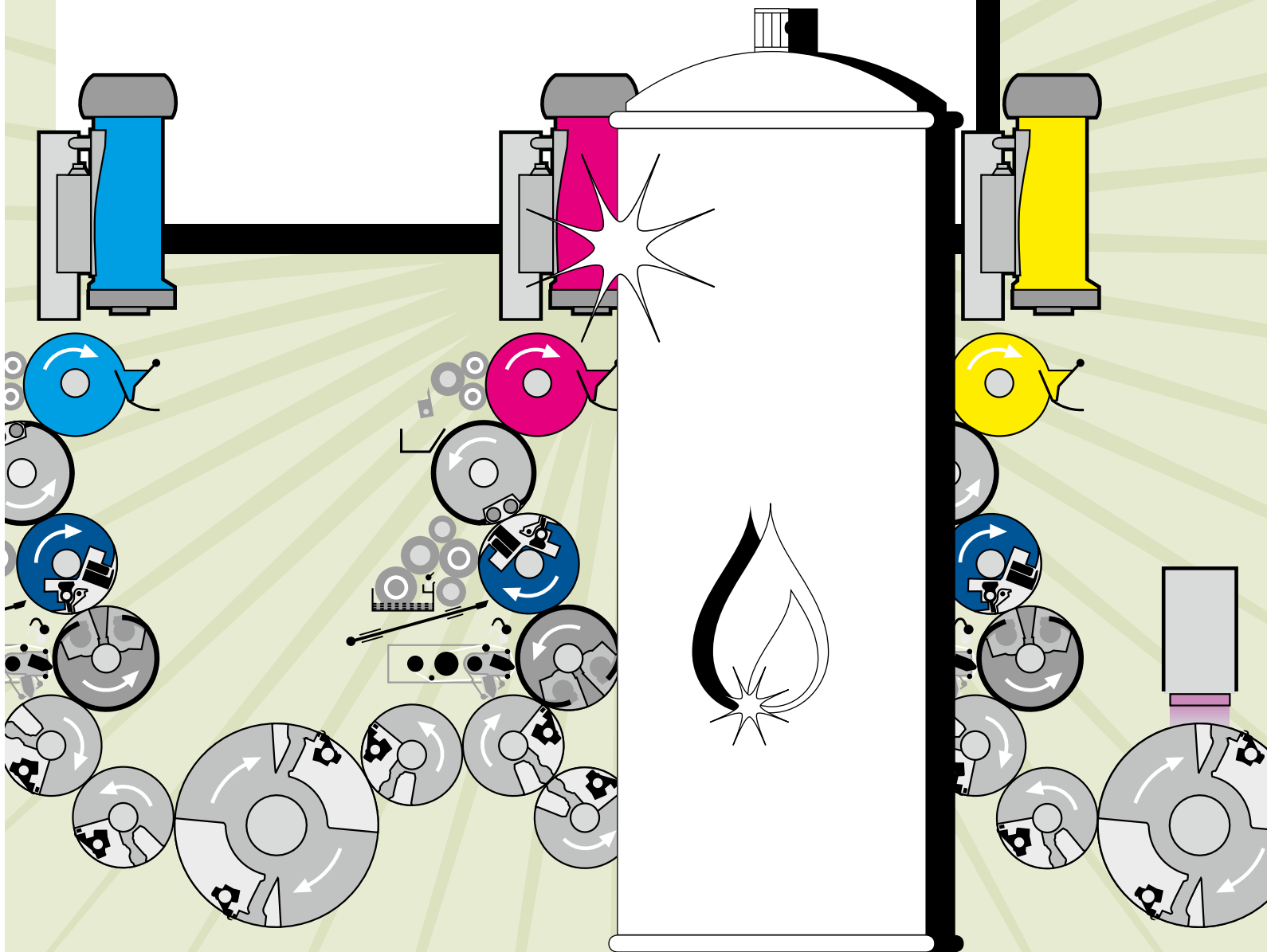
info // www.johnroberts.com or www.vega.com.au



Smiles all round – Stephan Plenz, Member of the Management Board responsible for Heidelberg Equipment (center), presented (from left) Christel and Rob Nugent of Vega Press, Australia, and Michael and Ann Marie Keene from The John Roberts Company in the U.S. with the Heidelberg ECO Printing Award.

DAZZLING RESULTS

FINISHING // Anyone who wants to really stand out on the market needs to offer something special. That's why the Speedmaster SM 52 with Anicolor short inking unit is now also available in a UV version. Print shops can therefore produce even very short runs profitably with unusual effects or materials.



For Paul van Marle, managing director of van Marle Grafische Bedrijven in Hengelo in the Netherlands, being different is vital for survival. “We need to constantly offer something special to ensure we can hold our own against our competitors in the face of a declining market and strong price pressures,” he says. And that “something special” is finding its way increasingly into short yet high-finish runs. This can be seen very clearly by taking a look in the pressroom, where some of the piles of elaborately designed plastic promotional folders or brochures with matt/gloss effects barely reach knee height. Runs of 100 to 300 sheets are not uncommon. Some production jobs require this amount of sheets just to reach the “OK” stage, but the Speedmaster SM 52 Anicolor with UV capability can handle short runs of this kind and still make a good profit. This is because van Marle is using the technology in a strategic move to position his print shop as offering more than conventional commercial jobs. “Complex coating and special effects are often critical in winning an order and, if the customer is satisfied with the results, this can open the door to further orders,” he explains.

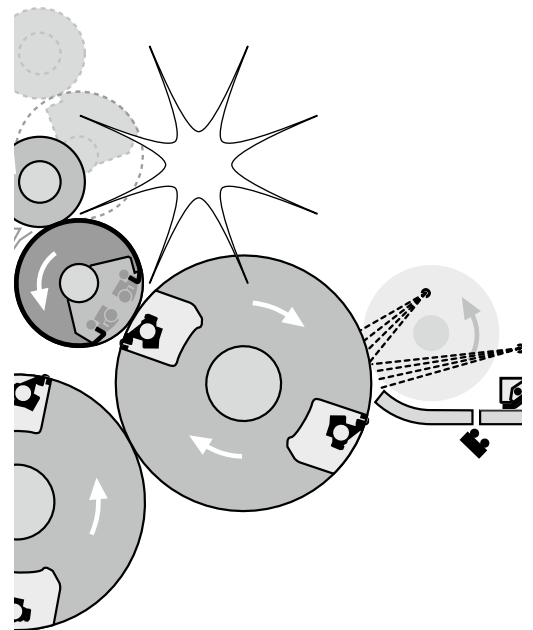
The van Marle Grafische Bedrijven print shop is not an isolated case. “Being different from the competitor around the corner or online is the number one challenge for many print shops,” explains Frank Süsser, product manager at Heidelberg. This is something he knows well from countless conversations with customers. A protective or glossy coating often isn’t enough for a print shop to make an impression. The trend is clearly moving toward more coating and special effects. Local car dealerships and hotels, for example, are increasingly using special effects to ensure they still get noticed by consumers and to prevent their brochures from being thrown away immediately.

Opening doors to new markets. The SM 52 Anicolor with UV technology was the next logical step in view of these developments. “For years, the conventional Anicolor press has been making a big contribution to boosting cost-effectiveness through its minimal paper waste, short makeready times and excellent color consistency,” Frank stresses. These benefits in combination with UV printing make the Speedmaster a gateway to new markets, as this now enables special effects and applications to be produced at a profit, even in small formats and short volumes. Print shops thus have a whole range of coatings and special effects at their disposal – from drip-off, high-gloss or spot coating and matt/gloss effects to lenticular printing or other special applications on absorbent and non-absorbent materials such as plastic or metalized paper.

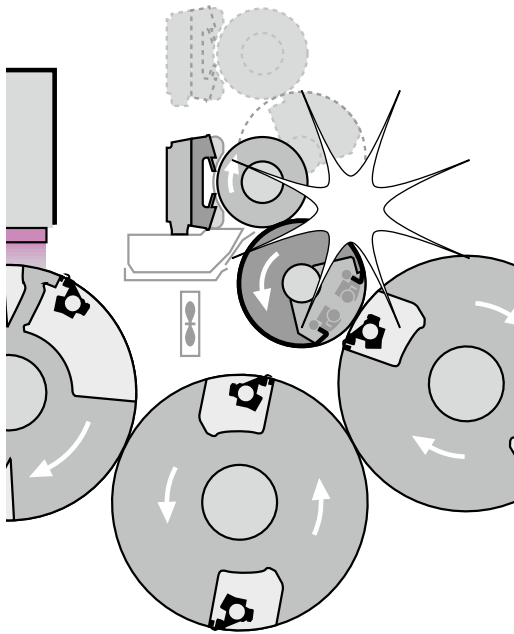
The press can be configured flexibly in line with the job structure. Its range extends from four to 10 colors plus coating and sheet reversal. The substrate can be extremely thick – up to 0.024 inches (0.6 millimeters). This ensures thick PP, PE and vinyl foils can also be printed. “Users can look forward to further potential for growth in plastics printing in particular by filling high-margin market niches,” explains Frank. For example, one customer produces light-proof plastic plant pins for international users. And van Marle Grafische Bedrijven is looking to add a further string to its bow by printing business and smartcards on the SM 52 Anicolor UV.

Less plastic, higher margins. The Anicolor short inking unit is particularly effective for high-cost materials such as plastic foil. The temperature-controlled screen roller ensures that exactly the right amount of ink is applied to the sheet and that this is done so evenly that paper waste is decreased dramatically. While several hundred sheets ▶

MINIMUM WASTE, SHORT MAKEREADY TIMES AND EXCEPTIONAL COLOR CONSISTENCY COMBINED WITH UV PRINTING – ALL MAKE THE SPEEDMASTER SM 52 ANICOLOR A TICKET TO NEW MARKETS.



THE SCREEN ROLLER WITH TEMPERATURE CONTROL APPLIES INK TO THE SHEET WITH EXCEPTIONAL ACCURACY AND METERING PRECISION.



are normally needed for print proofing on conventional presses, 40 are usually sufficient to get to the OK sheet thanks to Anicolor. “With a sheet price of 50 cents, the Anicolor short inking unit enables savings of up to 109 U.S. dollars (80 euros) per job,” says Frank. Extrapolated over a year, the savings for 1,000 or more jobs can run into five or six figures.

A further advantage of Anicolor technology is the consistently high print quality that does not depend on the run volume or the level of ink consumption. This is because a single inking roller provides each printing element on the plate with the precise volume of ink required and does so zonelessly across the entire sheet. Ink density is controlled using a high-performance temperature control system.

However, as heat doesn’t feature as a control parameter in conventional UV printing, a specific Saphira ink has been specially developed. In contrast to conventional UV inks, this responds to changes in temperature while also scoring highly with UV-specific features such as outstanding color brilliance and fast job processing. In conventional commercial printing, too, substrates that are difficult to dry, such as uncoated paper, can thus be ready for finishing as soon as they emerge at the delivery.

Profitable for the entire range. These benefits also make using the SM 52 Anicolor UV attractive for print shops where somewhat less than half of jobs are given a special coating or are printed on non-absorbent materials. “Profitability analyses show it’s worth considering the UV version as soon as 40 percent of jobs require special coating,” says Frank. UV inks harden immediately and print shops therefore save having to apply dispersion coating and subsequent drying. This productivity boost also benefits conventional commercial printing, as van Marle

confirms: “With the SM 52 Anicolor UV, we achieve almost 40 percent higher throughput than on a conventional press, thanks to very short drying times and greater press performance.”

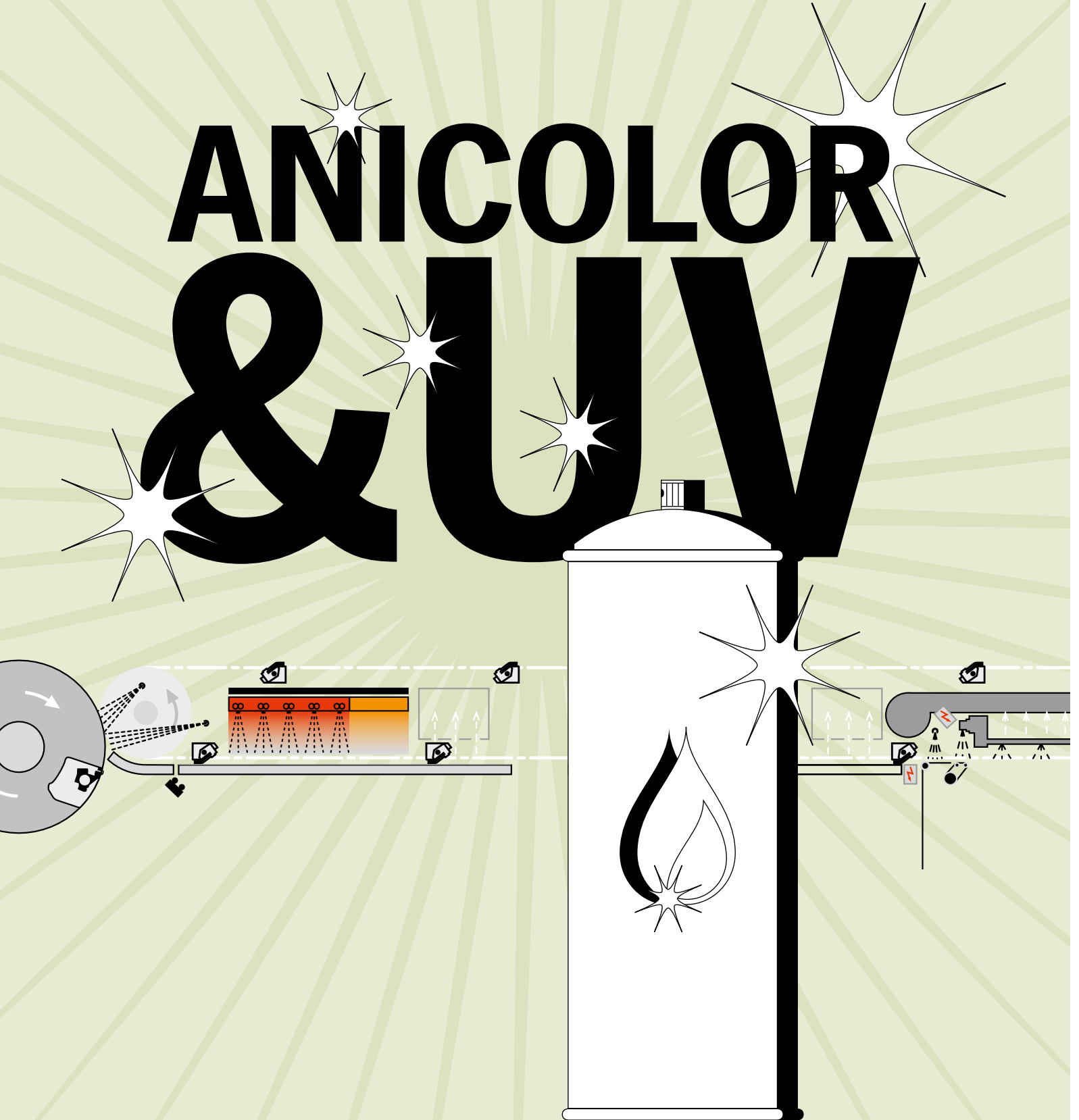
Van Marle Grafische Bedrijven uses its SM 52 Anicolor UV for virtually its entire product portfolio to fully harness its benefits. Commercial jobs such as brochures, catalogs, covers, small packaging, folders and plastic cards are produced in runs of 100 to 50,000 sheets on paper, cardboard or plastic at a speed of 15,000 sheets an hour. Finishing is performed in-house. “As practically no drying times are involved thanks to the UV technology, we can carry out cutting, folding, stitching or diecutting immediately after printing,” says van Marle. A job is usually processed within four working days. The industry trend toward ever shorter delivery times is therefore no problem for him. “The relatively expensive UV equipment definitely pays off for us,” he emphasizes. Even if some jobs just cover costs, van Marle is fully aware he benefits from a significant strategic advantage: “With the SM 52 Anicolor UV, we offer that certain something while maintaining consistently high quality. And that’s a worthwhile investment in profitable long-term customer relationships!” ■

Further information

www.heidelberg.com/en/SM52_Anicolor

ANICOLOR

& UV





Saphira Eco consumables – designed with the environment in mind. The products in the Saphira Eco line are the ideal choice if you are not prepared to compromise on quality when using environmentally friendly consumables. They are made from renewable or recyclable raw materials, which means they are very kind on the environment. As a result, Saphira Eco combines top quality print results and maximum cost-effectiveness with resource friendly production. www.heidelberg.com/saphira-eco





COATING, PERFECTING, COATING

FINISHING // Print buyers and designers are seeking to set their print products apart from competitors by employing increasingly complex finishing techniques. At the same time, print shops also have to deliver greater flexibility and shorter delivery times. The new press technology from Heidelberg for medium and large formats provides the perfect answer to these requirements. The Speedmaster XL 75 LPL and XL 105 LPL coat both sides of the sheet in a single pass.

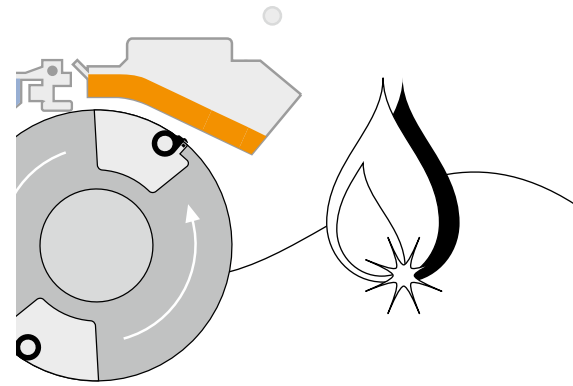
Sometimes dreams come true faster than expected. This was certainly the case for Don Chew, President of K&D Graphics in Orange County, United States. Some time before drupa 2008, Chew showed a drawing he had made to some Heidelberg employees. He explained that this was his dream press. In the future, he hoped, among other things, to print packaging for the premium segment and apply a UV coating to both sides. The drawing showed a press that not only reversed the sheets, but also coated them on both sides in a single pass. To the great surprise of the K&D President, one of the Heidelberg experts said: “We’re already working on it.” A short time later, he was able to take the first Speedmaster XL 105 LPL into operation. Measuring 118 feet (36 m) and comprising 16 units, this was the Heidelberg answer to Don Chew’s wishes.

Complex processes, complex project. Of course, presses equipped with coating units and perfecting devices are nothing new. What then is so special about LPL technology, which enables coating before and after the sheet reversal stage? “Heidelberg already offered all the individual components,” says Axel Koppey from Product Marketing for the 27.56×39.37 inches (70×100 cm) format. “The skill was to combine these components and, above all, optimize how they worked together.” However, it was not just a question of integrating a coating unit with a dryer and then getting back to business as usual. There was far more to it than that. The Heidelberg engineers were faced with the challenge of combining press technology with application technology and delivering optimum print results.

“It was a very complex project involving a large number of development areas,” adds Koppey. It required a whole host of adjustments, e.g. for control and regulation of the dryers and the air settings for the sheet travel. LPL is not supported by all Heidelberg models. This complex combination of sheet reversal and doublesided coating is only possible thanks to the cutting-edge technology of the Speedmaster XL 105.

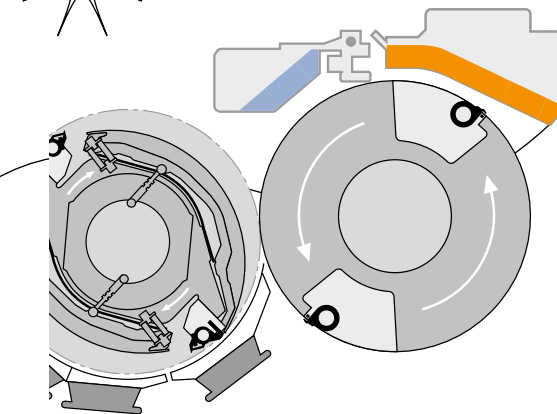
Key factors – dryers and coating. The dryer technology plays a key role in this process. Highly effective dryer technology is required to handle up to 15,000 sheets per hour and to ensure that the coated sheets are completely dry shortly after the reversal stage. Precise placement of the dryers in the press is key. How should they be set to achieve optimum results? Where should infrared technology be used and where hot-air? All the elements must interact perfectly to ensure that the sheets are dry when they are deposited in the delivery – even at maximum press speed, with high ink levels and when faced with demanding coating requirements.

And it is not just the dryer technology that has to meet extremely tough requirements for doublesided coating in a single pass. The same applies to the inks and coatings, which must be perfectly coordinated. That is why Heidelberg conducted an exhaustive series of tests to approve inks and develop coatings to meet these precise requirements. They are sold under the Saphira brand, which provides printers with products that have undergone extensive testing and have been designed specifically for use in Heidelberg equipment. The very fast-drying coating is an in-house development of Heidelberg subsidiary Hi-Tech Coatings, which has production sites in the United ▶



PRINT SHEETS NOW ONLY HAVE TO PASS THROUGH THE PRESS ONCE INSTEAD OF TWICE. PRODUCTION TIMES ARE HALVED, THUS DELIVERING A CONSIDERABLE BOOST TO PRODUCTIVITY.

LPL OFFERS A FAR GREATER NUMBER OF FINISHING OPTIONS THAN MACHINES WITH A CONVENTIONAL CONFIGURATION. FOR EXAMPLE, GLOSS COATING ON THE FRONT AND MATT COATING ON THE REVERSE, OR FULL-AREA COATING ON THE FRONT AND SPOT COATING ON THE REVERSE.



Kingdom and the Netherlands. Heidelberg offers two Performance Kits for LPL technology, one for gloss coating and one for semimatt.

Variety of finishing effects. There is a clear trend towards double-sided coating in both high-quality commercial printing and packaging printing applications, including food packaging. Coating units before and after sheet reversal offer a far greater number of finishing options than machines with a conventional configuration. For example, gloss coating on the front and matt coating on the reverse, or full-area coating on the front and spot coating on the reverse. They also enable the use of special effects and application of functional coatings, such as barrier coatings. Duo applications are possible, too, for example applying opaque white to aluminized paper using the coating unit, followed by over-printing and coating.

Anyone printing commercial and packaging products in long runs will quickly appreciate the benefits of LPL technology. Print sheets now only have to pass through the press once instead of twice. Production times are halved, thus delivering a considerable boost to productivity. This eliminates long waiting and drying times as well as the associated intermediate storage of semi-finished products. This way, printed sheets can be transferred directly to postpress without the usual waiting times. When clients visit the print shop to okay a proof, they can grant approval on-site much faster than before due to the technology.

Almost any configuration is possible. In times of increasing competition and ever louder calls from print buyers for shorter delivery times for print products, this technology delivers a clear competitive edge. What's more, optimized dryer settings also cut the energy consumption of the press. This in turn cuts operating costs and is kind on the environment.

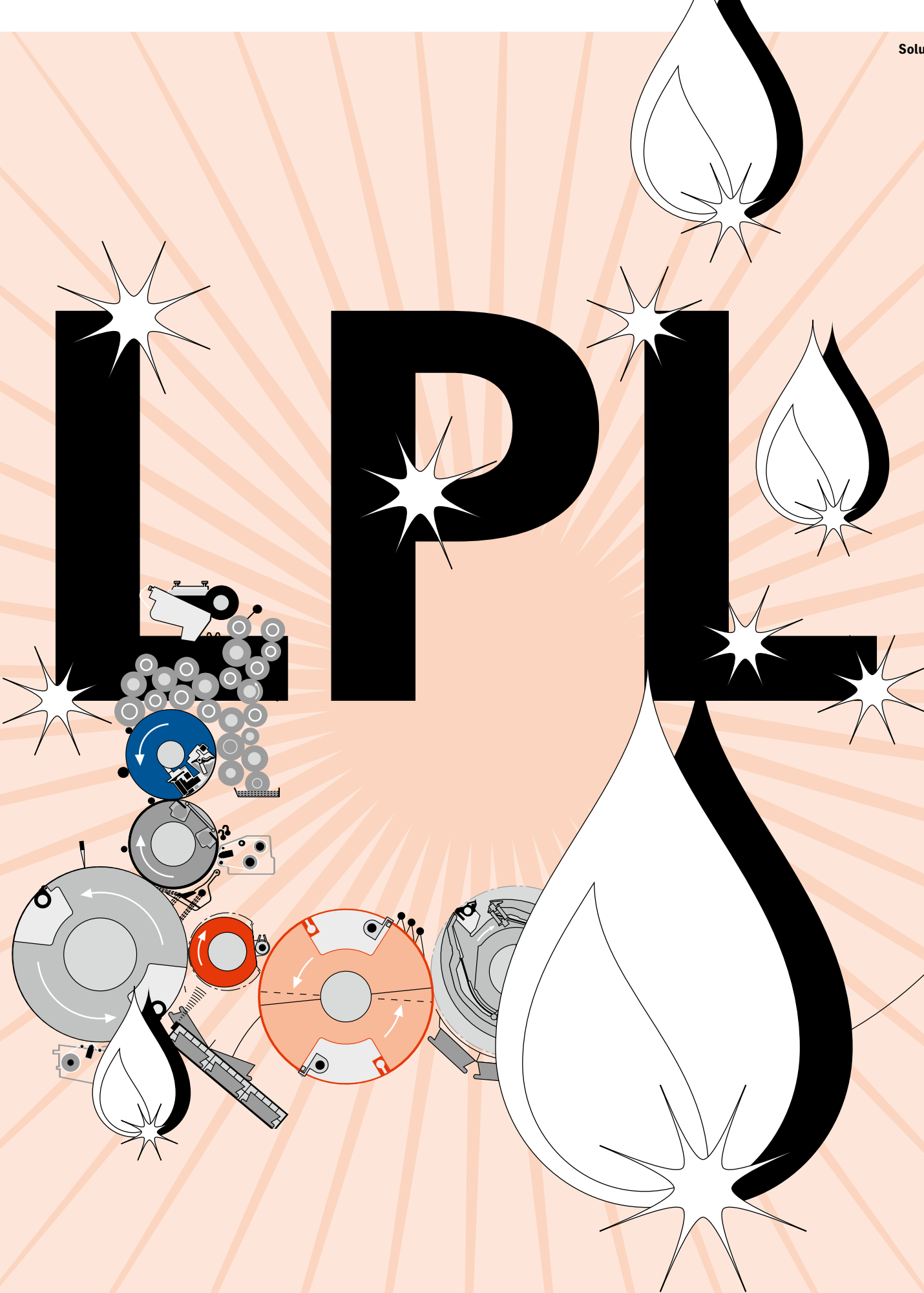
Around half a dozen presses worldwide are currently equipped with LPL technology from Heidelberg – all tailored to individual customer requirements. The modular design of the Speedmaster XL 105 paves the way for

a whole range of possibilities for customized configurations. The current “record holder” is a machine equipped with a total of 16 units, measuring 118 feet (36 m) and weighing 154 tons (140 metric tons). “We carefully check the feasibility of every customer requirement,” says Koppey.

The LPL technology attracts considerable interest during practical demonstrations at the production site in Wiesloch-Walldorf, Germany. “Customers are always amazed at how quickly the sheets, printed and coated on both sides, are transferred directly from the press to postpress,” remarks Koppey. However, he adds the caveat: “This configuration only makes economic sense for print shops with a sufficiently high number of orders for double-sided coating.” He states that the press is probably best run in multi-shift operation, with double-sided coating applied to most of the sheets it prints. “Customers who are interested in LPL technology but are unsure whether it will pay off should contact our Business Consulting section. The team will analyze the job makeup and recommend the machine best suited to the customer's requirements.” After all, adds Koppey, this is one of the core areas of Heidelberg expertise – not just selling products but offering solutions that deliver long-term benefits. ■

Further Information

www.heidelberg.com/en/LPL





The Combination Lock for Products – 1-TAG

SECURITY SOLUTIONS // The struggle against product and brand piracy is often seen as something of a lost cause. No sooner has a new security tool been introduced than the pirates have found a way around it. However, Heidelberg has now taken a significant step forward in security technology in the form of 1-TAG – a combination of random physical processes and cryptographic signatures that are inseparably linked.

French brand-name perfume at a knock-down price soon catches the eye. Designer Italian shades and sneakers from a German sports brand also seem far cheaper than they usually are. But the potential buyer feels somewhat uneasy. “Genuine or fake?” she asks herself. A problem that was once limited to marketplaces in cities such as Istanbul and Hong Kong is becoming increasingly prevalent in more conventional retail outlets.

Globalization has caused product piracy to become a curse for manufacturers of branded goods. Experts estimate that products with a value of some 1 trillion dollars will be counterfeited worldwide this year – that’s one thousand billion dollars, a one followed by twelve zeros. And the trend is set to keep on growing. According to the EU, approximately 10 percent of global trade is generated through counterfeiting. The most popular targets for counterfeiters are high-quality branded textiles and footwear, audiovisual equipment and consumer electronics. But no product is truly safe from counterfeiting, not even beverages, household chemicals or capital goods. The German Engineering Federation (VDMA) has reported that around two thirds of all companies that produce capital goods are affected by the problem of illegal copies. Although the counterfeiting of watches, cosmetics and textiles may be very annoying for many of those affected, this is nothing

compared to the very real dangers it can pose in some cases. For example, a fake electrical device may not be properly insulated or – far worse – pirated drugs may have been slapped together and adulterated in someone’s backyard.

Two processes in one. When taking on the problem of piracy, manufacturers are often fighting a losing battle. As soon as a new means of verifying authenticity – such as a hologram, for example – has been introduced, the pirates copy that, too. However, all this is set to change when a new technology hits the market. After several years of development work, Heidelberg has launched a system that provides exceptionally effective protection against fake products. 1-TAG – pronounced “One Tag” – is a combination of two processes in a single label, or tag. The new system moves the focus away from security firms and customs officers in identifying pirated goods. Instead, it will be consumers themselves who take the lead role in sorting out the fakes from the genuine products.

One after the other. During the first stage of 1-TAG production, thin copper threads just a few millimeters long drop from a machine onto a label, forming a completely random pattern – rather like bunching together spaghetti then letting go and allowing the pieces to fall. Around a dozen of these wire

threads are needed to produce the pattern. The patterns are then laminated, in other words a coating is applied to fix them in place. The next step involves reading this random pattern with a camera, “translating” it into coordinates and then matching it with product-specific data and a cryptographic signature. A Linoprint printer is then used to apply the resulting data record to the label, located to the right of the copper threads, as a QR code. QR code stands for quick response code – the square symbols made up of black and white dots that are becoming an increasingly common sight on posters and the online tickets of many rail companies, for example.

The tactile random pattern of copper threads and the product information are inseparably linked by the signature. The signature is created using a secret code developed by Heidelberg, but anyone can check it electronically using a public code. Unlike a barcode or hologram, the three-dimensional copper threads cannot be accurately copied. Consequently, random pattern, code and product information are brought together to form one tamper-proof unit. This creates a unique identity, similar to a fingerprint, for the product or its packaging.

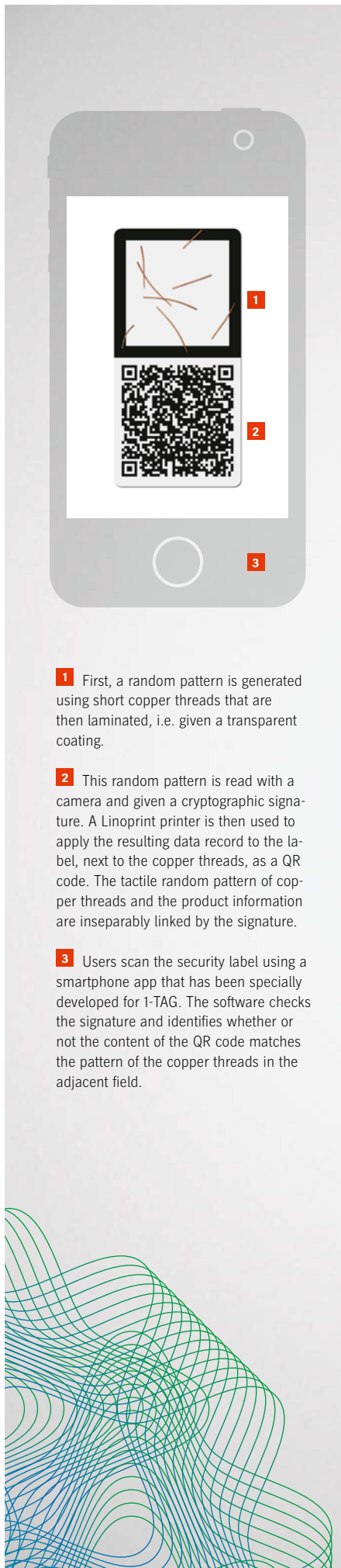
Checking by smartphone. The next stage in the process – checking that a product is genuine – is easy. “Some 4 billion people around the world use a cell phone,” explains Alan ▶

Wymer, Senior Product Manager Linoprotect and the man responsible for 1-TAG product marketing at Heidelberg. “On a scale like that, it is the consumers themselves who are the best remedy for product piracy.” More and more cell phone users own a smartphone such as the Apple iPhone or one of its Android-based counterparts. And the vast majority of today’s cell phones are also equipped with high-resolution cameras as standard.

The rest is routine technology. End users simply launch an app – mobile software that has been specially developed for 1-TAG – on their smartphones. The app then scans the security label. The software checks the signature and immediately identifies whether or not the content of the QR code matches the pattern of the copper threads in the adjacent field. The relevant apps can be downloaded free of charge from the App Store or Android Market. Since the entire security check takes place on the cell phone, there is no need to connect to a database via a mobile network. As a result, the app can be used at any time, at any location and at no cost. This is the first time that cutting-edge technology has been used to integrate customers themselves directly into the fight against counterfeiting – quickly, reliably and easily.

All security-relevant processes take place at Heidelberg. This new technology also opens up a number of additional benefits. For example, the app does more than simply show whether a product is genuine or fake. It also provides information on the corresponding brand, product name and packaging size. Additional data can also be incorporated, such as expiration dates and batch numbers. Using Web links, 1-TAG can also direct users to the product or manufacturer website, thus opening up new ways for brand-name manufacturers to reach their customer base.

Another advantage is that 1-TAG prevents misuse by contract manufacturers and packaging companies tasked with conducting



1 First, a random pattern is generated using short copper threads that are then laminated, i.e. given a transparent coating.

2 This random pattern is read with a camera and given a cryptographic signature. A Linoprint printer is then used to apply the resulting data record to the label, next to the copper threads, as a QR code. The tactile random pattern of copper threads and the product information are inseparably linked by the signature.

3 Users scan the security label using a smartphone app that has been specially developed for 1-TAG. The software checks the signature and identifies whether or not the content of the QR code matches the pattern of the copper threads in the adjacent field.

logistics operations. For example, before giving a contract to a third party, companies can specify how many items the packaging firm is permitted to label and what product information is to be encoded. This provides an effective means of heading off phenomena such as the “fourth shift” when companies manufacture extra products on their own account without proper authorization. The risk that genuine security labels will be stolen is also minimized by the fact that the codes are generated right alongside the production equipment. As a result, 1-TAG is not aimed primarily at print shops, but rather at manufacturers of branded goods and their contract manufacturers and packaging companies, says Wymer.

“Every 1-TAG security label is as unique as a fingerprint. The protection for the cryptographic processes involved in 1-TAG is on par with the latest and most secure Internet banking solutions,” states Bernd Vosseler, the Project Manager in charge of 1-TAG. The system is made particularly secure by the fact that all security-relevant processes are controlled solely by Heidelberg. This means that, even if errors occur at the manufacturer of the branded goods or the contract manufacturer, there are no security loopholes that could give potential counterfeiters a route in.

A number of applications are already planned for pilot projects and the market for effective protection against product piracy is huge. In Germany alone, the cost of product and brand piracy for the economy has been estimated at over 40 billion U.S. dollars (around 30 b. euros) per year. Yet out of the total volumes generated by counterfeit products, less than 1 percent is invested in security measures. “There’s still a great deal of potential,” says Wymer. ■

Further Information

www.heidelberg.com/en/1Tag

**FOCUS
INNOVATION**

Spectral Color Measurement for Beginners – Prinect Easy Control

MEASURE AND REGULATE COLORS ON THE PRESS // Minimal training requirements, great ease of use and an attractive price. The Prinect Easy Control color measuring system offers all the above – without compromising on quality. Because it is fully integrated into the Prinect Press Center control station, the system does not take up any extra space in the pressroom and can be operated conveniently via the existing touchscreen monitor.

Innovations ... //

Prinect Easy Control is available for Speedmaster SM 52 and SM 74 presses with two to six inking units and takes measurements using quality control strips. Press operators get a device that combines the familiar handling of a densitometer with the advantages of a spectrophotometer. Operating it couldn't be easier – at the start of a job, the measuring head is manually positioned on the white of the paper, next to the quality control strip. Once the start button has been pressed, Prinect Easy Control automatically searches for the edge of the paper, identifies the quality control strip that is being used and travels over it. Immediately afterwards, the first measuring results are displayed on the monitor and, once approved by the press operator, the ink zones are automatically adjusted.

Advantages ... //

Spot colors can be regulated just as accurately as BCMY. The color archive stores all CIE Lab values taken from samples or color swatches. This helps deliver consistent and reproducible coloring, which is an invaluable advantage when working with company logos and packaging. The quality control strip can be positioned anywhere between the gripper margin and the rear edge of the sheet, enabling optimum paper utilization. A laser beam makes it easier to correctly position the measuring head over the center of the quality control strip, thus preventing incorrect measurements. And with a measuring speed of 150 mm per second, the quality control strip is read in full in just a few seconds.

Ingenious enhancements ... //

The better the color presettings on a press, the faster the operator can achieve the desired inking with the colorimeter. Prinect Pressroom Manager ensures the ink zone apertures and ink fountain roller sweep are correct. The Color Assistant module adjusts the quantity of ink required for the current conditions at the touch of a button. ■

Saphira

Truly Effective

CONSUMABLES // Why would a print shop even consider changing its consumables supplier? After all, the press operators have come to know the quality of their inks, coatings and blankets inside out. Having said that there are a number of good reasons to make a change. Four printing specialists from three countries tell us why they decided to switch to Saphira consumables from Heidelberg.

Saphira

Rollers



**MEINDERS & ELSTERMANN GMBH & CO. KG,
BELM, GERMANY**
ARTUR BENZ, TECHNICAL MANAGER OFFSET PRODUCTION



Meinders & Elstermann is a high-end business with six presses and 41 printing units that handles up to 18,000 sheets an hour in three shifts. The 140 employees of this mid-sized commercial print shop process some 6,613 tons (6,000 metric tons) of paper a year. Production is mainly in 3B format and ranges from lavishly finished catalogs and brochures to flyers, business stationery and single-color price lists.

Artur Benz is the technical manager for offset production. He is responsible for ensuring that all six presses from Heidelberg run smoothly around the clock and deliver maximum quality. Yet this is exactly where problems occurred time and again a good year ago. "In particular, we regularly experienced quality deviations and coordination problems for dual-coating applications on our Speedmaster XL 105 six-color press," says Benz. At the time, Meinders & Elstermann was using consumables from various manufacturers. "The products in themselves were perfectly okay. But when there were problems and a supplier changed something in the coating, inks or primer, suddenly the adhesion or gloss no longer worked. The process simply wasn't stable." To get these problems under control, Benz decided to try Saphira con-

sumables. "We carried out a production test using low-wax inks, primer, UV gloss coating, Spot UV 115 coating plate and Saphira washup rolls, and all our problems were solved instantly. This in itself was extremely good."

However, another factor was crucial for Benz in his decision to switch. "We can now have a single supplier for the entire process. This is particularly useful for dual-coating applications, where maximum quality is critical," he explains. "This means that, if problems occur, I have only one contact, who can then provide me with reliable and prompt support. I benefit from experienced service staff who know not only the Saphira products but also the presses and how all the components interact right down to the last detail. They either resolve the problem on-site or tell me what needs to be done with the ventilation or dryer – and that gets results!"

Benz uses only Saphira consumables on the Speedmaster SM 52 five-color press with Anicolor. These include blankets and HKS, Pantone and other inks. "This is precisely where we benefit from fully matched products that harmonize perfectly with Anicolor technology and that we can rely on completely."



**PHILLIPS PRINTING,
NASHVILLE (TENNESSEE), USA**
JOHN HEARN, OPERATIONS MANAGER



Phillips Printing is a relatively small print shop in Nashville in the southeastern United States. Yet, with a workforce of nine employees and four managers from three different generations, it covers the entire range of services you would expect of a cutting-edge media service provider. The company's portfolio embraces everything from consulting and design to printing, storage and the inserting and dispatch of direct mail. It prints primarily marketing materials such as brochures, flyers, posters and newsletters, as well as operating manuals, catalogs and calendars. On average, the company prints runs of 1,000 to 30,000 sheets on its two presses – a Speedmaster SM 102 with six inking units and a Printmaster QM 46 with two inking units.

"Like any other print shop, we are constantly working against rising price pressures," explains Operations Manager John Hearn. "We can only overcome these pressures by getting two things right – productivity and quality." To improve both, Hearn decided a good two years ago to replace nearly all of the consumables previously used by the print

shop with Saphira products. Hearn himself carried out extensive testing before the switchover, firstly on Pantone inks in conjunction with Saphira dampening solution from Heidelberg and then on blankets and chemical-free, non-ablative CtP printing plates.

"The results were impressive all round," says Hearn. "Both ink and dampening solution are very stable, produce a clean, sharp print image and respond very quickly to new machine settings."

The Operations Manager is particularly pleased with how Saphira consumables have helped to drive up productivity along the entire process chain. "Generally, we're able to get around 30 percent more work off the press on short runs. This rises to 100 percent more when doing one or two long runs during the day, because our production can run at higher speeds with the same high quality results," explains Hearn, adding: "Print jobs make or lose money based on how productively and efficiently the imagesetter and press run. Since we began using Saphira products, we have made huge progress because we have been able to use our time much more productively."

**MEDIA COLOGNE KOMMUNIKATIONSMEDIEN GMBH,
HÜRTH, GERMANY**
WOLFGANG LEY, PRINT CENTER MANAGER



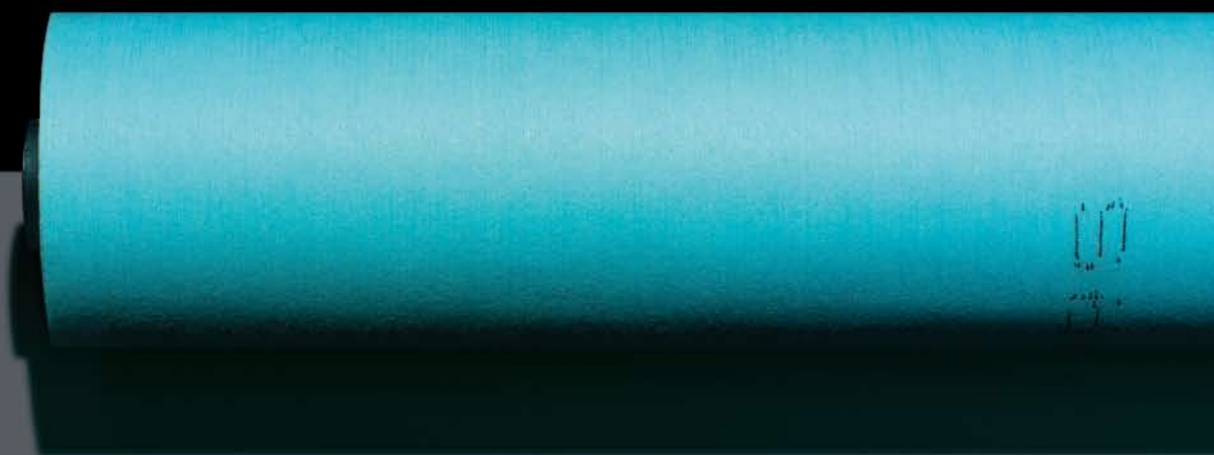
As an agency, media and printing company and logistics expert, Media Cologne has many facets and this makes it highly successful. The company recently invested 12 million U.S. dollars (9 m. euros) in building a new print center. The first floor alone offers sufficient room on 21,527 square feet (2,000 sq. m.) for all the presses, including three Speedmaster XL 105 units and the entire postpress department. It also has enough space for further growth.

As a member of the management team, Wolfgang Ley is responsible for production and service. Ask him about Media Cologne's service portfolio and this is his answer: "It's as though we stage a media orchestra for our customers complete with all the instruments." Someone who comes out with a statement like this is unlikely to tolerate any form of disharmony or discord. The commitment to quality demonstrated by the company and its 130 employees, 35 of whom work in the new building's pressroom, is equally high. "Quality is a given for our customers," says Ley. "But not for us, as we have to deliver it day after day. And every printer knows this is hard work that requires a great deal of care and

skill." And the right consumables, too, of course. Ley has now made his choice – Saphira: "We buy blankets, inks, dampening solution additives, primers and dispersion coatings from the same manufacturer that we buy our presses from – Heidelberg. Why's that? Because I can rely on all components being perfectly coordinated with each other. And because it helps me in resolving problems if I have everything from a single source."

In the past, Ley says, three specialists from three companies were present in the pressroom if there was a problem in production. "None of them was prepared to admit that the fault lay with their product. But I'm not at all interested in who or what causes a problem. I just want it to be solved quickly." If he needs help today, a single call is enough, he says. "I then have a skilled specialist on the other end of the line who knows the whole chain. This helps me enormously because it delivers results fast."

As well as the high availability of all Saphira products, there's yet another reason for Ley's switch. "Our printers like working with Saphira since it's easy to handle. This may be subjective but the staff feels they're in excellent hands with Heidelberg, and that also plays a key role."



**NEW ERA PRESS PTE LTD,
KALLANG, SINGAPORE**
KEN WOON, PRODUCTION MANAGER

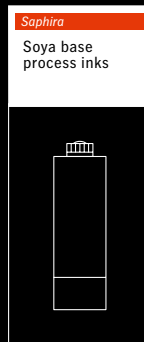


New Era Press is a small but impressive commercial print shop in southern Singapore. Established by five founders in 2000, the company has developed to become a print media service provider with both local and a growing number of overseas customers. To ensure it was properly equipped to cope with this continuous growth, the company invested in a Speedmaster SM 74 four-color in 2004. Four years and a few regular customers later, New Era Press took its second press from Heidelberg into service – a Speedmaster CD 102 four-color.

“We have strong links with Heidelberg because we know we can always rely on the technology and service,” explains Production Manager Ken Woon. “That’s why we didn’t really hesitate when Heidelberg suggested we use Saphira products in 2004.” Since then, New Era Press has been using exclusively Saphira products, including printing plates, inks, rollers, blankets and washup and dampening solutions.

In mid-2011, supported by the local Heidelberg service team, the Production Manager decided to take part in a series of tests on soya-based Saphira process inks. “The results were excellent and exceeded my expectations,” says Woon. “The inks dry very quickly, which is a real benefit for us, particularly on larger jobs with between 30,000 and 50,000 impressions. It means we can work at a high production speed, need less powder and can get on with further processing more quickly, which of course also has a positive impact on unit costs.”

However, Woon sees the product properties as just one in a series of features that he believes make Saphira attractive. “Heidelberg knows exactly what we need and never keeps us waiting – whether we want consumables or service support. For us, it’s the whole package that makes a difference – and it works. That is why I can recommend to any printer that they should see the benefits of using Saphira products for themselves.”





ENVIRONMENTAL PROTECTION FROM START TO FINISH SAPHIRA ECO

Consumables can have a hugely adverse effect on the working climate and environmental performance of a print shop – some more than others. In mid-2011, Heidelberg launched a new product line developed specifically for customers who want to run their business along sound environmental lines without compromising on quality – Saphira Eco.

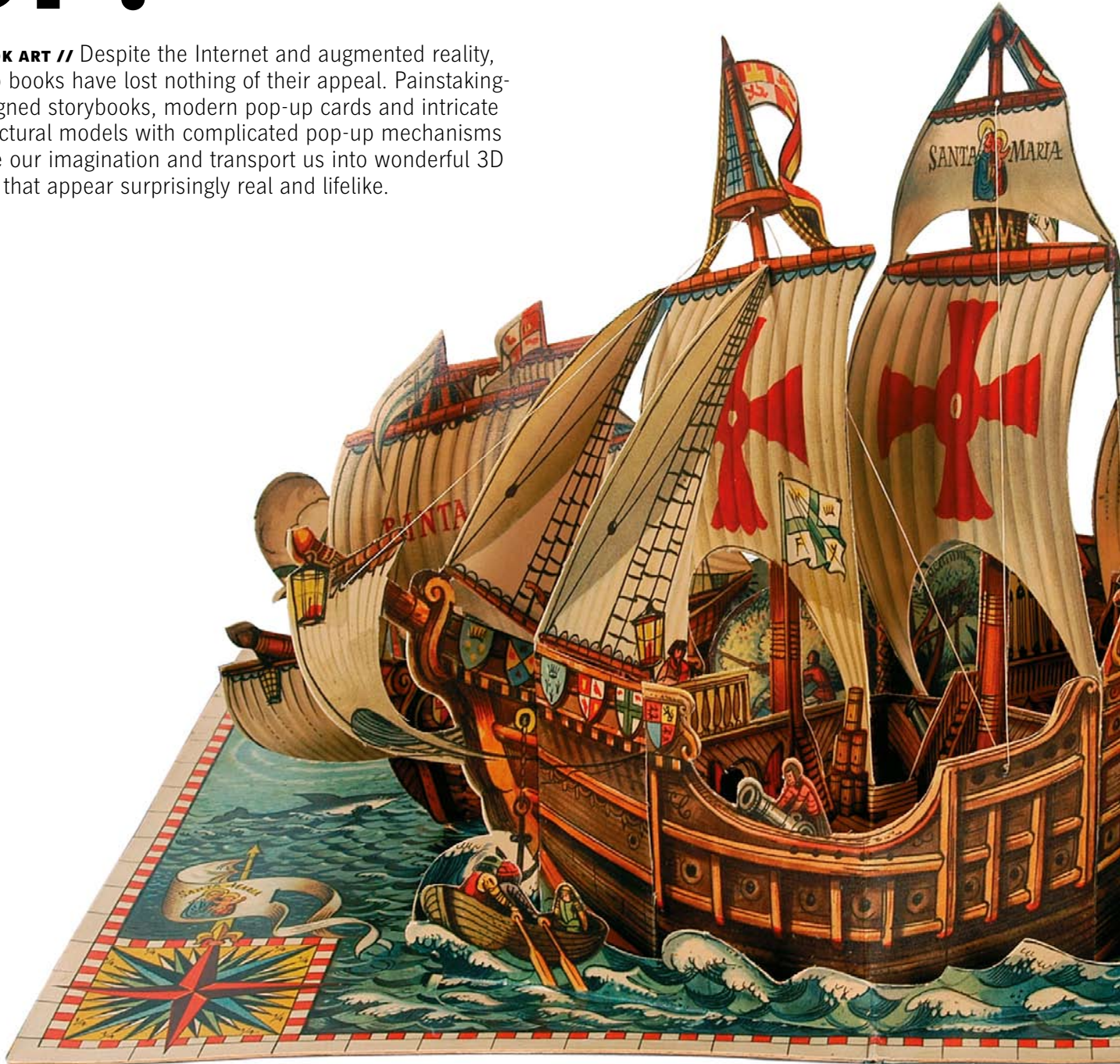
The consumables in this range cover the entire value-added chain of print shop operations. They satisfy the highest industry standards and statutory requirements, in some cases far exceeding these. Heidelberg achieved this by ensuring that development work on all the products in the Saphira Eco line focused on criteria that already serve as the basis for existing environmental certifications in the print media industry. This enabled the products to set the highest benchmarks throughout.

The outcome is a range of consumables that come with the most rigorous proof of environmental compatibility currently available. Saphira Eco products have been developed according to three basic principles. Firstly, products carrying the Saphira Eco mark use renewable raw materials instead of mineral and synthetic ingredients wherever possible. Secondly, where materials cannot be substituted at present, any potential effects caused by harmful materials are kept to a minimum through the application of strict limit values. And, thirdly, users can offset their CO₂ footprint by buying emissions certificates.

Heidelberg is marketing the new line worldwide. At present, Saphira Eco products include CtP printing plates, inks, coatings, adhesives and washup and dampening solutions. The range will be gradually extended. ■

POP UP!

3D BOOK ART // Despite the Internet and augmented reality, pop-up books have lost nothing of their appeal. Painstakingly designed storybooks, modern pop-up cards and intricate architectural models with complicated pop-up mechanisms still fire our imagination and transport us into wonderful 3D worlds that appear surprisingly real and lifelike.



Three-dimensional book art from Vojtěch Kubašta: "How Columbus Discovered America" from the 1960s (main image), "The day of the Bison Hunt" from 1962 (top right) and "Tip + Top + Tap als Seefahrer" from 1965 (bottom right)

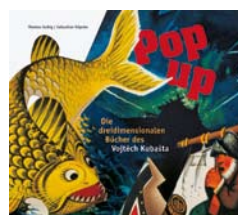


VOJTĚCH KUBAŠTA //
THE POP-UP PIONEER
FROM PRAGUE

The Czech book artist and illustrator was one of the world's most inventive and influential pop-up artists. His imaginative works still set standards in their field.

Vojtěch Kubašta (1914-1992) was a real giant in the small world of 3D books. It is thanks to his inventiveness that the tradition of pop-up book art, which dates back over 800 years, has survived right up to the present day.

When Kubašta offered his first pop-up book to the Prague-based publisher ARTIA in 1956, 3D books were mainly popular in the United States. In Europe, on the other hand, such books had largely disappeared after the Second World War. Kubašta's first major series of books for ARTIA reproduced the fairytales of the Brothers Grimm and Hans Christian Andersen. They were highly successful and Kubašta quickly gained a reputation as a master of the pop-up. With elaborate folding techniques and colorful illustrations, he conjured up 3D scenes between the covers of his books that still astound today. His works gave new life to the art of animated books – which had been largely forgotten in Europe – and were unprecedented in terms of both quality and quantity. For over three decades, Kubašta worked on storybooks, large panoramatic formats, film adaptations and books for younger readers. The "White" series in 1974 was to be his final work. Kubašta's books were translated into 37 languages and licensed worldwide in the millions.



Book tip:

Pop up – Die dreidimensionalen Bücher des Vojtěch Kubašta [Pop-up – The 3D Books of Vojtěch Kubašta], Berlin 2003. With more than 310 color illustrations spread over 96 pages, Thomas Gubig and Sebastian Köpcke have included virtually all the Czech book artist's pop-up books in a single catalog.



“IT STARTS TO MAKE SENSE WHEN YOU OPEN IT” //
FIVE QUESTIONS FOR PAPER DESIGNER AND POP-UP ARTIST PETER DAHMEN.

Mr. Dahmen, you design pop-up sculptures. How did you get into that?

Peter Dahmen: I made my first pop-ups when I was a student. The task was to make three-dimensional objects using paper and card. A lot of the pieces were too big to take to the university on the tram, so I started to make my models in the form of pop-ups.

What is your inspiration for these pieces?

Peter Dahmen: I'm mainly interested in exploring what is technically possible. I'm looking for complexity in series and structures. Many of my works are based on a very simple shape that I have repeated several times or scaled up massively. Although not all of my ideas can actually be turned into pop-ups, I'm always fascinated to see whether or not they will work.

How popular is your art?

Peter Dahmen: Just over a year ago I put films of my work on the Internet and I've had a million clicks so far. The “wow effect” of pop-ups also attracts a lot of commercial customers. I've just completed an exciting marketing project – the model for a huge pop-up that will be more than 30 feet (9 m) wide and 16 feet (5 m) tall. I also do contract work for architectural practices and I'm currently working on numerous ideas for 3D pop-up cards.

How do you explain the boom in animated paper?

Peter Dahmen: 3D is pretty big at the moment in the movies, in electronic media and in books. Although pop-ups don't provide augmented reality, they do offer a genuine haptic charm. You can decide for yourself what you're going to do with it – whether you're going to play with it or open and close it 20 times over, or whatever. But there are important differences between this kind of work and virtual pop-ups. For example, what works on-screen isn't always achievable with paper. Computers aren't bound by physical limitations. Paper is. Everything has to fit between two covers and people often underestimate the amount of work that it involves.

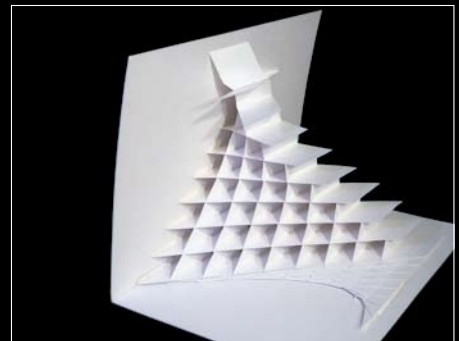
Is there a pop-up book that you are particularly fond of?

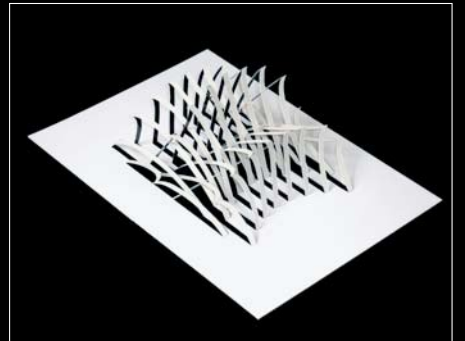
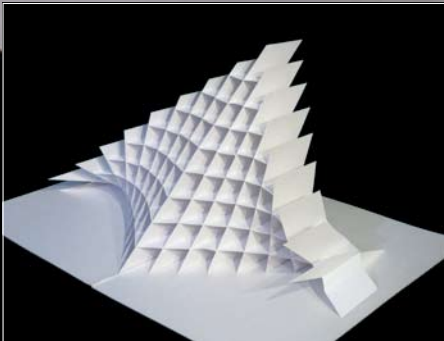
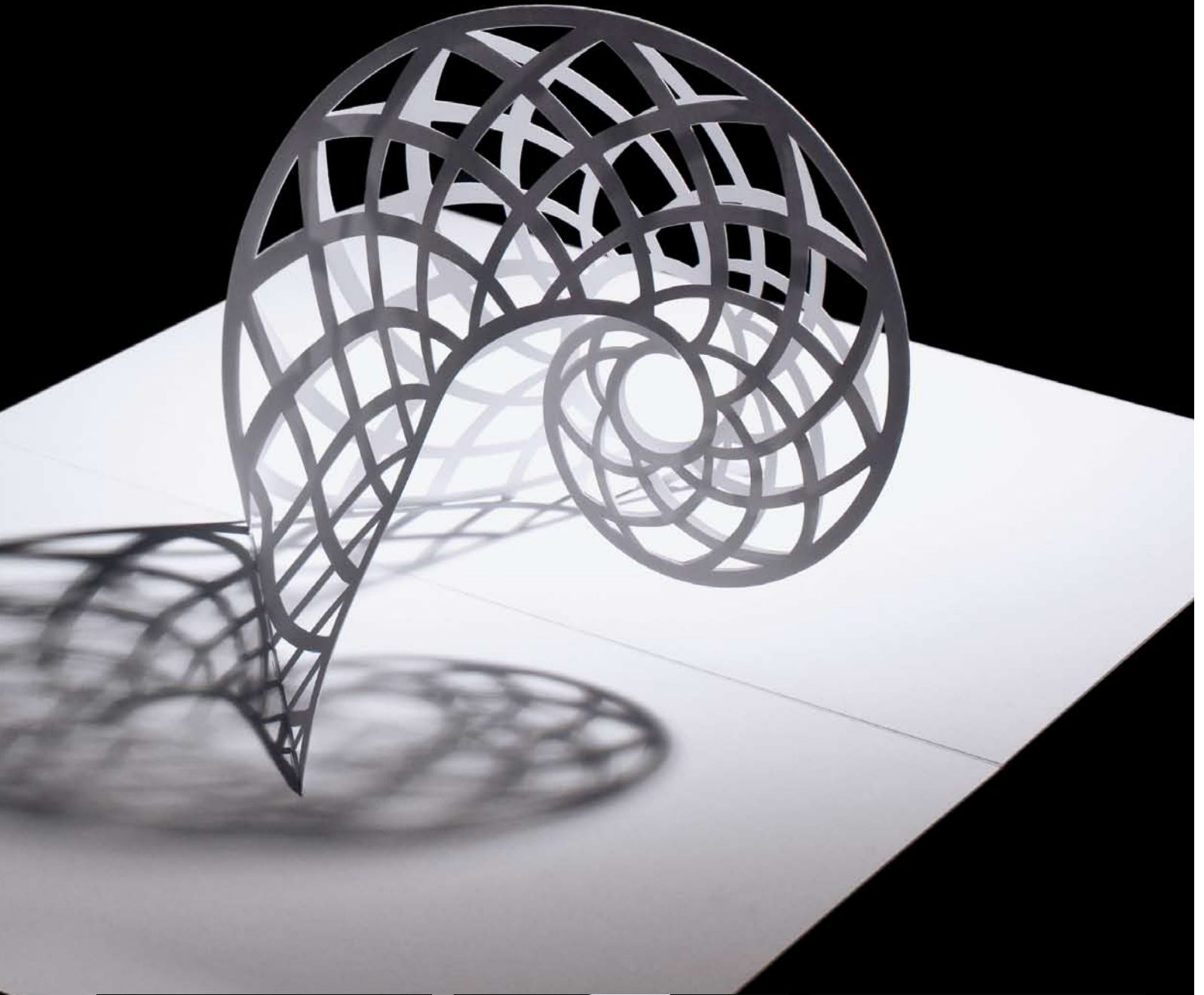
Peter Dahmen: “*One Red Dot*” by David A. Carter, because he plays around with abstract shapes. It starts to make sense when you open it.



Further information

See Peter Dahmen's amazing pop-up sculptures in action at www.peterdahmen.de/pd_papierdesign.html, or simply scan the QR code and watch the pop-up video with a smartphone.







“WHOOOOOSH!” // PAPER ENGINEERING BY MATTHEW REINHART, NEW YORK

Matthew Reinhart from Cedar Rapids, Iowa, in the United States was supposed to become a doctor, but he was captivated by what could be achieved with paper, ink, scissors and glue. From an early age, Reinhart filled countless sketch pads with drawings of dinosaurs, spaceships and superheroes. He moved to New York to study industrial design, specializing in toy design, and it was there that he met the famous children’s book artist Robert

Sabuda. At the end of the 1990s, they produced their first books together – the award-winning “The Wonderful Wizard of Oz” and “ABC Disney.” In 2005, they even found themselves on *The New York Times*’ best-seller list – with the first volume of the pop-up trilogy “*Encyclopedia Prehistorica*” about dinosaurs, sea monsters and “mega-beasts” from the ancient world. Each of the three books contains 35 impressive 3D paper sculptures.

Reinhart’s first major solo project – “*Star Wars: The Pop-up Guide to the Galaxy*” – won him the Meggendorfer Prize of the New York-based Movable Book Society in 2008. The prize is named after Lothar Meggendorfer (1847–1925). Born in Munich, the illustrator is

one of the early masters of animated books. Reinhart’s latest book, marking the 75th anniversary of American comic publisher DC Comics, was published in 2010. “*DC Super Heroes: The Ultimate Pop-Up Book*” includes pop-ups of superheroes such as Batman and Superman that Reinhart has folded perfectly so that they really do leap out when the book is opened. ■



Book tip: “*DC Super Heroes: The Ultimate Pop-Up Book*,” Little, Brown and Company, Pop Edition, was published in October 2010 and contains 25 pop-up sculptures, including one of Batman with light effects. ISBN-13: 978-0316019989

Coating not cracking

COATING FOR BEGINNERS // Virtually everyone starting out in the world of print product coating will work up from oilprint varnishes to dispersion coatings. But things can go badly wrong. Several precautions need to be taken to ensure a dispersion coating does not end up looking like cracked, leathery skin.

Dispersion coatings are mostly made up of water (at least 45 percent). After water come styrene acrylates (with or without pigment), which are responsible for producing the intended effect. Then there are other components that ensure dispersion is stable and define properties such as surface tension and rub resistance. Once the water has dried off, the remaining components meld together to form a film. This film is odor-free, practically resistant to yellowing, ideal for coating everything from luxury print products to packaging for frozen foods and ensures rub resistance. Press operators can also cut powder consumption, utilize the full pile height and – because the coating sets quickly – rapidly move on to further processing.

However, operators who want to make the most of these benefits must keep a close eye on how much coating is applied. To do this, they can use a DIN viscometer (ISO 2431) to check the coating's flow time. To ensure accurate results, it is crucial that the coating manufacturer's guidelines (warehousing, usage, processing temperature, emulsification, etc.) are followed to the letter. Nonetheless, it is all too common for coatings not even to be stirred properly. Indeed, if all these requirements are ignored, flow time cannot be calculated properly. This results in inaccurate profiles and turns the coating application process – which is so heavily dependent on timings – into a game of chance. Accurate and regular measurement is particularly important when using a two-roller system, which can produce larger fluctuations than a chambered blade system. Using too little coating or working at too high a speed can lead to problems such as cracking in the coating layer and ink buildup on the coating form. On the other hand, using too much coating can result in a halo effect, streaking and paper distortion.



“Cracking” with a web-like pattern of fine cracks mostly occurs if the temperature is too high and the speed or quantity of coating is too low.

Operators using the chambered blade system are at an advantage, as a laser-engraved screen roller ensures that a largely consistent quantity of coating is applied. That is why this system is also more suitable for applying Iridin products and coating fine fonts and details. When using either of the systems, it is important to cautiously work up to the optimum contact pressure between the metering or screen roller and the coating plate. If this pressure is too great, details can be destroyed or a halo effect produced. If it is too weak, the coating application process can be adversely affected.

To achieve application levels that are as uniform as possible, it is advisable when using the two-roller system to optimally adjust the gap between the water pan and metering rollers along their entire length. When using the chambered blade system, the same applies when adjusting the printing pressure between the chamber and the screen roller.

To ensure the perfect coating result, it is also important that dispersion coatings are allowed to dry properly. Because they dry through evaporation only, exactly the right combination of infrared radiation and hot air needs to be used. If too much heat is applied, the layer of ink can

“soften,” causing sheets to stick together in the pile. However, the most common problem that occurs when the temperature is too high and the speed or quantity of coating is too low is “cracking,” when a web-like pattern of fine cracks forms in the coating, causing it to resemble cracked, leathery skin. If not enough infrared radiation or hot air is used for the selected production speed, quantity of coating, etc., the coating may not dry out properly and this causes sheets to stick together. However, the same could happen if not enough moist air is extracted quickly enough at the delivery!

As a rule of thumb, the pile temperature at the delivery should be 8-10 degrees Celsius higher than at the feeder when processing paper and 10-15 degrees warmer when working with card. One of the best ways of checking this is with a portable moisture meter that has a temperature readout. However, as the optimum pile temperature will vary depending on a whole range of factors (specific coating properties, climatic conditions, delivery type, etc.), it is well worthwhile seeking the advice of an application engineer.

Heidelberg recommends coatings from the comprehensive Saphira product range, since these products are ideally suited for use in Speedmaster presses. That applies to everything from simple functional coatings to attractive effect coatings and special Performance Kits for truly impressive quality at maximum production speeds – double-sided inline coating included. ■

Info

The products described may not be available in all markets. Further information is available from your local Heidelberg representative.



MEN AT WORK // EPISODE 9

RON KNIEPS //
BELFELD, NETHERLANDS

A Passion for Big Wheels and Roller Coasters

RON KNIEPS (42) has been working in finishing at Dutch print shop HENK Grafimedia Center for three years and has a rather unusual hobby – traveling to fairgrounds just across the border in Germany. In the past, he has visited more than 20 in a single year. Today, with his work, wife and three children, he has precious little time to pursue his pastime. Nonetheless, the thrills of Power Towers, big wheels and so on still have a powerful hold on him.

You are a big fan of fairgrounds. What is it about them that appeals to you so much?

Everything: The atmosphere, the colorful, flashing lights at night and the special attractions you find at the really big events, such as the 66-meter-high Power Tower II at Düsseldorf that gives you the experience of free-falling from a great height.

How often do you go to these events?

In the past, I went to all the big fairs throughout Germany. There were certainly more than 20 of them in some years. Nowadays, I don't have as much free time, but I always get to the ones in Düsseldorf, Neuss, Oberhausen and sometimes Bremen.

You work at HENK Grafimedia Center in Belfeld. Do you live in Belfeld, too?

No. My wife and I have a semi-detached house 30 kilometers away in Montfort. We live there with her daughter and my two children from my first marriage, who spend a week with us and then a week with their mother.

What is your normal working day in finishing like?

My working day starts at 8 a.m. I get up at quarter to seven, have a cup of coffee and two or three slices of bread and then take the freeway to Belfeld. It takes me about 20 minutes to get to the print shop. Then it's folding, cutting and assembling brochures on the saddlestitcher – the whole nine yards – until 4:30 p.m. Then it's time to head home.


What in particular do you like about your job?


The variation and the opportunity to actually create something beautiful that I can really identify with. That gives me a good feeling, even if the work is hard and you often end up very tired in the evening.


If you were granted one wish, what would it be?


I am very lucky, I have everything I want. I recently bought myself a new bicycle for going out on rides with my wife and the children. We've got a new car, too. Really, there's nothing else I want, except to stay healthy.


HN Voices


 **Mark Zastrow, Wausau, US** // *Try to do some stories on the men and women who actually use the equipment. Not just the people who they help to become successful. Ask the workers how Heidelberg helps them to do the best printing in the world.*


 **Gibson G. Likoswe, Lilongwe, Malawi** // *This magazine is very good. It provides information on new technologies and solutions to some of the challenges we encounter.*


 **Michael Schlapp, Erzhause, Germany** // *How about featuring something on "old machines" to show younger employees how things used to be in the days before Autoplate XL, CP Tronic or Image Control? That's sure to be of great interest to a lot of readers.*

 **Urs Schme, Jona, Switzerland** // *Once again you've scored a great hit with the 271st edition and its exciting mix of topics and fantastic design. The article "Va Bene" interspersed with black-and white images is particularly well done.*

 **Silvana Crivelli, Caseros, Argentina** // *We're all impressed here with your magazine. At the moment we're working with 14 printing units from Heidelberg and we're looking to add some more.*

 **Nicolai Faißt, Schiltach, Germany** // *I've been reading Heidelberg News since the end of my apprenticeship and I'm always keen to see the interesting reports. I particularly enjoy the ones from abroad.*

 **Carlos Silgado, Bogota, Colombia** // *I like the varied content of the whole magazine and the high print quality.*

 **Bianchi Francis, Saint-Dié-des-Vosges, France** // *Your market and situation analyses and targeted suggestions on how to respond to the latest changes are always helpful. Well done.*

WINNER OF THE READER'S SURVEY – HN 271

1st Prize: LEICA X1

Tony Letto, Elk Grove Village, Illinois, USA

2nd and 3rd Prize: iPod touch

Hubert Bierast, São Paulo, Brazil

Bernhard Kastl, Haid, Austria

4th to 6th Prize: 138 U.S.-dollar (100 euros) Gift Certificate for the Heidelberg Merchandizing Shop

Carlos Mellado Gaudiza, Valencia, Spain

Ritchie Rivera, Calumpang, Gen. Santos City, Philippines

George Chan, Quatre Bornes, Mauritius

IMPRINT

© Heidelberger Druckmaschinen AG, Issue 272, 2011

Internet: www.Heidelberg-News.com

E-mail: Heidelberg.News@heidelberg.com

Publisher

Heidelberger Druckmaschinen AG

Kurfürsten-Anlage 52-60

69115 Heidelberg, Germany

www.heidelberg.com

Adriana Nuneva, Senior Vice President – Global Marketing & Communications, Print Media Academy, Education & Consulting

Project Management

Dietmar Seidel

Tel.: +49-(0)-6221-92-5074

Fax: +49-(0)-6221-92-5042

E-mail: Dietmar.Seidel@heidelberg.com

Department Products & Solutions

Sabine Langthaler

E-mail: Sabine.Langthaler@heidelberg.com

Editorial Advisory Board

Matthias Burmeister, Manuela Deufel, Veronique Dubost, Martina Ekert, Dirk Henrich, Timothy Henschel, Mark Hogan, Roland Krapp, Andreas Lang, Rainer Manderbach, Zeynep Oguz, Glenn Plummer, Volker Trapmann, Kolja Weyandt

Translation

Linguatext Ltd.

Design and Production

SIGNUM communication GmbH

Lange Rötterstraße 11

68167 Mannheim, Germany

Tel.: +49-(0)-621-33974-0

Fax: +49-(0)-621-33974-20

www.signum-web.de

Editor-in-Chief and Project Manager

Volker Zeese

E-mail: Zeese@signum-web.de

Project Assistant

Robel Mesfin

Creative Direction

Matthias Birkenbach

E-mail: Birkenbach@signum-web.de

Art Direction

Oliver Weidmann

Layout

Karin Breuner

This issue's editors

Volker Zeese (6-13, 16-23, 42-47, 54), Heike Link (28-31), Klaus Pfenning (34-37, 38-40), Caroline Hansen (48-52)

This issue's photographers

Daniel Lukac (cover, 6-13), Antonina Gern (16-23, 54), Rainer Diehl (4-5, 42-47), Sabine Kress (50-51, 54)

Printing

Printed in Germany

Print Media Center, Heidelberg

Production

Printing plates: Suprasetter

Printing: Speedmaster

Finishing: Stahlfolder

Consumables: Saphira

Fonts: Heidelberg Gothic, Heidelberg Antiqua

Circulation

100,000 copies

Area of circulation

120 countries

Languages

German, English, French, Spanish

Cover photo

Horst Pinsker,

Owner and Managing Director, Pinsker Druck und Medien GmbH

The articles do not necessarily reflect the opinions of the publisher. All rights are reserved. Copying or electronic distribution with the publisher's permission only.





OUR SECRET RECIPE FOR PREMIUM PAPER: NO COMPROMISES.

PAPIERFABRIK SCHEUFELN HAS BEEN EUROPE'S LEADING MANUFACTURER OF PREMIUM QUALITY COATED PAPER SINCE 1855.

Our recipe has remained the same all those years: we simply only offer the best – in every respect. In selecting raw materials, during the manufacturing process, quality assurance and service. It goes without saying that all of our paper is certified by the FSC or PEFC. Attributing each individual sheet four additional special ingredients – the values for which we stand: premium, independent, creative and simply different.

Made by Scheufelen – made in Germany. More information on us and our brands at www.scheufelen.com



Scheufelen

phoenixmotion 

parilux 

heaven42 

bvs  bro 