



HN

HEIDELBERG NEWS

The Customer Magazine
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IN THE SPOTLIGHT

THE DRYSTAR LE UV TURBO DRYER

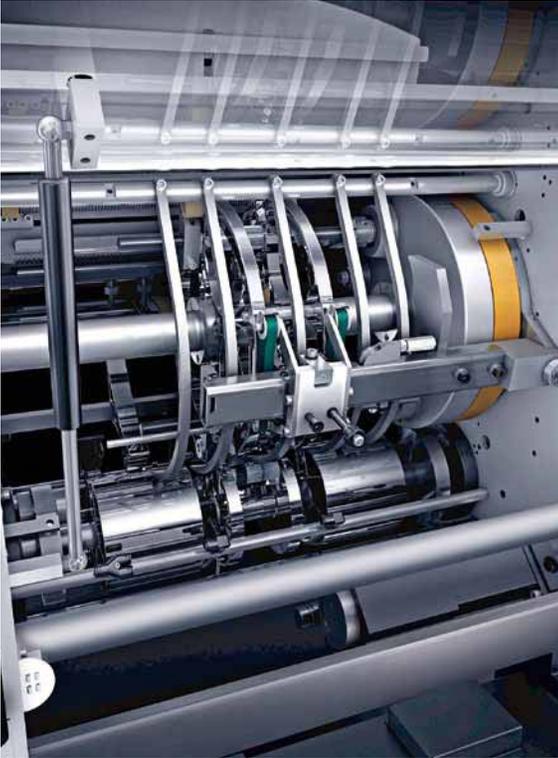
LESS IS MORE

RLC PACKAGING GROUP,
PHARMACENTER BERLIN

READY TO ROLL

SPEEDMASTER XL 75 ANICOLOR GOES
INTO SERIES PRODUCTION

HEIDELBERG



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SNAPSHOT



GOOD LUCK!

When someone at Thoro Packaging in California has a birthday, they get to spin the “birthday wheel” and try their luck. Prizes include a gas voucher worth 50 dollars, two tickets for the movies and a car wash up to the value of 20 dollars. And if they’re really lucky, the rubber needle will stop at lunch with Jan – the star prize. Jan is Janet Steiner, CEO of Thoro, who applies a somewhat unusual motto to her packaging for cosmetics and medical devices – “If you do not make dust, you eat dust.” She also treats her 140 staff very differently from other employers, which makes Thoro something rather special.

Find out more from page 26 onward

DEAR READER,

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he instant your eyes fell on the cover page, you'll no doubt have noticed that there's something different about your Heidelberg News. And you're right. We've given our customer magazine a complete makeover, including visuals and contents. Using this new, modern layout, we'll continue to tell you about key industry trends, introduce the latest products and services, highlight possible new applications and report on the success stories of print shops the world over. However, we're now aiming to focus more systematically on the successful business models of packaging and commercial printers.

In the new "At the Limit" section, for example, we look at the strategies and solutions print shops can use to improve their performance and level of standardization. In the customer profile, we feature a particularly interesting company that sets an example in both these respects. The "To Perfection" section is based on the same structure in terms of content but highlights ways of being more successful in standing out on the market, for example by offering special applications. From now on, all issues relating to green printing will appear in the "Eco" section, while the "Panorama" section is devoted to broader topics.

So there's a great deal that's new in the latest HN. This includes formats divided into smaller sections with a great deal of information we hope will prove useful. Some items will be familiar to you, such as our popular "Tips & Tricks" that has now been given a little more space. Take a look and see for yourself! We hope you enjoy browsing through and reading the articles.

Sincerely,
Your HN editorial team

P.S. Write to us at
heidelberg.news@heidelberg.com
to let us know how you like
the new HN. We look forward to
receiving your comments,
whether positive or negative.



SERVED CHILLED

Swedish graphic design studio Bedow has joined forces with Danish brewery Mikkeller to develop a temperature-sensitive label for four different varieties of beer. The label for the Winter Edition of well chilled Pale Spring Ale, for example, shows a snowflake that transforms into a sun if the beer gets warm. To reflect the three other seasons – spring, summer and fall – the label also comes with a flower, tree or raindrop whose appearance also varies depending on the temperature.

The labels, which are printed with reactive inks, are not only helpful for visual temperature control but are also exceptional eye-catchers that ensure the product gets noticed. This was also the verdict of several international panels of judges, where the limited-edition series of labels has won numerous prizes. These include the Swedish Design Award, European Design Award, the Merit Award from the Art Directors Club, D&AD Award and the Cannes Lions International Festival of Creativity.

www.bedow.se, www.mikkeller.dk



GOOD TO
KNOW

34
BILLION

printed items
are delivered to
German mail-
boxes each year,
including books,
catalogs, maga-
zines, newspapers
and leaflets. This
equates to 425
items per person
per year.*

*Source: Bundesverband
Druck & Medien e. V.

SURFING ON LIGHT WAVES

Online users could soon be able to surf wirelessly using LED lamps. The necessary technology is known as Light Fidelity, or LiFi for short, and has been developed by international companies and research institutes over a number of years. LiFi works like a WLAN network, although data is transmitted not by radio waves but by LED light waves. LiFi currently achieves transmission rates of 10 Gbit/s under laboratory conditions, and several hundred Gbit/s are theoretically possible. LiFi offers a wide range of benefits. As there are no radio waves and thus no impairment of sensitive equipment, LiFi can be used in aircraft or hospitals without any problem. LiFi could also provide a rapid solution where a mobile high-speed network has not previously been available, as existing light sources can be used following appropriate conversion.

www.li-fi-wiki.de

NUMBER FOUR FOR PAPER

With a production volume of 22.6 million metric tons of paper, board and cardboard, the German paper industry in 2012 was number one in Europe and is in fourth place worldwide behind China, the U.S. and Japan. Packaging paper and board made up 46.5 percent. Some 40.6 percent of the production volume was accounted for by graphical paper, while the remaining 12.9 percent was divided roughly equally between sanitary and special paper. Paper is traded worldwide and produced in over 3,000 grades. Germany exports approximately half of its production, while around half of consumption is covered by imports.

KICK-OFF

FIRST THE BASICS, THEN THE REFINEMENT

The future development of print will not simply be dictated by technical innovations. Useful applications that open up new ways to stand out from the crowd are at least as important. One example of this is the creative concept Cristala, which has moved beyond the experimental stage and is now ready for series production.

By Dr. Martin Schmitt-Lewen

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Did you visit drupa 2012 and perhaps even drop by the Innovation Gallery at the Heidelberg booth? If so, you will no doubt still remember the printed record with its unique gloss finish and seemingly embossed grooves that looked as though you could put it straight on the turntable and play it.

The record was made using Cristala, a creative concept from Heidelberg that produces new surface finishing effects from the tried-and-tested drip-off method. These effects are created by specially processed prepress data that is used to prepare a sample form incorporating structured coating surfaces into the print image, that is to say geometric shapes such as lines, typographical patterns, textures, ornaments or even contone images. They look embossed but are in fact printed.

With its changing gloss effects, Cristala grabs people's attention. It makes the print image look dynamic and alive. What's more, the structured coating creates a haptic component that also protects against copying. It is impossible to scan in the three-dimensional structure. Indeed, print shops need the appropriate know-how and coating expertise to reproduce this. In addition, it is far more cost-effective to create the structures using an offset plate than with a flexographic or coating plate.

Following drupa 2012, this and other benefits led to Cristala undergoing further development at the Heidelberg Research and Development Center with a view to reaching

the series production stage. An initial result is now available – a 150-page sample book with 50 different patterns, each in three different sizes. There is also a data CD with all the samples. These are freely scalable with Adobe Illustrator and can be filled and colored in seamlessly/continuously using free contours. The sample book and the data CD have been available since mid-2013 for initial field testing prior to a more comprehensive market rollout.

The bundle is aimed at enthusiastic entry-level users who want to try out the product immediately without having to do any programming. The sample book produced using Saphira consumables can also be used to compare users' own results with the ideal solution. With its prefabricated samples, the bundle offers all the basics. A lot more refinement will be needed to meet tougher demands, though, and customizing will be necessary in this case. With this in mind, we are already working on a solution for the most discerning printers and print buyers. ■



DR. MARTIN SCHMITT-LEWEN holds a doctorate in physics and develops new applications for print media, as part of the R&D Division at Heidelberg Druckmaschinen AG.

100 ARGUMENTS IN FAVOR OF PRINT

Print is growing and is also set to hold its own in the digital age as a particularly efficient communication medium. The print and media associations explain why in their campaign "Die Zukunft wird gedruckt!" [The future is print!]. In nine presentations, a film and a graphic in pop-art style, the associations cite some 100 facts and arguments that show why print is a particularly efficient means of reaching its target groups, including in terms of sustainability.

"So far there are no indications that the rapid growth of the virtual world will halt demand for print services," explain the associations in a brochure accompanying the campaign. However, the campaign doesn't just aim to highlight the importance of print. In particular, it is looking to offer companies in the industry fact-based support for sales activities. The associations offer all the key campaign information materials to download for day-to-day sales activities, meetings with customers and in-house events.

www.die-zukunft-wird-gedruckt.de/
www.youtube.com/watch?v=X6DoomVrTLg

HERZLICH WILLKOMMEN

Die deutschen Druckereien gehören zu den vielfältigsten und modernsten Industrien weltweit. In Zeiten, in denen die traditionellen „Holzmedien“ von den digitalen Boommedien gern in den Schatten gestellt werden, zeigen wir hier die wichtigsten Fakten zum Thema Print.

Und die sind für viele wahrscheinlich überraschend: Print wächst analog wie digital, ist nachhaltig und funktioniert hervorragend. Für Privatpersonen und Unternehmen sind Alltag und Geschäft untrennbar mit Gedrucktem verbunden.

Wir sagen:
Die Zukunft wird gedruckt.
Schauen Sie selbst.

PREISKRÖNTE
8 von 10 Awards für die besten Druckereien der Welt gehen an Deutschland.

16,3 MILLIARDEN €
beträgt die Produktionswert der Druckbetriebe pro Jahr.

34 Milliarden gedruckte Sendungen landen in deutschen Briefkästen: Bücher, Kataloge, Zeitschriften, Zeitungen, Prospekte. Das sind 425 Sendungen pro Kopf und Jahr.

82.000 NEUESCHREIBERINEN PRO-JAHRE NACHDEM DEM DEUTSCHEN BUCHMARKT WACHSUNG.

3,5 MILLIARDEN € PRO-JAHRE FÜR GEDRUCKTE WERBEMITTEL, VOM PLAKAT BIS ZUM WERBEBÜHEL. TENDENZ STEIGEND.

x11 DER PAPIERVERBRUCH FÜR GEDRUCKTE MIT DICH GUT UND GUT-JAHRE WACHSTUM!

+5,3% MIT DER DRUCKLÄUTERUNG 1990-2011 PRESSENLEISTUNG WACHSEN!

PRINT WÄCHST

Wie steht es um die Zukunft von Print? Eine in Zeiten digitaler Erfolgsmeldungen häufig gestellte Frage. Die Antwort ist für viele überraschend: Print wächst, in den zwanzig Jahren der Internetrevolution ist der preisbereinste Output der Druckindustrie gewachsen. Mit den üblichen konjunkturellen Schwankungen - und auf sehr hohem Niveau.

PRINT IST DIGITAL

Die virtuelle Welt wächst nicht nur mit einem atemberaubenden Tempo, sie verändert auch das Geschäftsmodell der realen Industrien, auch das der Drucker. Und die profitieren davon. Was in die eine Richtung funktioniert, funktioniert auch in die entgegengesetzte Richtung: Das Internet profitiert von Print. Denn was machen die meisten Online-Käufer bevor sie klicken? Sie blättern in einem gedruckten Katalog.

60% aller Online-Besteller haben vorher im gedruckten Katalog geblättert

UMSÄTZE ONLINE-DRUCKEREIEN

Jahr	Umsatz in Mrd. €
2004	0,8
2005	1,1
2006	1,7
2007	2,1
2008	2,2
2009	2,2
2010	2,2
2011	2,2

Halbautomatische Einbahnkarten und Flyer werden immer häufiger im Internet bestellt. Das Computerscreen zeigt einen QR-Code, der Sie direkt ins Internet bringt - und der wird gedruckt.

NUTZUNG QR CODES

Kategorie	Prozent
Gar nicht	2%
Wenigstens ein Mal	32%

6,2 Millionen eigene Magazine druckt der Online-Händler Zalando, um online mehr zu verkaufen

31 Millionen Kataloge druckt Ikea für 2013 - inklusive digitaler Augmented Reality

PRINT IST NACHHALTIG

Das Druckgeschäft ist eine der ältesten Industrien unseres Kulturraums, sie gehört zu unserem Leben und Wirtschaften - und hat in den letzten Jahrzehnten seine Hausaufgaben gemacht: Papier und Druck haben umfassend in Umwelt- und Naturschutz investiert. Während die Internetwirtschaft noch weitgehend Ökonomie vor Ökologie stellt, ist das Printgeschäft in einem langen Prozess verantwortungsvoll und nachhaltig geworden.

20% weniger CO₂ als das Leben der (elektronischen) Nachbarn (Energieverbrauch in Internet)

12.000 Tonnen CO₂ haben die Druckereien im Rahmen der Green Printing Initiative in den letzten 12 Monaten kompensiert

100% befreit über ALTPAPIERANTEIL bei Zeitungen

16 MIO TONNEN Altpapier wurden 2011 in der Papierkette wiederverwertet

1500 FSC-ZERTIFIKATE WURDEN ALLEIN 2011 AN UNTERNEHMEN VERGEBEN



OUTSIDE INSTEAD OF INSIDE

Saphira Low Migration. Heidelberg supplies a wide range of comprehensively tested consumables under its Saphira brand. This year, the range is being extended to include special products for food packaging printing.

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aterials used in food packaging printing are subject to particularly stringent regulations. After all, the substances they contain can come into direct contact with food via the pulp fibers in a carton, thereby affecting taste and, in some cases, even posing a health risk. The transfer of constituents of inks, coatings, adhesives and other auxiliary materials from the packaging to the food ("migration") must therefore be kept to very low, precisely defined quantities. If the limit values are exceeded, print shops are liable in the event of a claim. The industry is therefore extremely cautious when it comes to using suitable consumables.

Heidelberg now sells a range of products under the name Saphira Low Migration that have been successfully tested for compliance with the applicable legal requirements by independent institutes such as ISEGA, Fabes and others. This makes it much easier for print shops to select suitable products.

One special feature is the extensive testing procedure applied to Saphira products. Most inks, coatings and other products are usually tested in isolation to establish print quality and print properties. In other words, the tests do not investigate how inks interact with the press, other substances or environmental factors. This is exactly where Heidelberg applies its Saphira philosophy. The company chooses

the most suitable inks from the range available for the food industry and tests them on various board thicknesses and in combination with the press, blanket, dampening solution and other factors. "We are the only company in the print media industry to pursue such an approach," says Thomas Fischer, Product Manager Consumables at Heidelberg.

Products in the Saphira Low Migration range are designed exclusively for indirect contact with food, i.e. for printing on the outside of folding cartons. Particular care needs to be taken when selecting consumables for these print products, because compared to packaging for cosmetics or consumer electronics, the authorities keep a very close watch on folding cartons for cornflakes, chocolate, vegetables, fish and meat. An EU Commission Regulation stipulates the strict regulations in countries of the European Union, while the Food and Drug Administration (FDA) exercises this role in the United States. ■

GOOD FOR YOUR HEALTH

The manufacture of packaging for food is strictly regimented by law – in the European Union, for example, by EU Regulation No. 1935/2004, which states: "Materials and articles ... shall be manufactured in compliance with good manufacturing practice so that, under normal or foreseeable conditions of use, they do not transfer their constituents to food in quantities which could:

- endanger human health
- bring about an unacceptable change in the composition of the food
- bring about a deterioration in the organoleptic characteristics thereof"

Saphira Low Migration consumables are available for the press and postpress sectors.

Saphira Low Migration for conventional and UV presses:

Inks, coatings, dampening solutions, washup solutions, H1 lubricants

Saphira Low Migration for postpress:

Folding carton glues for disc and nozzle application

www.heidelberg.com/saphiralowmigration

HEIDELBERG UP TO DATE

FASTER DIE CUTTING

Heidelberg. A new quicklock frame from Heidelberg is available for the Dymatrix 113 Pro CSB and 106 Pro CSB die cutters that cuts makeready times by up to five minutes. What's more, even the smallest of waste pieces can be stripped precisely and reliably at high speed when working with complex layouts and fine contours. The die-cutting shop of Graphic Packaging International in Hoogerheide in the Netherlands is just one business benefiting from the advantages of this new system. One of the first users worldwide, the company has been using the quicklock frame for a year in conjunction with a Dymatrix 113 Pro CSB. "Operating round the clock six days a week, the die cutter handles up to 650,000 sheets each week, combining maximum production stability with top-quality results," says Willem de Groot, who is in charge of the die-cutting shop. "By installing a combination of quicklock frame, special adapters and a chase changer, we have cut our makeready times by around a third." What's more, by making specific modifications to the machine, Graphic Packaging International can continue to use its existing special tools with the Dymatrix. "If we were to make the investment decision again, we'd make the same choice," says de Groot.

www.heidelberg.com/dymatrix106pro, www.heidelberg.com/dymatrix113pro



Sebastian Maggio, CEO of Arcángel Maggio

ENHANCED PRODUCTIVITY

Argentina. Long-standing Argentinian company Arcángel Maggio has taken South America's first eight-color Speedmaster XL 106 with CutStar sheeter, coating unit and extended delivery into operation. "The new press is our answer to ever shorter delivery times, because it has significantly boosted our productivity," says Sebastian Maggio, who 10 years ago became the third generation of his family to take charge of the group of companies. "We grew up, as it were, with and thanks to Heidelberg, so we're delighted that what we consider to be the world's most productive press comes from this company," adds the managing director. Arcángel Maggio was founded 84 years ago and is now one of Argentina's leading print media industry businesses. The group produces newspapers using web offset printing and, in sheetfed offset, specializes in printing high-quality books and other products on coated paper. Arcángel Maggio has worked with Heidelberg from the outset.

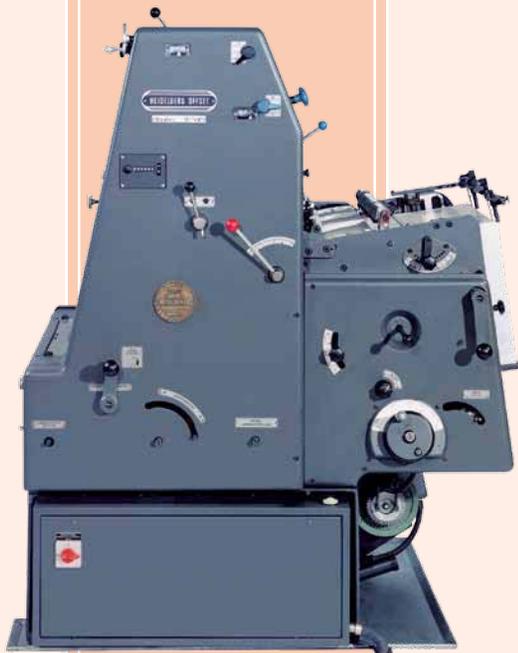
www.arcangelmaggio.com.ar



WEBINARS FROM HEIDELBERG

In an increasingly competitive marketplace, the right know-how can help print shops gain crucial advantages. It is with this aim in mind that Heidelberg is supporting its customers with webinars that provide valuable expertise online. In live sessions lasting no more than 45 minutes, Heidelberg experts answer questions from participants on a series of alternating topics. As a result, print shop owners and machine operators can access valuable information, for example on the Remote Services that Heidelberg offers or on all the key criteria for green printing with Saphira Eco consumables. Other topics include tips and tricks on print color management, certification to ISO 12647-2 and the international regulations that govern food packaging printing. All the webinars are held in German and English and include an extensive interactive Q&A section. Participation is free of charge and sessions can be booked without any obligation at:

www.heidelberg.com/webinar



Bye Bye

GTO

It was the world's most successful A3 sheetfed offset press, with more than 107,000 printing units sold. Now, after 40 years, Heidelberg has ended production of the Printmaster GTO 52 at its main plant in Wiesloch-Walldorf. The company is responding to the growing trend toward industrial print production that has seen demand for the GTO steadily decrease in recent years. The success story continues, though, with highly productive successors that have long since proved themselves as worthy members of the family.

Depending on their requirements, today's customers can opt for the highly successful Speedmaster SM 52 standard models or individually configurable Speedmaster SX 52 presses. Both series offer the ideal platform for meeting day-to-day challenges such as reduced run lengths, extremely short delivery times and fierce competition on prices. What's more, they can both be integrated into the Prinect workflow and support green printing by making it possible to cut carbon dioxide (CO₂) levels, process emissions and resource consumption. ■

AT THE LIMIT

“Ultimately it's all about manufacturing only what is currently needed, at the right time, in the right quantity and naturally in the right quality.”

HANS-CHRISTIAN BESTEHORN
MANAGING PARTNER AND SPOKESMAN
FOR THE MANAGEMENT BOARD,
RLC | PACKAGING GROUP

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Maximum Diversity –
The Stitchmaster ST 200
Compact and ST 500

Page 22

4 plus 3 – The Prinect
Multicolor Toolbox



rlc | packaging
group

LEAN STANDARDS

Berlin Pharmacenter. The rlc | packaging group aims to be soon producing one billion folding cartons a year at the Pharmacenter near Berlin, which opened in 2012. State-of-the-art presses and lean production make this possible.





The result is one of Europe's most state-of-the-art pharmaceutical packaging centers with 163 employees. Three production lines print, cut and glue around 650 million folding cartons a year. The site's sales rose 30 percent to 25.3 million U.S. dollars (18.4 m. euros) in 2013 alone and are continuing to grow. "This year, we're looking to achieve a further 25 percent," explains Managing Director Hans-Jürgen Katzer. "To do this, we'll shortly be starting up a fourth production line, with even a fifth line in the medium term, and increasing capacity to one billion folding cartons."

Systematic pharmaceutical partner

There are several reasons for the successful development of the business. One of them can be found in the surrounding area. The pharmaceutical industry in Berlin, 13 miles (20 km) away, is booming and is now the capital's strongest sector in terms of sales. It accounts for one in every seven euros generated by the German pharmaceutical industry overall. The print shop's Berlin-based customers, including such prominent names as Bayer, Klosterfrau, Menarini and Dr. Gerhard Mann, have performed well in the last few years. They're growing, as are the production volumes at the Rüdersdorf site, too.

The Pharmacenter also specializes in catering to the industry's precise requirements in its role as a systems provider. And this is no small undertaking – as large numbers of patents are expiring, more and more generic products are coming onto the market, which in turn are heating up the competition and increasing price sensitivity. The increasing variety of dosage forms is also leading to a growing range of drug batch sizes. The sales channels are changing, too. Almost all drugs are also available online on illegal websites, with an ever increasing number of cheap counterfeits claiming the lives of around 2,000 people a year. And yet another area is undergoing change – consumers are making ever increasing use of OTC (over the counter) products such as vitamin preparations and wellness drinks which, although only available in pharmacies, are not prescription drugs and whose market success largely depends on an attractive packaging design.

All of this is resulting in an enormous increase in the quality of service that print shops have to deliver in this market segment. A high level of interdisciplinary know-how is also essential to supply what is required – complete traceability, hygiene, process reliability, protection against counterfeiting. ➤

It's a good 600 feet from the entrance of the Rüdersdorf Pharmacenter to Patrick Klewitz's office at the other end of the hall – a four-minute walk, or five at most, if you take it easy. Patrick rarely manages it in less than 15 minutes on his way to work in the morning. The operations manager deliberately takes his time, greets the staff with a handshake, finds out how things are and listens carefully. Along the open walkway to his office door over the production hall, Patrick usually allows himself another few seconds to look at the machines below on the ground floor. "Standing up here and seeing that everything is running smoothly is something I look forward to every morning."

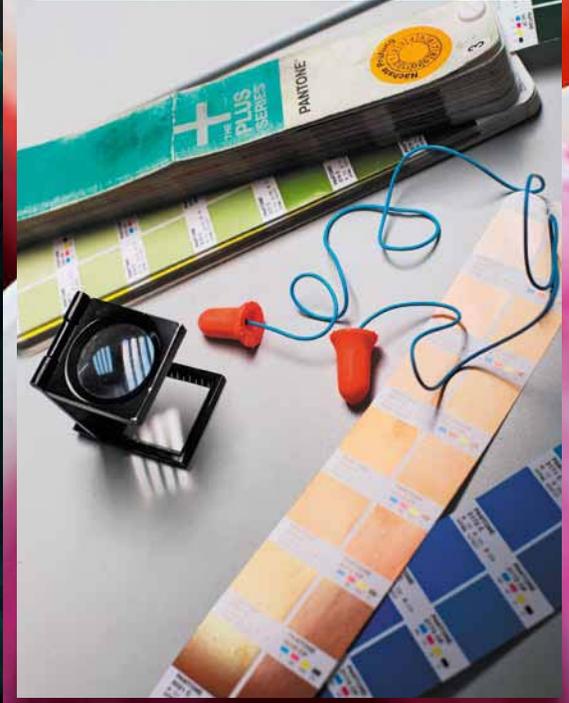
Things have been going really well since the Pharmacenter opened two years ago. It was then that the family-run rlc|packaging group invested around 27 million U.S. dollars (20 m. euros) in constructing a hall covering 48,500 square feet (4,505 sq. m) and doubling machine capacity to meet the rising demand.

“We’ll shortly be starting up a fourth production line, with even a fifth line in the medium term, and increasing capacity from 650 million to one billion folding cartons.”

HANS-JÜRGEN KATZER
MANAGING DIRECTOR,
PHARMACENTER BERLIN



Lean production features at Pharmacenter Berlin include clear assignments for each job, a minimum of pallets between press and postpress, regular inspections and everything being where it should be.



Discerning customers expect perfect traceability, excellent hygiene, process reliability, protection against counterfeiting and efficient, fault-free production.

› aesthetically and functionally impressive packaging solutions, and efficient and error-free production. And naturally all of this “just-in-time.” The Pharmacenter has this expertise, not least because it can harness the know-how of the entire rlc | packaging group, which is a full-service provider for cosmetics, foodstuffs, confectionery and pharmaceuticals and has a workforce of around 1,200 in Europe. Its offering ranges from packaging design through the in-house design agency brandpack (see page 18 for more details) to production operations at specialist sites, logistics and packaging technology.

The Rüdersdorf-based company also scores highly when it comes to special services. “For example, we can pack and distribute packaging, primary-packed drugs and the associated packaging inserts,” explains Patrick. “We have the relevant authorization under Paragraph 13 of the German Medicines Act (Arzneimittelgesetz) for the packaging process.” Each year, the Pharmacenter also prints around 300 million packaging inserts that already meet the upcoming EU Readability Guideline, which specifies that the font size must be at least 9 points. The up to 40.16 inch (102 centimeter) long packaging inserts are also folded as required. To do this, two special machines are used that cover all the necessary final dimensions and are never changed over. “That would take 16 hours,” says Patrick, to the astonishment of the others present.

Enhanced reliability in the new format

The next surprise is in the press room, which rivals a hospital operating room for cleanliness. There isn’t a single shred of paper on the immaculate floor, let alone marks or scratches. In their green workclothes with white hoods, the employees are also rather reminiscent of surgeons. And anyone looking at the printers in the glow of the light boxes might almost think they were studying X-rays rather than print sheets. But if you then look at the precision tools they work with, it becomes immediately apparent that this isn’t surgery but a production facility.

At the heart of this are three Speedmaster XL 75 presses from Heidelberg – a four-color and six-color, both with a coating unit, and an eight-color with UV dual coating unit and extended delivery. All the presses are equipped with the Prinect Inpress Control inline color measuring system that automatically measures and controls color and register on the fly. The trio of presses is also equipped with Prinect Inspection Control, which detects even the tiniest printing errors in a comparison with



“With around 70 jobs a day and average runs of 2,900 sheets, fast makeready times are simply more important than maximum speed.”

PATRICK KLEWITZ
OPERATIONS MANAGER,
PHARMACENTER BERLIN

the approved PDF. And this can literally be a life saver, says the 63 year old. “If just a small dot is missing for dosage instructions, the consequences may be fatal,” explains Hans-Jürgen who, together with experts from Heidelberg, played a key role in planning the new hall.

Before the new building was opened, the Pharmacenter still printed in the 3B format. However, shrinking print runs coupled with ever more frequent job changes made the management team rethink its approach. “We see the biggest opportunities for growth in the medium format,” says Hans-Jürgen. “We compared the presses from all the suppliers in terms of makeready times, process control and color stability,” Hans-Jürgen explains. “Heidelberg had the best concept, and we’re extremely happy with it.” Patrick nods in agreement. “The availability is unusually high.” To ensure this remains the case, all the presses are reinforced with Systemservice 36plus. “This makes sense, as the presses have to run fault-free,” says Patrick. “That’s why we’ll be opting for this service package again.” The decision to choose presses with a maximum speed of 15,000 sheets an hour – instead of presses with a speed of 18,000 sheets an hour – has also been thought through carefully. “With around 70 jobs a day and average runs of 2,900 sheets, fast makeready times are simply more important than maximum speed,” he explains.

However, the new surface finishing options possible with the eight-color Speedmaster XL 75 are also important for the Pharmacenter. While the other presses are used almost exclusively for conventional pharmaceutical packaging that is usually printed in four colors and to date rarely uses special applications, the long press is used primarily for OTC products. This sector currently still only accounts for some 20 percent of Pharmacenter sales. “But the segment is growing fast and this is where special applications are playing a much greater role,” says Hans-Jürgen. Folding cartons are given UV and pearly luster coatings or hybrid effects inline, while hot-foil embossing, hologram foils and relief cuts are also supported.

Lean printing

A further key success factor for the Pharmacenter and the whole group is the systematic focus of the entire value-added chain on the lean principle. This sounds abstract, but the effects at the Pharmacenter are plain to see. There are almost no semi-finished or finished products, and only a few pallets between ›



All-encompassing design expertise – a representative selection of packaging solutions for pharmaceutical and OTC products from brandpack that are extremely easy to open or exhibit security features such as a tamper-proof, tear-open perforation.

DESIGN WITH A DIFFERENCE

Three out of every four consumers decide completely on impulse what products they buy from the shelf or online shop. Usually, all that's needed is a quick glance to pick out a special aspect and establish an attraction to a particular packaging at the right moment. rlc|packaging group knows exactly how important this "moment of truth" is for the customer. That's why the group doesn't leave anything to chance when it comes to packaging design, instead using its in-house design agency – brandpack in Hanover.

The six-strong team designs integrated packaging concepts for the companies in the group and external industry customers, perfectly coordinating aspects such as construction, graphics, special applications, materials and sustainability. "Some types of packaging need a strong distinguishing function, others require optimized brand support – but it's always a question of generating real added value and ensuring efficient technical implementation," explains Stephan Bestehorn, Managing Partner and responsible for Sales & Marketing. brandpack has a key advantage over other agencies – the creatives from rlc|packaging group don't just harness rlc's own potential for their innovative ideas but also draw on the production know-how of the entire group, with each individual site benefiting from this. And that makes all the difference in an increasingly difficult market. ■



Stephan Bestehorn, Managing Partner and responsible for Sales & Marketing



“Our international customers have long converted their processes to the lean principle and also expect this from their suppliers.”

HANS-CHRISTIAN BESTEHORN
MANAGING PARTNER AND SPOKESMAN
FOR THE MANAGEMENT BOARD,
RLC | PACKAGING GROUP

press and postpress, as no station produces more than the next one can handle. All processes are also highly automated and standardized. Express centers ensure fast delivery using a small number of strategic partners. Manuals show how each machine can be made ready with maximum efficiency. Production is in line with the German process standard for offset printing. And wherever possible, printers work with customers to reduce unnecessary variation and complexity in folding carton formats.

Hans-Christian Bestehorn, who works at the headquarters of the rlc | packaging group in Hanover and is the fifth generation at the helm of the company, explains what exactly is meant by the lean principle. “Ultimately it’s all about manufacturing only what is currently needed, at the right time, in the right quantity and naturally in the right quality – not by building up large stocks but by using the shortest possible throughput times,” he says.

It is now six years since the Group started using this type of production system for its operations – a system where only those materials are supplied that the relevant downstream process can handle. But this only works if all processes are perfectly synchronized like intermeshing gears in a seamless flow. The production speed is based on current demand. All activities that fail to generate customer value, and are therefore a waste, are also being eliminated as part of a continuous improvement process. The Group’s sites can supply exactly what customers require at any given moment, and can do so cost-effectively and “just in time.”

In Hans-Christian’s view, there was no alternative to introducing the lean principle, given the increased market requirements and raw material prices. “Our international customers have long converted their processes to the lean principle and also expect this from their suppliers.” And they expect something else, too – the capacity to support them with globally standardized print products for international brand identities. Hans-Christian took up this challenge and in 1991 joined forces with Diamond Packaging from the U.S. to found the Global Packaging Alliance (GPA), an association that currently numbers seven independent medium-sized packaging producers in the U.S., Mexico, Brazil, Europe, Russia, South Africa, India, New Zealand and Australia. “The network coordinates its production processes internationally with each other and uses the same quality standards, ensuring

that the results for joint international projects on all continents are completely identical,” he explains.

rlc | packaging group also operates in a very similar way internally in the pharmaceutical sector, with the Group opening a further Pharmacenter in Poland in 2013, followed by another in Switzerland in 2014. The Group’s industry expertise will soon be available throughout Europe, not just in Rüdersdorf. ■

Pharmacenter GmbH
15562 Rüdersdorf,
Germany

www.rlc-packaging.com
www.global-packaging-alliance.com
www.heidelberg.com/XL75



MAXIMUM DIVERSITY

Stitchmaster ST 500/ST 200 Compact. Stitchmaster saddlestitchers stand for quality, speed and flexibility. Heidelberg has now extended its premium range to include two new machines – the entry-level model ST 200 Compact and the powerful ST 500.

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he changing face of the print media industry has brought about significant changes to the market in the postpress sector, too. In the major industrialized nations of central Europe, competition is particularly fierce among companies that provide folding, die-cutting, stitching and binding services, and more and more providers are disappearing from the market. This means that print shops need to find strong postpress service providers for long runs and, if possible, handle particularly urgent jobs in an in-house postpress section, so as to avoid unnecessarily long logistics routes.

If ever-shorter delivery times and tighter deadlines prompt print shops to handle postpress services themselves, this can result in a number of benefits. It gives them a time advantage over the entire production process and allows them complete control over the profitability and thus the quality of a job. Equally, postpress service providers can specialize in particular areas and use new machines and special equipment to offer print shops additional benefits.

It is for these reasons that Heidelberg has developed the Stitchmaster ST 500 saddlestitcher and its lower-cost sister model Stitchmaster ST 200 Compact. These two machines are designed to make collating, stitching and trimming operations as customized, flexible, efficient and cost-effective as possible. Both machines utilize technologies from the high-performance Stitchmaster ST 450, which is geared primarily to the requirements of industrial production. ■

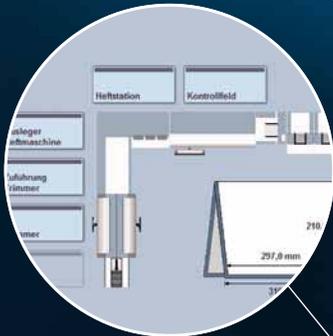
STITCHMASTER ST 200 COMPACT

The Stitchmaster ST 200 Compact is an entry-level model with low acquisition costs. However, it makes no compromises when it comes to product quality or the versatility in its range of potential applications. Unlike other saddlestitchers in this segment, it covers a broad format spectrum – from 85 × 128 millimeters (3.35 × 5.04 inches) to the A3+ format 330 × 500 millimeters (12.99 × 19.69 inches). At 11,000 cycles per hour, it offers exceptional speed for an entry-level model. Both this model and the ST 500 can also be used as collating machines for adhesive bindings.

STITCHMASTER ST 500

The bigger sister model includes several extra features as standard. For example, sheets can be fed in via horizontal or vertical feeders as required. This is particularly beneficial when processing sensitive papers and working at high speeds. In inline operation, the machine can also punch holes or separate multiple-ups in the same operation. To prevent stacked finished products from piling up too high due to the wire staples in their spines, the machine can insert the staples in offset positions at the touch of a button. The Stitchmaster ST 500 operates at speeds of up to 13,000 cycles per hour.

www.heidelberg.com/ST200
www.heidelberg.com/ST500



TECHNICAL HIGHLIGHTS

Both the Stitchmaster ST 200 Compact and the Stitchmaster ST 500 are based on the same technology platform and can be extended to meet changing market requirements. This means that, when purchasing a machine, customers do not have to commit to a fixed performance profile for a lengthy period.

Individual servo drives

The servo drives for all key components, such as the feeders, saddle chain, stitcher and trimmer, are the centerpiece of saddlestitchers from Heidelberg. They allow users to interrupt a job that is already under way and save all the precision settings in order to fit in an urgent order or perform repeat jobs.

Stitching heads

The high-quality materials used for Heidelberg stitching heads minimize wear and maximize reliability in production. The stitching heads also include a range of new features, such as a lateral, far shorter wire feed and shorter stitch spacing of just 45 millimeters (1.77 inches).

Intuitive touchscreen

The two models are operated via a touchscreen with easily accessible basic settings, easy-to-understand icons and a helpful makeready assistant. Optical systems that check, for example, whether all the sheets have been collated correctly are available as an option.

Trimmer with new processing options

The trimmer on the ST 500 can be equipped with additional tools. The ST 500 can be used, for example, to produce a calendar in two-ups, with simultaneous hole punching and repeat separation in a single operation.

Surface coating

Chromium-plated sheet guiding elements in the feeder area reduce the risk of marking and offer optimum quality from the outset.



COLORFUL CONVERSION

The Prinect Multicolor Toolset software converts spot colors to process colors and vice versa. When simulating spot colors, CMYK colors and one to three additional colors are used in the color separation, according to the motif and the size of the color space that is required. Users have a free choice when it comes to the screen and additional colors. It is important to use inks that are as light-fast as possible, define a fixed color sequence and ensure the specified Multicolor profile parameters remain consistent. This means short runs can be produced profitably again, particularly when printing on an Anicolor press, which counts extremely low waste and highly consistent ink application among its strengths.



Standard 4c + spot color(s)

Replacing spot colors with process colors plus one, two or three additional colors makes the printing of short runs more cost-effective. By printing in the extended color space, images appear brighter and more saturated, thus significantly increasing their resemblance to the original.



3c + spot color

Conversely, replacing a process color with a spot color enables users to depict specific shades more precisely.

Info poster (enclosed):

Comparisons with the Pantone fan show that spot colors can be simulated perfectly using the Prinect Multicolor Toolset.

Dear Readers,

How do you think the Prinect Multicolor Toolset would benefit your print shop? Send your comments to: heidelberg.news@heidelberg.com

www.heidelberg.com/multicolor

4 PLUS 3

Prinect Multicolor Toolset. It may not add up mathematically to say $4 + 3 > 100$ but it's certainly cost-efficient. Using CMYK colors – plus orange, green or blue – to simulate hundreds of spot colors definitely pays dividends. And it's the Prinect Multicolor Toolset that makes it all possible.

S

hort runs and changing spot colors cost packaging printers a lot of time and eat into their profits. After each job, ink has to be removed and then the inking units need to be washed and refilled. The Prinect Multicolor Toolset eliminates these steps and reduces downtimes simply by continuing to print using the standard process colors. "This enables companies that process over 100 different spot colors for the pharmaceutical industry, for example, not only to increase their profitability but also to cut their procurement and warehousing costs," explains Product Manager Bernd Utter.

The efficient Prinect Multicolor Toolset provides the "recipe" needed to produce the spot colors of the branded goods manufacturer using the standard process colors. During this process, the software calculates the required shade based on CMYK data and no more than three additional colors. Color separation takes place automatically using the stored ICC profiles. The deviation from the required CIEL*a*b* value is displayed as a ΔE value and can be adjusted as necessary. A preview of the shade as separated by Multicolor and compared to the original color is

also provided, thus giving the user full visual control. "One or two additional colors are often enough. Profiles with seven colors are quite rare," says Utter.

Most packaging printers already have a press with the requisite number of inking units. And, there is no need to change their established processes. Any screen can be used. What's more, the Prinect Multicolor Toolset can also be used with the Heidelberg workflows and the standard packaging workflows. As more than four process colors are processed, the tolerances for color fluctuations are lower. "Precise and standardized processes are a must," says Utter, a Multicolor expert. He therefore recommends the Print Color Management service from Heidelberg (see page 36). The principle of standardization also extends to the selection of three additional colors. "Rather than stipulating shades, we work with customers to determine the colors best suited to their production operations," says Utter. This investment pays dividends. Combining Print Color Management with the Prinect Multicolor Toolset helps to cut makeready times significantly – while ensuring production is absolutely stable. ■

FOCUS INNOVATION

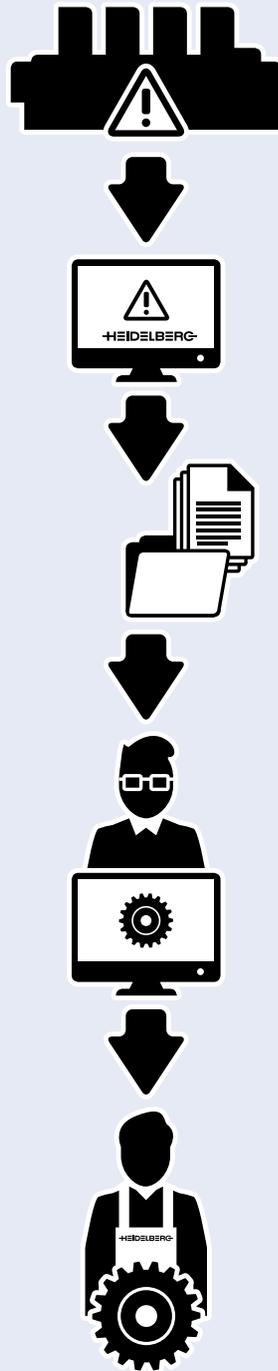
REMOTE MONITORING

Remote Monitoring continuously monitors the status of presses. Using online parameters from drives, sensors and modules, Heidelberg can identify any irregularities early on and respond to technical problems before they occur.

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essages about approaching limits, trends and voltage fluctuations arrive at the service center at Heidelberg, where they are checked and evaluated by a service expert. “The Prinect Press Center sends the data via the Internet, thus ensuring we always have an overview of all of a press’s key performance parameters,” explains product manager Kerstin Rabbel. “Remote Monitoring enables us to practically monitor the heartbeat of connected presses. This is made possible by a service agreement where the customer consents to data transfer.” Rabbel is devising the new service offering from Heidelberg, which is currently in the pilot phase, in conjunction with the technical project team. Service experts monitor the connected presses, evaluate the reported irregularities and use this data to produce diagnoses. “Where values give cause for concern, we can take countermeasures early on to ensure a fault doesn’t occur in the first place,” says Rabbel.

To make the service process even more efficient and faster, the service engineers automatically receive proposed solutions and implement these in close consultation with the customer in such a way that they cause the least disruption to production. Using smart bundling, the work can often even be scheduled for times when service or maintenance is already planned. This cuts the number of engineer callouts and thus also reduces unscheduled press downtimes. “Remote Monitoring is an innovative offering



1. The Prinect Press Center transmits all key performance parameters over the Internet to the Heidelberg service center. 2. A service expert checks and evaluates data that gives cause for concern, such as voltage fluctuations or values close to specified limits.
3. Service experts assess the reported irregularities and produce diagnoses.
4. Possible solutions are discussed with the customer and a suitable time for maintenance is agreed before any possible fault develops.
5. Using smart bundling, the work can often be scheduled for when servicing or maintenance is already planned.

that is unique in our industry and allows us to systematically expand our position as a remote service pioneer,” says Rabbel. “The rapid response to an unexpected fault is followed by proactive callout management to boost press availability.”

Around 15 percent less unscheduled downtime

Another advantage is that Heidelberg can also use the transferred values to detect whether production processes are running optimally. “In cases where they aren’t, we contact the customer and make suggestions on optimizing the production processes or offer training courses to meet specific needs,” says Rabbel. Customers are also regularly informed in a detailed report on key parameters such as the totalizer reading, energy consumption of individual units, printing speed and statistics on the performance of their press.

Positive developments can already be seen in the pilot phase of the project: “Initial evaluations show that unscheduled downtimes are cut by around 15 percent,” explains Rabbel. Remote Monitoring is currently being tested and undergoing further development with pilot customers in Germany, the U.K. and the U.S. This will be followed by the global market launch. ■



Kerstin Rabbel
Product Manager,
Heidelberg Druckmaschinen AG

Kerstin Rabbel is working with a technical project team to design the new Remote Monitoring service portfolio. Service experts monitor the performance data of connected presses, produce diagnoses in the event of irregularities and take proactive countermeasures to ensure faults do not occur in the first place. The project is still currently in the pilot phase.

www.heidelberg.com/remotemonitoring

PERFECT BINDING

Tips and Tricks adhesive binding. It is not always easy to perform adhesive binding on soft cover brochures – and it is frequently a cause of complaint.

The problem is that the first and last pages are often not held effectively in place in the spine glue when they are opened. What's more, the top edge of the glue film can be seen around the notch – which is not a very pretty sight. The reasons behind this problem are many and varied – from the physical properties of the paper and glue themselves to incorrect material combinations or operating errors. But so, too, are the solutions. The most important of these are described below.

SYMMETRICAL FEED

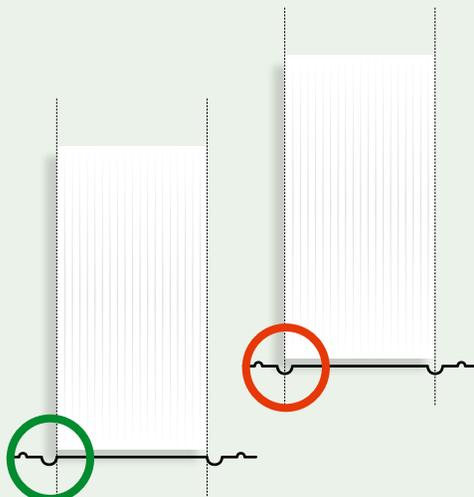
Feeding into the milling cutter must be symmetrical to prevent the book block being deformed or processed on one side only. With folded sheets where the spine side of the pile is higher, the lower guide rails at the front and back must be set accordingly to take this into account. This is the only way to ensure that the block is fed straight into the milling cutter. It has also proven beneficial to make sure that the part of the book block that hangs down outside the clamp is ideally less than 9 mm.

THE RIGHT SETTINGS

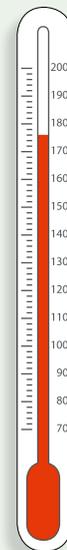
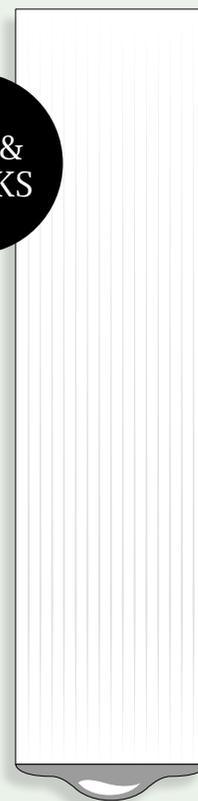
The basic settings for the upper and lateral counterblades in the main milling cutter and for the leveling and notching tools must match the settings in the operator instructions. For example, at maximum block thickness, the leveling depth should be set to approximately 0.5 mm (0.020 in). The depth of the fine notch should lie between 0.1 and 0.2 mm (0.0039 and 0.0079 in). This ensures effective roughening of the sheet edge and good glue adhesion. The use of fine notching is essential with PUR products in particular.

If the chosen clamping effect demands the use of rough or normal notching instead, the ideal spacing from notch to notch is between 6 and 8 mm (0.24 and 0.31 in). It is also important to set the brushes correctly to ensure any dust on the spine is removed effectively.

Additionally, sharp and clean milling tools must be used to prevent untidy cuts and shedding at the rear edge of the block, which can lead to uneven glue application.



TIPS & TRICKS



SPINE AND SIDE GLUING

With all hotmelts, the glue always becomes thicker in the middle of the block, causing what is known as the coat-hanger effect. Consequently, the glue is spread most thinly in the critical area at the block edges. The solution is to use controlled glue penetration to a depth of 0.1 mm (0.0039 in) to press a little glue between the individual pages and achieve strong adhesion at the block edges.

The success of this solution depends on two factors – the correct temperature of the glue and optimum settings made on the spine gluing unit. The application temperature for standard hotmelts must be at least 170 °C, preferably 175 °C (on the top edge of the roller when the doctor blade is open). The temperature of the side glue must be between 170 °C and 180 °C and the glue should be applied at a thickness no greater than 0.1 mm (0.0039 in). The aim of spine gluing is to seal the sheet edge with the first roller.

The following settings for the glue pan deliver the back pressure needed for this and these may need adjusting depending on the particular application:

Gluing roller 1

Blade opening (depending on notch depth): 0.6 to 0.7 mm (0.024 to 0.028 in)
Distance from block to gluing roller: 0.5 mm (0.020 in)

Gluing roller 2

Blade opening: 2 to 3 mm (0.079 to 0.12 in)
Distance from block to gluing roller: 1.5 mm (0.059 in)

Spinner roller

Distance from block: 0.7 mm (0.028 in)

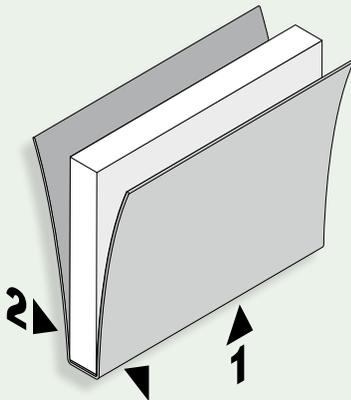
SCORING

So that the cover can be laid easily around the block edge, the scoring must be as sharp-edged as possible without breaking the board and printed surface and without any laminate that may have been applied peeling off. Position of the scoring relative to the book block is key. Many users set the score in the middle of the block edge, but this causes great stress and results in a strong lever action on the block edge. With heavy grammages in particular, it therefore makes sense to position the scoring closer to the front and reverse of the cover.

PRESSING ON

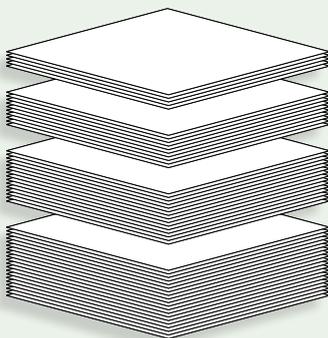
The right timing is essential when it comes to pressing on. To ensure the spine is sharp-edged and that all the content pages remain fixed in place in the spine glue, the pressing-on process must first be applied onto the spine from below before switching to the side.

On the Eurobind Pro in particular, the operator can adjust the individual drive technology to influence this specific factor. As the first and last pages are normally pushed upwards on the cover by the movement of the lateral pressing bars, the first pressing station in the Eurobind Pro is equipped with a pressing table without lateral pressing bars. This way, the spine glue has time to harden somewhat and fix the pages more securely in place on the way from the pressing table to the pressing station before the book block is fully pressed from below and from the side.



THE RIGHT MATERIAL MIX

The combination of materials plays an important role. Thin content paper (e.g. 60 gsm) combined with a thick cover (e.g. 350 gsm) plus cellophanning always leads to the problem with the first and last pages as described above. Therefore, the cover grammage, flexural strength and volume have to be taken into account. Here are a few guideline values to ensure the optimum ratio between block thickness and cover weight:



- ▶ Up to 5 mm (0.20 in): 150–180 gsm
- ▶ 6–10 mm (0.24–0.39 in): 200–220 gsm
- ▶ 11–15 mm (0.43–0.59 in): 250–270 gsm
- ▶ Over 15 mm (0.59 in): 300–350 gsm

TO PERFECTION

“My father had a rather autocratic management style. It’s important to me that all the staff can get involved with their ideas and suggestions, and that we help each other to ensure our joint success.”

JANET STEINER
OWNER AND CEO,
THORO PACKAGING, CALIFORNIA

PAGE 26

Page 36
Three Good Reasons –
Certification to ISO 12647-2

Page 38
New Series – Production
of the Speedmaster XL 75
Anicolor gets under way





AND



ACTION

Thoro Packaging, California. Many package print shops have no motto at all, but Thoro Packaging, in Corona near Los Angeles, has no fewer than three. “If you don’t make dust, you eat dust” is one of them – and that’s far from being the only thing that sets Thoro apart from others. The company boasts a whole host of stand-out features, including a female boss, a horse as a mascot and a 140-strong workforce that makes Thoro something very special.



Strong women, miniature horses, a big truck and happy staff wherever you look. The Thoro packaging print shop in southern California produces and distributes packaging for customers from the medical sector and the cosmetics industry.



W

hen Janet Steiner enters the room with a smile for everyone, she says “Hello, I’m Jan. Welcome to Thoro.” She stands over 5 feet 10 inches tall in her heels and is a little bit like her denim jacket. On the back are the words “We can do it!” – another of Thoro’s mottos. Underneath is a picture of “Rosie the Riveter” – a poster character who successfully recruited young American women to work in industry during the Second World War. With her sleeves rolled up and proudly



CHERI LILES

has been working at Thoro for 15 years and is now in charge of the seven-strong prepress team. With every job, she tries to be two days ahead of her print shop colleagues to enable them to work more flexibly. She considers Thoro to be part of the family and a great place to work. “The people here care about each other.”

“WE HAVE SERVICE AGREEMENTS FOR ALL OUR PRESSES, BECAUSE WE DEPEND ON VERY HIGH AVAILABILITY, BUT ALSO BECAUSE HEIDELBERG HAS SOME OF THE COUNTRY’S BEST SERVICE ENGINEERS AND I CAN TOTALLY RELY ON THEM.”

MIKE JONES,
PRINT SHOP MANAGER
AT THORO PACKAGING



MIKE JONES

is in charge of the print shop and has now been working at Thoro for eight years. He is delighted about the new Speedmaster XL 106 and dreams of driving the latest Corvette with a horsepower of over 400. He is proud of being largely self-taught, saying, “That’s the American way.”

important to me that all the staff can get involved with their ideas and suggestions, and that we help each other to ensure our joint success.”

Folding cartons rather than fashion design

And Thoro is indeed successful. When Janet took over from her father in 1982, the manufacturer of printed folding cartons was generating revenue of USD 2 million. Now, it’s nearly 30 million. Thoro and its 140 staff in Corona produce folding cartons for customers from the medical, pharmaceutical, cosmetics, software and confectionery industries. Most customers are based in Southern California and the Los Angeles region, which is home to some 17 million people. But the company also supplies customers in Northern California, Arizona, Las Vegas and Hawaii, among other states and countries, from its location east of Los Angeles.

showing off her biceps, Rosie is still regarded as a feminist symbol of woman power to this day in American industry. A small detail on Janet’s jacket is different from the original, though – a red heart tattoo on Rosie’s biceps containing the word “Thoro.”

As already mentioned, the denim jacket says something about Janet. The popular cliché that women would run companies differently, because they combine drive with female empathy, holds true with her. But when asked what it means that the president of Thoro is a woman, she replies that such clichés and their validity don’t matter and explains that different people have different management styles, whether they are men or women, and the best thing to do would be to ask the staff what she does differently. She does give a little clue, though. “My father had a rather autocratic management style. It’s

Thoro’s production operations benefit from ultra-modern equipment, including a brand new carbon-neutral, eight-color Speedmaster XL 106 with dual coating unit that is equipped with the Prinect Inpress Control color measurement and control system and the Prinect Inspection Control sheet monitoring system. This stands in sharp contrast to the company’s very modest beginnings 47 years ago. Janet’s father, Macy Dabek, spent many years working as a platemaker. He saved hard and, when he deemed the time to be right, he purchased a small press and a die cutter. Together with his wife Helen, who for some time resorted

› to using a glue bottle to hand glue the folding cartons, he founded a small package print shop in 1967, which he named Thoro Packaging. “Thoro” is a reference to thoroughbreds, the world’s fastest racehorses, and also a play on “thorough” – a nod to Thoro’s full spectrum of services and high-quality approach. Above all, though, it explains why Thoro has little statues of horses everywhere – on desks and in display cases – along with jockeys’ jerseys in glass cabinets hanging on the walls and why, on special occasions, a member of their staff slips into a horse’s outfit and plays the mascot.

The business grew, but Janet initially never dreamed she would one day take over. “I was 18 when my father founded Thoro. Back then, I was interested in fashion. I took a few courses and designed clothes,” she reveals. Soon, though, when she started helping out with little jobs and then became a paid member of the sales team, she began to love her work. “Then my father retired for health reasons in 1982 and the Board of Directors elected me as CEO. It was then that I finally realized, if I hadn’t already, that I’d never again design fashion items, only folding cartons,” she says.

**“IN 1982,
THE BOARD OF
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FASHION ITEMS,
ONLY FOLDING
CARTONS.”**

JANET STEINER
OWNER AND CEO OF
THORO PACKAGING

Thoro – or, more accurately, of the people who work there. This is evident not only in the friendly and constructive team communication in the warehouse, the production section and the offices. It is also demonstrated by a number of social initiatives, most of which have been suggested by the staff and gratefully taken up by Janet.

One example is the Care Club. In their desire to help their colleagues, Thoro’s employees offer to donate vacation hours, or prepared meals to staff members stricken by illness, injury or family tragedy. Another example that is typical of Thoro is the Steiner Diner. Janet regularly invites six to eight employees from the various departments to a restaurant to discuss what can be improved and how in a relaxed atmosphere over a meal.

Something else that is typical of Thoro is the fact that, whenever there is a vacancy to be filled, the company first sees if there is a suitable candidate among the existing workforce. “I believe you should make a point of nurturing staff to give them the opportunity to grow and develop to be the best they can be,” says Janet.

The people make all the difference

As a result of this policy, quite a number of staff at Thoro are in completely different roles to the ones they occupied a few years ago. Brandon Roberts is one example. He can only be contacted by phone, because he is at home recovering from a knee injury he sustained while playing American football. When Brandon started at Thoro 14 years ago, his job was as a feeder on the printing press. Now, the 37-year-old production manager is primarily responsible for coordination and quality assurance for all print jobs. That is one of the main reasons Brandon is pleased about the eight-color Speedmaster XL 106 with dual coating unit, which just recently joined two other six-color Speedmaster CD 102 presses with coating units. “Our new flagship press can print 18,000 sheets per hour and, thanks to Inpress Control, the first sheet looks exactly the same as the last. What’s more, with Inspection Control we are assured of defect-free production and can offer our customers in the cosmetics sector more surface finishing options. But, any print shop can buy an XL 106. Ultimately, it’s down to people how a product looks in the end. They’re the most important factor in our success and, as I see it, that includes good partnerships like the very special relationship we enjoy with Heidelberg,” he says. ›



MACY & JANET STEINER

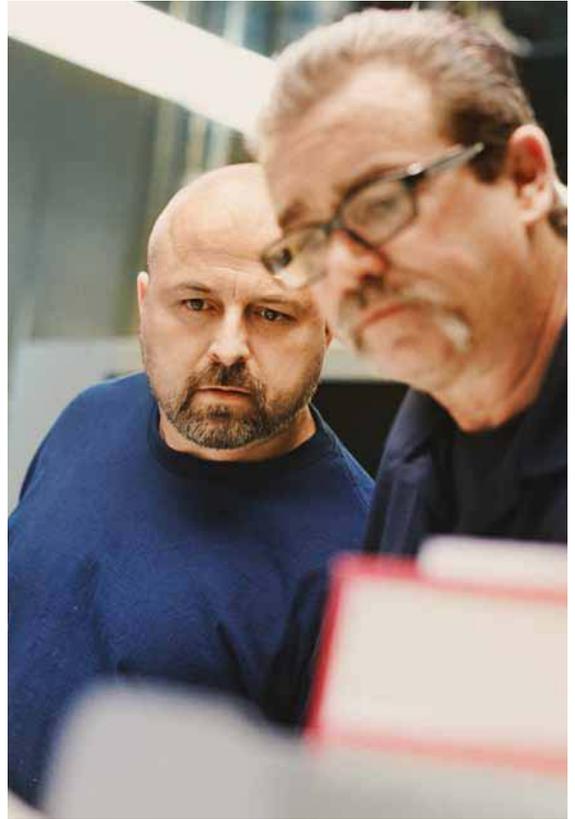
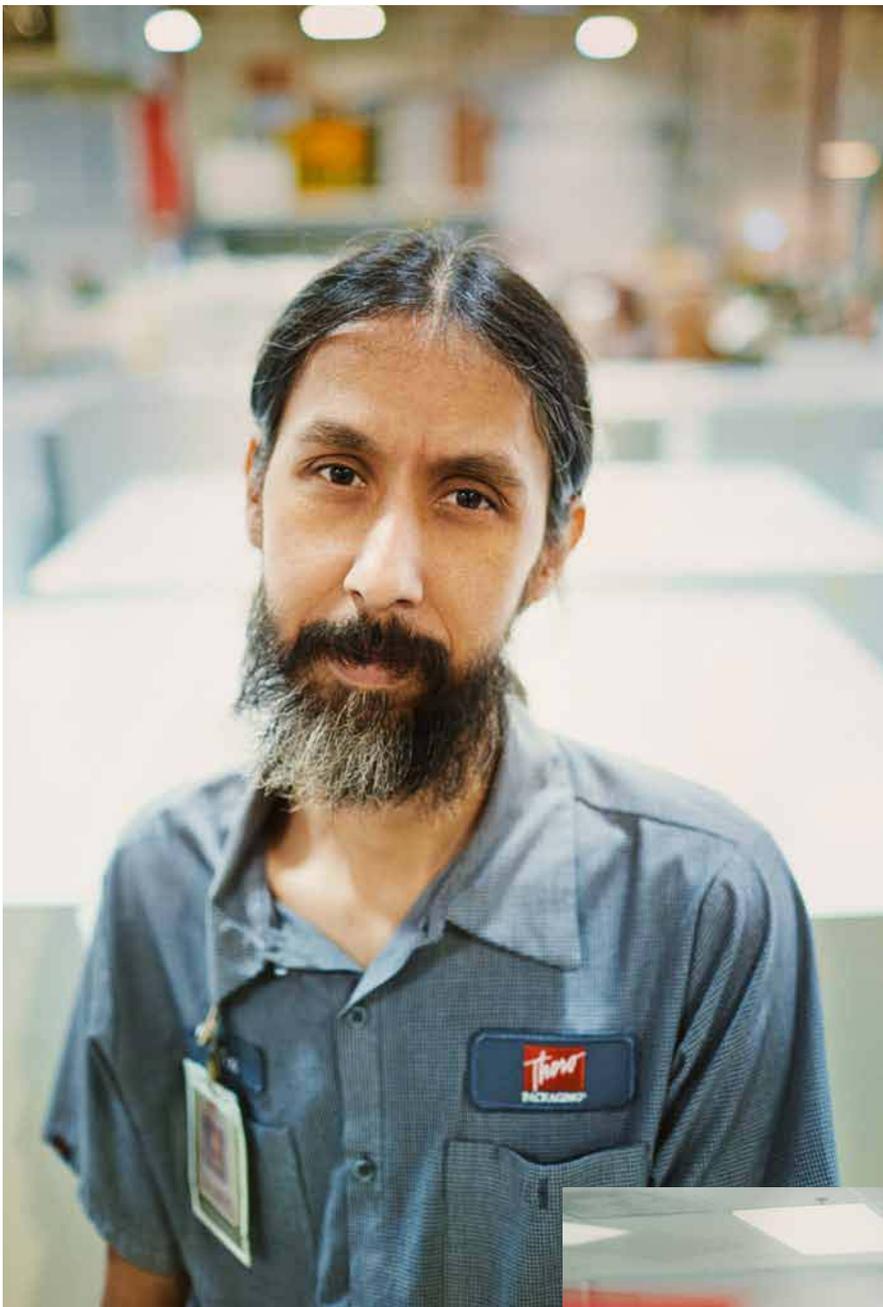
Three generations of Thoro Packaging – the framed photo is of Macy Dabek, who founded Thoro Packaging in 1967. Janet took over the print shop from her father in 1982. On her left is her son Macy Steiner. He worked for a time in Wolfsburg, speaks fluent German and is now the print shop’s General Manager.

But knowing that design is part of and creates identity, Janet soon invented the third of Thoro’s mottos: “It’s not just a carton. It’s your brand.”

Sharing, helping and nurturing

With a view to quickly finding her way in the fiercely competitive market, Janet got in touch with owners of folding carton companies located outside California. “I wanted to find out how to run a folding carton company successfully, which materials are important, how to optimize processes, what works and what doesn’t,” she recalls. “I was keen to learn and was able to do so, because there were and are so many wonderful people sharing their knowledge with me,” she continues.

The very well-developed culture of sharing, and the willingness of each and every individual to help, is a key characteristic of



The full-service print shop produces folding cartons in runs of 300 to 150,000 – sometimes even more – on three Heidelberg presses. The latest flagship machine in the pressroom is a Speedmaster XL 106 that offers the company new surface finishing options and prints up to 18,000 sheets an hour.



Self-assured, open and proud – many of Thoro's employees now have different roles to just a few years ago, because they are continuously nurtured and new vacancies are filled internally as often as possible.



› A further example is Janet's son, Macy Steiner, who worked at Volkswagen in Germany for a while after completing his business management and psychology studies. Macy is now General Manager of Thoro. The thoroughness and efficiency for which Germany is famous made such an impression on him that he is endeavoring to establish a similar culture at Thoro through training sessions and workshops. Then there's Ralph Martinez, who joined Thoro's production team as part-time summer help 24 years ago, worked his way up and is now in charge of the five-strong packaging design department. The 42-year-old devotes part of his working day to developing innovative packaging concepts. He also keeps an eye out for such concepts on his trips to Europe and throughout the United States. In addition to this, Ralph spends a great deal of time improving production efficiencies for our customers by reducing the size, the number of components of a package, thus reducing waste and the carbon footprint of folding cartons.

He works closely with Mike Jones, who joined Thoro eight years ago as a production planner and is now in charge of the printing department. When he was younger, Mike worked at a different company in the postpress section. He then attended several courses and workshops to become a printer as quickly as possible. "Quite simply, the boys on the presses had nicer cars," he says with a laugh. Mike and his team get through an average of around 5,000 jobs each year. The shortest have runs of just 300 sheets and the longest around a million sheets, but Mike reveals there are rarely more than 150,000 sheets per job. Most jobs for the cosmetics industry and some for the medical sector are printed on the Speedmaster XL 106, because these folding cartons are almost always finished with UV, spot or drip-off coatings, or multiple coatings. Jobs for the confectionery industry, on the other hand, are usually produced with conventional or vegetable-based inks on the two six-color presses.

It's getting late. As Janet is leaving the office at around six in the evening, she also mentions how important environmental protection is to her, revealing that Thoro is FSC certified and offers carbon-neutral production to their customers as an option. Furthermore all paper waste is recycled. "We also source 100 percent of our power from wind energy, but that doesn't mean we have windmills on the roof," she jokes. Janet speeds off in her Chevrolet Volt, the hybrid car she would love to replace with a Tesla. Then she could stir up even more dust when setting off! ■

"ANY PRINT SHOP CAN BUY A SPEEDMASTER XL 106, BUT ULTIMATELY IT'S DOWN TO PEOPLE HOW A PRODUCT LOOKS IN THE END. THEY'RE THE MOST IMPORTANT FACTOR IN OUR SUCCESS."

MIKE JONES,
PRINT SHOP MANAGER AT
THORO PACKAGING



ANDREA PERCY

has been part of the marketing team for nearly two years. She prepares for trade shows, looks after the company's website and provides sales staff with all the information and documentation they need for their day-to-day work. Andrea is 31 years old, lives in Corona, is married, and has a dog and a cat that she refers to as "my children."



RALPH MARTINEZ

joined Thoro 24 years ago as a production temp. He is now in charge of the packaging design department and is constantly on the lookout for new ideas. "I always keep my eyes open when I'm on my travels in the States or Europe." In addition to this, he organizes an annual competition after Christmas. Staff bring in unusual packaging and a winner is chosen.

Thoro Packaging

Corona, California, United States
info@thoropkg.com

www.thoropackaging.com
www.heidelberg.com/XL106

Speedmaster. Unbeatable.



Speedmaster.
Unbeatable.

While others talk, we print. Use your smartphone or tablet to download the free app at SpeedmasterUnbeatable.com and scan the gray area on the left. Find out more from Heidelberg:

www.SpeedmasterUnbeatable.com



HEIDELBERG

MASTER-PIECE



WELL MADE

Some packaging you simply rip open straight away to get at the contents, but this design is different. It makes you want to take your time, run your fingers gently over the material, inspect the decorative lacing, allow yourself to be enticed and enjoy your anticipation of the product inside. And that was the precise aim of brandpack, the rlc|packaging group's competence center for integrated packaging design, when a customer from the perfume sector asked it to make the packaging into a kind of corsage. The result is a concept study in several variations for luxury creams, scents or other products – a mini masterpiece in which the creative experts in Hanover can take real pride.

Considerable detailed know-how was needed to develop the packaging. For example, a special design was required to create the 3D effect of the lacing. Two material layers one on top of the other and double cushioning to protect the contents provided the ideal solution. The single-component design was first printed on a Speedmaster XL 105-6+LX3. The coating was then applied on a Speedmaster XL 105-8+LYYL-X3 using hot foil embossing for the shiny eyelets. Even though it can be produced in countless variants for any given product, the concept is and remains unique. ■

Show us your very own masterpiece!

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

Heidelberger Druckmaschinen AG
Sabine Langthaler
Kurfuersten-Anlage 52-60
69115 Heidelberg
Germany

3

GOOD REASONS

ISO certification.

There are three reasons for obtaining ISO 12647-2 certification: In addition to being a gateway to working with renowned brand-name manufacturers and agencies, its process standardization also helps cut makeready times and boost productivity.



IDENTICAL REPRODUCTION

In actual fact, ISO certification is merely the icing on the cake when it comes to consistent standardization, because the process-relevant changes are made prior to certification. “Standardized processes must be in place before ISO 12647-2 can be achieved, and we establish these processes beforehand through our Print Color Management service. Afterwards, the ISO standard or any other standard, such as one laid down by a brand-ed-goods or pharmaceutical manufacturer, can be achieved quickly and reliably,” explains Product Manager Bernd Utter. The target values – regardless of whether they are set by the ISO standard or the client – are used as the basis for aligning all processes and equipment, from plate imaging and proofs to printing. To achieve the required result straight away – for identical reproduction of print sheets – all the operator needs to do is select the stored parameters, such as solid tint and dot gain.

- Stored parameters can be used to deliver print results quickly and reliably.
- True color reproduction improves quality and cost-effectiveness.
- Standard-compliant print conditions can be applied to digital printing.
- A standardized workflow creates stable quality across runs and locations.



SHORTER MAKEREADY TIMES

Companies with standardized processes from prepress to the print run eliminate the need for time-consuming color matching at the press. Instead, thanks to strict compliance with defined processes and settings for specific jobs, exact coloring targets can be achieved practically at the touch of a button. Predictable results increase reliability in production and cut waste. "One to two fewer pulls are required for each job," says Utter. "Print shops that consistently return jobs to prepress when the results are not correct the first time are operating on the most profitable basis." Print Color Management is therefore also crucial for business models such as web-to-print, in which every manual intervention reduces the profit margin.

- Elimination of litho work at the press
- Higher throughput and better capacity utilization
- Lower costs due to material and time savings
- More time for complex orders and attracting new customers



GATEWAY TO LUCRATIVE MARKETS

More and more branded-goods manufacturers and agencies are demanding that service providers are certified to ISO 12647-2. It's with good reason, because successful brands need a standardized image. First and foremost, this means using exactly the same colors on every item of packaging, every brochure and any other print products. "ISO certification reassures businesses that quality standards are being met, which opens the door to lucrative orders for print shops. It is becoming absolutely essential for more and more invitations to tender," says Product Manager Bernd Utter. This trend is being driven by two developments. Large companies are having their printing work done in their local markets to save time and reduce costs. And a company's image needs to be identical both worldwide and over numerous print runs – even short ones. Here, too, the ISO standard provides the necessary reliability in production: "The required color space is achieved reliably. Clients can rest assured that the proof and production run will match. This cuts the time needed for the approval process significantly," says Utter.

- Certification qualifies companies to join the top ranks of print service providers.
- Anyone who joins this exclusive club can present their company and services on the Heidelberg Website.

CERTIFICATION BY HEIDELBERG

Heidelberg performs certification to ISO 12647-2 and puts in place the requisite processes for CtP, proofs and presses. This dual role offers crucial benefits: "We know the presses inside-out and understand exactly how to adjust them so that they operate in compliance with the ISO standard," says Utter. This process is undertaken in close cooperation with the customer. All measures are carried out jointly and key elements of the workflow are documented in detail. As a result, customers know how to standardize other processes and where they need to make additional adjustments if values are ever incorrect. Certification is a two-stage process. First, Heidelberg measures the values at the customer's site. Next, print sheets and proofs are sent to the Heidelberg ISO certification laboratory for checking. If the values are confirmed, the customer is awarded the certification, which is valid for 24 months.

In conclusion, Utter reveals another important detail: "A revised version of ISO 12647-2 came into force at the start of 2014. The requirements for coloring and paper have been adapted to the latest print conditions. The PCM teams at Heidelberg are ready to help print shops with the switchover."

SIX STEPS TO CERTIFICATION WITH HEIDELBERG:

1. Clarify need for action and measures
2. Standardize processes
3. Optimize prepress and press
4. Train staff
5. Documentation
6. Certification

NEW SERIES

The Speedmaster XL 75 Anicolor was taken into series production at the start of the year. Heidelberg has taken a completely new approach to the development and assembly of this new medium-format press – join us as we find out why.





The hall in Wiesloch-Walldorf, where the new Speedmaster XL 75 Anicolor has been in series production since the beginning of 2014, is almost 400,000 square feet (36,000 square meters) in size.

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all 10 is located in Wiesloch-Walldorf, eight miles south of Heidelberg. It is one of the company's biggest assembly halls, covering almost 400,000 square feet (36,000 square meters). Like all the other halls, it is incredibly clean and surprisingly quiet. Pleasantly cool even on hot summer days, the air smells of a mixture of lubricants, metal, hot cutting edges and drill holes. Numerous castings are stored in the western part of the hall. There is little to indicate that, many process steps later, these cast parts and some 100,000 other components will be used in the assembly of one of the new Speedmaster XL 75 Anicolor presses that Heidelberg has been producing here in series since January 2014.

Although some of the steps involved in assembling the press are new to the fitters, most of the work is routine. For example, every assembly process starts with the erection of the side frames. Like the bases and cylinders, the side frames are produced at the Heidelberg foundry in Amstetten, which is located around 45 miles (72 km) east of Stuttgart. They are solid, reach to about head height and weigh up to a ton. These impressive stats are crucial, because later these side frames – along with the base – will have to absorb the huge rotational forces of the rollers and impression cylinders. Although just one of many work processes, this initial assembly phase lays the foundation for the legendary Heidelberg quality. “All the details, like the drill holes for the roller cylinder bearings, permit a tolerance of just a few hundredths of a millimeter,” explains Giuseppe Calabrese, who is responsible for quality.

Subsequently, the individual parts for the machine's basic structure are screwed and pinned together and stabilized with cross-members. In the next step, a machine rotates the basic structure 90 degrees to the side so that a crane can insert the cylinders – some of which weigh between 450 and 1,100 pounds (200–500 kg) – vertically into the press's side frame.

Pooling expertise

The Speedmaster SX 52 Anicolor – the first machine with a zoneless short inking unit – was launched on the market eight years ago. Since then, it has gained a reputation as an excellent alternative or the perfect >



› complement to digital presses. It therefore came as no surprise that Heidelberg soon started thinking about expanding this technology to the medium format. “However, the technology transfer from the SX 52 Anicolor to the larger format involves far more than just upscaling,” explains product manager Frank Süsser. “We essentially had to come up with some new developments.”

To drive the project forward as efficiently as possible, staff from Research and Development, Product Management, Manufacturing, Assembly and Service worked together almost from the very beginning. Their shared objective was to develop a quick and simple assembly process and to identify and eliminate any sources of error.

“This project broke new ground in terms of communication between the Development and Assembly departments,” says assembly planner Mathias Rupp. “Although the workload is far higher in the beginning, it pays dividends at the end,” adds section manager Marcus Schmidt. “As a team, we can discuss topics quickly, come to lasting agreements and work through any unresolved points. This motivates the whole team.” Calabrese and a handful of co-workers listen attentively and nod in agreement that everyone really pulled together in the run-up to the series launch of the Speedmaster XL 75 Anicolor.

Another benefit resulting from this intensive collaboration was that the assembly team was able to pass on over 300 proposals for design improvements directly to the developers. This meant that the pilot series models were even more advanced than normal. As a result, this approach is to be adopted as standard at Heidelberg in the future. “Pooling expertise from different areas at such an early stage proved extremely effective,” says Jürgen Heller, head of quality management for the medium format. “We want other projects to benefit from this approach in the future.”

100,000 parts in six and a half days

Back to assembly. The subsequent work processes take place on an assembly line that is unlike any other. In fact, the Heidelberg conveyor belt is a rolling floor that moves forward a few feet every 38 minutes. The hall is equipped with four of these rolling floors, each around 165 feet (50 meters) long and moving in parallel. Mechanical components are assembled on the first three, with electronic components following on the last one. At the end of each assembly line, a forklift automatically picks up the ever bigger printing



“Pooling expertise from different areas at such an early stage proved extremely effective. We want other projects to benefit from this approach in the future.”

JÜRGEN HELLER
HEAD OF QUALITY
MANAGEMENT FOR
THE MEDIUM FORMAT



“The technology transfer from the SX 52 Anicolor to the larger format involves far more than just upscaling. We essentially had to come up with some new developments.”

FRANK SÜSSER
PRODUCT MANAGER

unit, takes it to the neighboring roller conveyor and leaves it to the next team. Only skilled workers are used to assemble the Speedmaster XL 75 Anicolor. These include industrial engineers, fitters and other trained metal-workers. Many are former apprentices from the company’s own training workshop.

The printing unit takes shape step by step. Operating rods are installed for adjusting the thicknesses of different substrates. These are followed by a whole series of gears whose setting and interaction require a great deal of dexterity. The next components include grippers, ink fountains, pneumatic components, conventional components and state-of-the-art electronic components, which are mainly developed and produced by Heidelberg. Levers and rotating parts primarily from the Brandenburg plant are next to be installed.

At the end of this assembly line process, which lasts exactly six and a half days, the pneumatics and electronic components are checked using a computer program. Manual checks and tests are performed time and again during the assembly process itself. “At the start of series production in particular, it is hugely important that no mistakes are made,” explains Schmidt.

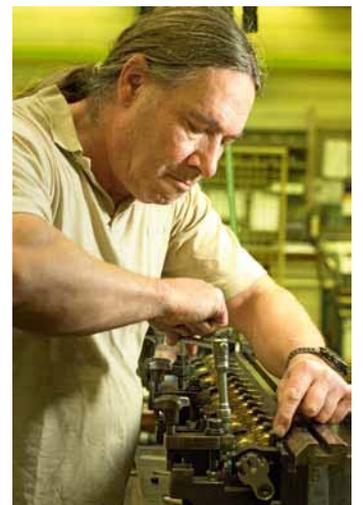
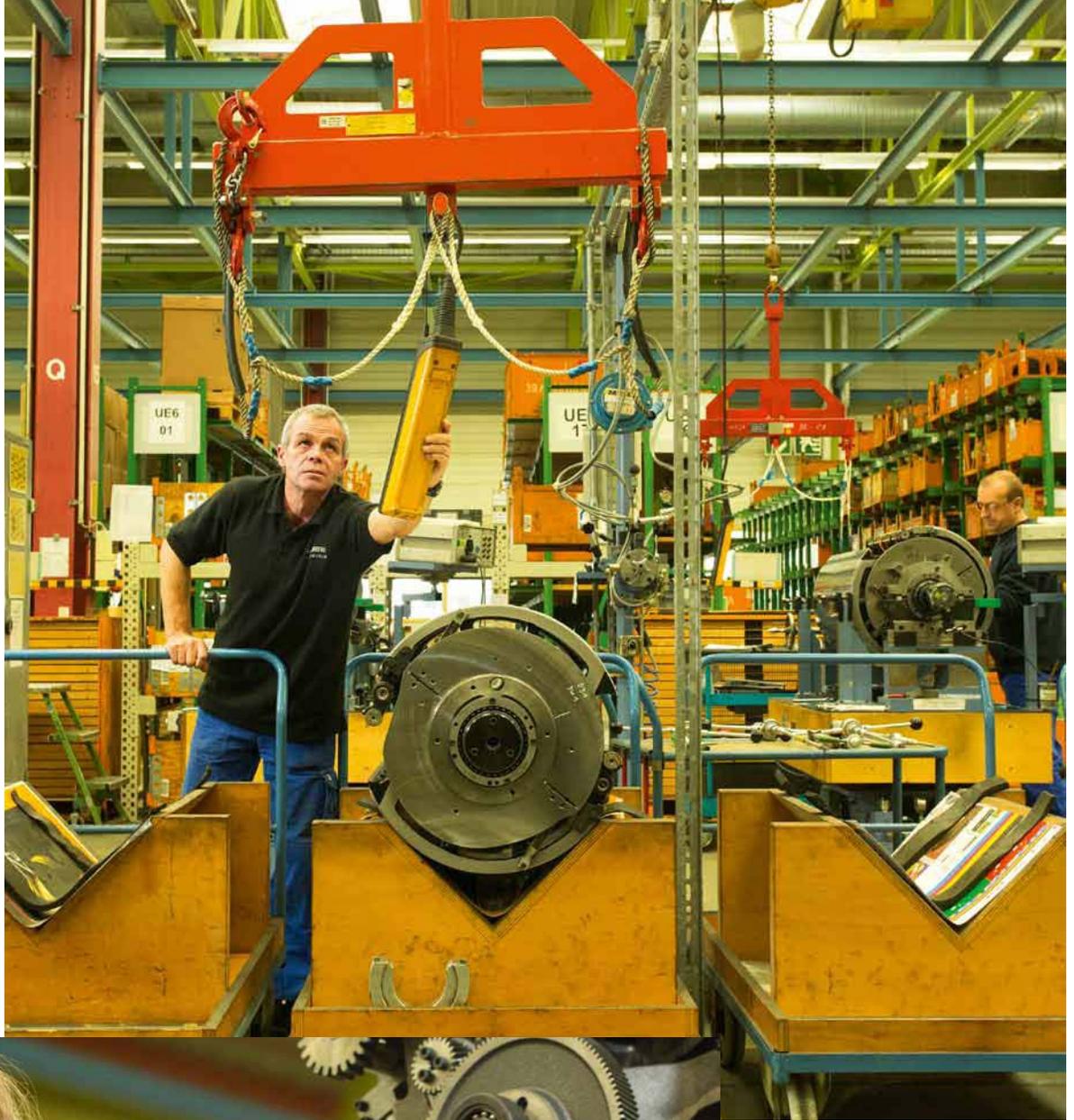
Special forklifts transport the finished printing units to the final assembly line at the opposite end of the hall, where they are lined up one by one like toy soldiers. This way, flange-mounting the printing units is like child’s play.

When the cables for the electronics and the tubes for pneumatics are connected, four, five or six units are gradually transformed into a single fully functional unit. The assembly process is almost finished once the feeder and delivery have been installed. By this time, between 5,000 and 6,000 different parts have been installed to create a Speedmaster XL 75 Anicolor, including a good 100,000 individual components. The special screen roller – the centerpiece of every Anicolor press – is also installed here. Carefully and very slowly in the beginning, the machine is started up and put through its paces during eight hours of continuous operation.

Not one machine leaves the factory for the customer’s site without first having undergone numerous print tests over several days to check all components and eventualities. Once a machine has passed the comprehensive series of endurance tests – maybe with a minor adjustment here and some fine-tuning there – it is broken down into its individual printing units again. It is then sent by truck, train and often also ship to customers around the ›



To ensure there are no errors, especially at the start of series production, the pneumatics and electronic components are checked using a computer program at the end of an assembly line process that lasts exactly six and a half days.



Only skilled workers are used to assemble the Speedmaster XL 75 Anicolor. These include industrial engineers, fitters and other trained metal-workers. Many are former apprentices from the company's own training workshop.

90 50 50

Just like its smaller sister model, the Speedmaster XL 75 Anicolor is also equipped with a zoneless short inking unit. At the start of a new print job, this unit inks up sheets extremely quickly and consistently. As a result, sheets are often already suitable for sale from the tenth copy, which is 10 times faster than with conventional offset printing.

The Speedmaster XL 75 Anicolor will initially be offered as a straight-printing press with up to eight inking units – with or without coating unit and with a print speed of up to 15,000 sheets per hour.

Extensive standardization and automation of the printing process pave the way for cost-efficient production of top-quality short runs – even with difficult print jobs.

Anicolor's successful formula is 90-50-50: 90 percent less waste, 50 percent shorter makeready times and 50 percent higher productivity – key arguments in an increasingly competitive marketplace.

Combining a Speedmaster XL 75 Anicolor with the Linoprint C digital printing system and the Prinect workflow enables the benefits of offset and digital printing to be put to the best possible use.



› world, protected, of course, by the silver cladding that gives a Heidelberg machine its unmistakable, modern appearance. Print shops anywhere in the world can rest assured that their machine will arrive at the agreed time and will quickly be ready for operation.

Up to the start of series production, Heidelberg built six pilot series machines, each fitted with completely different equipment. With these pilot series machines, it takes twice as long to fully assemble a new Speedmaster XL 75 Anicolor. "We consciously take a little more time to train staff in press assembly so that everything runs smoothly in series production later on," explains Süsser. In the future, the entire assembly process should take around eight weeks when series production is up and running at full speed in mid-2014 in Wiesloch-Walldorf. And that's a good thing, because the first machines have already been sold months in advance. ■

[www.heidelberg.com/
XL75Anicolor](http://www.heidelberg.com/XL75Anicolor)

A QUESTION FOR HEIDELBERG



WHY DOES THE ...

... same coating sometimes look lovely and glossy on the first day but increasingly matt as the production run continues, even though all parameters and settings have remained the same?



A common cause of this problem is poor screen roller care. Failure to clean the rollers regularly results in the cells filling with coating residue, which means they are able to pick up less coating and can no longer transfer the required volume. Consequently, coated surfaces

become duller and duller with each sheet.

It is easy to tell whether a roller still has the correct volume using the Capatch disposable tester, which is available from a number of our sales organizations. Capatch is a cell volume measuring strip that is simply stuck onto the screen roller. Running a doctor blade over the surface of the tester forces a precisely metered quantity of calibration liquid out of a capsule and distributes it over the screen roller's open cells. The liquid first flows into the cells closest to the capsule and is then gradually taken up by the remaining cells. The distance the liquid travels determines the current volume of the screen roller's open cells and thus indicates the extent of wear and/or soiling of these cells. The length of the track on the display is inversely proportional to the volume of the screen roller's open cells. Since all Capatch test strips contain the same amount of indicator liquid, reliable measurement of the ink, the adhesive or the coating of the roller volume is always ensured.

Thomas Fischer

Product Manager Consumables,
Heidelberger Druckmaschinen AG

Do you, too, have a question you'd like to ask?

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

ECO

“Our Speedmaster CX 102-5 with LE UV technology maintains a constant speed of 16,500 sheets per hour – with absolute reliability. We are particularly pleased about the amazing efficiency of the LE UV technology. Despite our higher output, it means we use far less energy than before.”

TAKASHI OGINO
TAISEI FUTABA INDUSTRY CO. LTD.,
IN OSAKA, JAPAN

PAGE 44

Page 47

Clean Calculation –
The CO₂ Calculator
from Heidelberg

ULTRAVIOLET



NEW WE WE RE G

LE UV. Low Energy LE UV technology from Heidelberg ensures immediate drying, enables the production of extraordinary print products and opens up new market opportunities for commercial printers by helping them stand out from the crowd – and it's available in all format classes.

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he LE UV process from Heidelberg is intended for innovative commercial printers who want to offer their customers something special. In view of ever shorter run lengths and extremely tight timeframes for processing orders, LE UV offers important benefits.

Dry is dry

The DryStar LE UV dryer system, which was unveiled by Heidelberg at drupa 2012, is more than just an interesting technology and one that is available for all format classes. This system is of particular interest to commercial print shops that have so far been reluctant to move into UV printing, because conventional UV systems consume too much energy in the drying process, generate ozone and do not deliver the same exceptional look and feel as conventionally produced print products. LE UV does away with these disadvantages completely.

This is due to two components that play a leading role in the drying process with the DryStar LE UV. First, fewer UV lamps are required and these consume less energy and work entirely ozone-free in a specific light spectrum. And second, highly reactive inks and coatings are used that are tailored precisely to the wave spectrum of the LE UV lamps and dry completely in just a few milliseconds.

Sheets can therefore be turned immediately, sent to postpress or be personalized on another machine. This process does not require the use of an additional protective coating or the application of powder, thus providing an easy way of meeting the growing demand for uncoated paper. In addition, fast drying on uncoated paper also delivers particularly brilliant results with images and graphics. Unusual substrates and special-effect coating applications extend the portfolio >

› further still. There are therefore many ways for commercial printers to stand out from the competition with unusual ideas or eye-catching surface finishes.

High costs? It depends.

Regardless of the format class, the DryStar LE UV can be operated with between one and three built-in lamps, each with an adjustable output of between 80 and 200 watts. If greater flexibility is required, the tried-and-tested DryStar UV drying systems with exchangeable interdeck dryers and more lamps can be used. These are also approved for use with the LE UV technology.

Several well-known ink manufacturers already have LE UV inks and coatings in their portfolio. Following extensive testing, Heidelberg has added many of these to its range of Saphira consumables. Although LE UV inks and coatings are still considerably more expensive than their traditional counterparts, far less ink has to be applied to the sheet, because it adheres extremely quickly. For instance, up to 25 percent less ink is needed for extremely absorbent uncoated paper and, as a coating does not have to be applied, the substrate retains its full haptic quality.

It is difficult to make a definitive statement about whether printing costs with LE UV are higher or lower than with conventional printing. A precise analysis of the job structure can provide more information. When handling jobs involving low ink coverage and avoiding the use of coating, the higher ink and coating costs can be disregarded. When using LE UV, a coating is only applied when it is needed for surface finishing. However, in this case, customers are usually prepared to pay the additional costs. Lower energy consumption is also a positive factor. Additional benefits include eliminating both long waiting times for postpress and complaints caused by starting these processes prematurely.

Aside from these benefits, the new technology also helps print shops improve their flexibility, expand their portfolio and carve out innovative market niches with potential new customers. ■

LE UV INTERNATIONAL



“With a view to speeding up the production of school textbooks, we decided to purchase a Speedmaster CX 102-5 with LE UV technology. This has led to a significant boost in productivity. The press maintains a constant speed of 16,500 sheets per hour – with absolute reliability. We are particularly pleased with the amazing efficiency of the LE UV technology. Despite our higher output, it means we use far less energy than before.”

🇯🇵 Takashi Ogino

CEO, Taisei Futaba Industry Co., Ltd. in Osaka, Japan



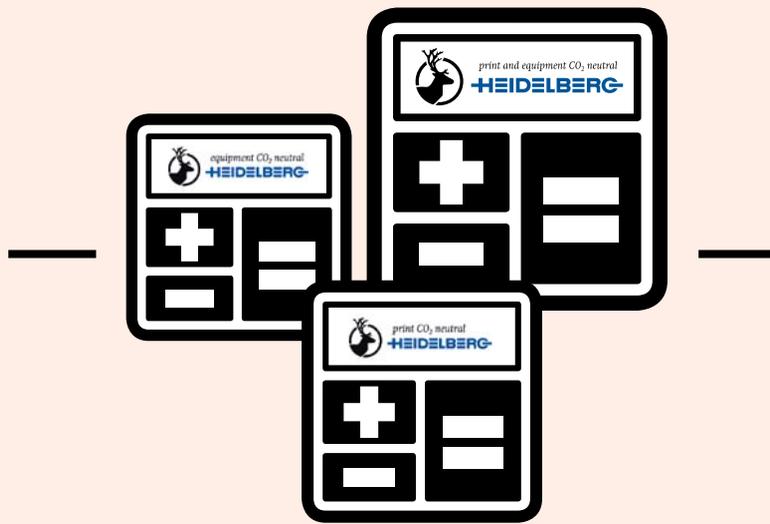
“LE UV technology has helped us win new customers, because we are now able to process orders that proved problematic in the past, such as print jobs with higher ink application, thicker plastics, substrates with sealed surfaces, special self-adhesive substrates and many more. This is an interesting diversification and expansion of our skills and, of course, the range of services we are able to offer new and existing customers.”

🇫🇷 Christophe Capelle

Managing Director of Imprimerie de la Centrale in Béthune, France



The lamps used in LE UV applications benefit from low-energy, ozone-free operation in a specific light spectrum that instantly cures the relevant inks and coatings.



CLEAN CALCULATION

CO₂ Calculator. Environmentally friendly production is good but it's even better to get customers involved, too. That's why Heidelberg is now offering an online climate calculator along with eye-catching logos.

Everything online

With the online CO₂ Calculator from Heidelberg, print service providers can calculate a print job's carbon footprint in just a few steps. Customers can register on the Heidelberg website to obtain a quote.

Customized configuration

The CO₂ Calculator from Heidelberg can be configured to meet a print shop's specific needs. The consumption values for equipment from Heidelberg are pre-installed, while those for other manufacturers can be added easily.

Simple calculation

After logging on, just a few job-specific parameters need to be input, such as run size, colors and paper format. The calculation method has been verified by the Fraunhofer Institute.

Climate protection with meaningful seal of quality

To offset the emissions calculated, the online platform can be used to select climate protection projects that meet the provisions of the Kyoto Protocol and the very highest standard for offsetting projects, the "Gold Standard." An attractive logo can be placed on the print job to certify offsetting. Purchasers of print products also receive a certificate. The logo features an individual ID number that can be used to check the offsetting contributions on the Heidelberg website.

Maximum publicity

Heidelberg is the world's only press manufacturer that offsets CO₂ generated in the production of all its presses. The special combination logo is designed for print jobs printed on these presses and for which CO₂ emissions have been offset using the CO₂ Calculator.

Print shops are able to present their company profiles on the Heidelberg website. A company profile number can be added to the ID number in the logo. "Another key feature is that Heidelberg supplies everything from a single source – equipment, offsetting and eye-catching logos to place on products and equipment. This combination is unique in the industry.

www.heidelberg.com/calculator

PANORAMA

"All of us create images and emotions from nothing in our dreams. Yet, as soon as we wake up, the left-hand side of the brain completely takes over most people's thought processes. Ideas, concepts and images are discarded or suppressed as a result."

MICHAEL KELLER
MANAGING PARTNER AT DESIGN
AGENCY KMS BLACKSPACE

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IT'S YOUR ...



... DECISION

Perception Designer Michael Keller is convinced that everyone has the same creative potential if the right half of the brain is activated. Dreams and ideas are apparently created solely in the right-hand side of our brains. Keller provided a graphic illustration of this with an installation at the Pinakothek der Moderne.

S

pheric music floats through the darkened room. The white glow of several flatscreens around the walls bathes visitors in diffuse light. Standing in the center is Michael Keller, who created the installation. Keller's arms are crossed, his bright blue eyes lighting up as he looks at one of the screens, which is displaying a totally white picture. "Believe me – every one of us can create images from nothing," he says. A visitor puts on some glasses and it's a fact – cars, buildings, people and camera shots appear on the screen. Other visitors stand dumbfounded in front of the other screens, putting their glasses on and taking them off, furrowing their brows and casting furtive glances. The question "Why can't I see anything?" is written all over their faces.

This was precisely the response that Keller was looking to provoke in his installation "Black Space. Two views on the creative mind." In May last year, he used the temporary "Schaustelle" exhibition area at the Pinakothek der Moderne in Munich to present his visitors with a difficult decision. At the entrance, they had to decide whether to go through the left-hand door, which – according to the inscription – stood for logical thinking, planning and mathematics, or the right-hand door, whose inscription promised – among other things – emotions, body language and musicality.

Emotions on the right, logic on the left

Depending on the entrance they chose, visitors were given a pair of glasses similar to those used for 3D movies. These were the actual key to the personal experience. Only those entering the room through the right-hand door – symbolizing the right-hand side of the brain – were given glasses that actually made images visible on the screens. For the others – who were guided, figuratively speaking, by the left hand-side of the brain – the screens remained white even with the glasses on.

Visitors to Keller's exhibition didn't find it easy to choose an entrance. At times, there were more people standing at the two doors than in the room itself. They discussed and wrestled with the question of what decision to make. Very few considered trying both doors. For Keller, this is proof of how fixated we are on our vision of the world. Ultimately, for some visitors the virtual windows of the creative temple remained merely brightly illuminated



MICHAEL KELLER, born in 1963, is a managing partner at design agency KMS BLACKSPACE. His mission is to make brands tangible. Keller's works focus on size and inspiration and have been exhibited internationally on numerous occasions. Keller gives lectures on the future of design and is a driving force in the international design world.

screens devoid of content. Despite this, when they looked at the white screens, some of their eyes suddenly lit up, even without glasses.

"All of us create images and emotions from nothing in our dreams. Yet, as soon as we wake up, the left-hand side of the brain completely takes over most people's thought processes. Ideas, concepts and images are discarded or suppressed as a result," says Keller. It is precisely this creativity that is the driving force and source for everything. "The world is constructed by the left-hand side of the brain but created by the right-hand side," says Keller with a wry smile. He views the darkened room with the brightly illuminated TV screens as a kind of temple of creativity whose virtual windows show images to visitors and stir their imaginations – or nothing more than abstract luminescent white.

The idea of something totally new

"In all our lives, there's a time when – consciously or unconsciously – we decide which side of the brain we wish to be dominated by," insists Keller. He himself is undoubtedly under the influence of the right side of his brain. To be interrupted as little as possible, Keller says that – even as a managing partner of design agency KMS BLACKSPACE, which has sixty employees – he only uses his cellphone or emails for the most essential communications. His mission as a designer is to produce a creative idea from nothing, developing something totally new. In doing so, he doesn't want to get distracted by the left-hand side of his brain.

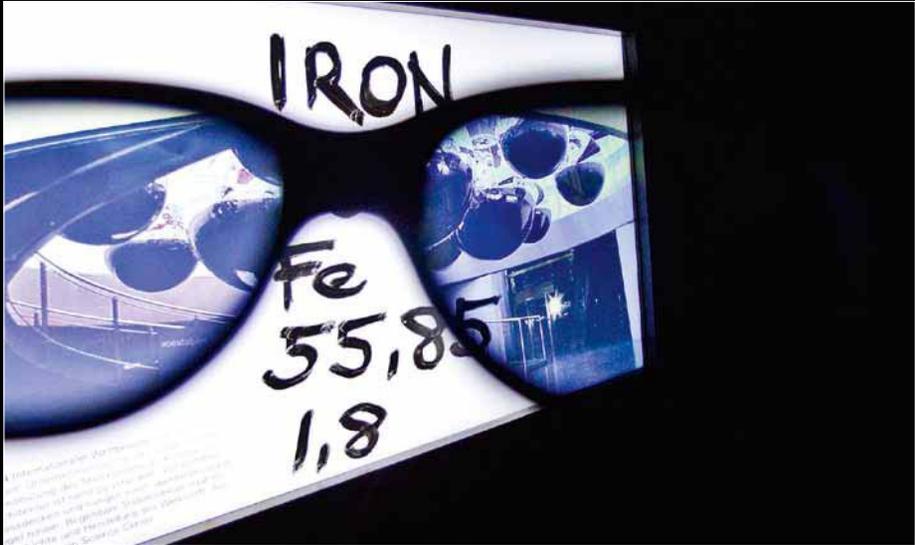
However, choosing the right-hand door in his life was by no means a foregone conclusion. He attended seven different schools, completely failing art as a subject. The Munich School of Arts rejected his application three times. No one seemed to share his view of things or his vision of the world. "At that point you sometimes wonder whether you're really on the right path and whether it's at all possible to be guided by the right-hand side of the brain," says Keller. The belief in himself and in his ability to see and create images ultimately gave him the answer. Keller wants to pass on this realization to visitors with the exhibition in the "Schaustelle." "Maybe this will unlock previously untapped creative abilities," he hopes. "A great many people do not harness their creative potential to the full. To do this, they need to push open the correct door." ■

www.kms-blackspace.com



The screen is still white and remains that way for some observers, while others can see the images of cars, buildings and people.

These 3D glasses with polarization filters make the visual impressions become visible or remain invisible and are the key to the entirely personal experience.



Only those entering the installation through the right-hand door – symbolizing the right-hand side of the brain – were given glasses that actually made images visible on the screens.

THE END OF THE ILLUSION

What we see and how our brain processes the images are two completely different things, says Prof. Leo Peichl from the Max Planck Institute for Brain Research. However, perception is less individual than we tend to believe.



“As our brain cannot process all the information transmitted by the eye, it uses selective attention to simply filter out any images it sees as irrelevant. However, this relevance changes continuously.”

PROF. DR. LEO PEICHL
MAX PLANCK INSTITUTE FOR
BRAIN RESEARCH

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rof. Peichl, do we see with our eyes or with our brain?

The brain is responsible for a far greater part of our perception. The retina of our eye absorbs information and breaks it down into individual parts – light, dark, color, motion. It acts as a filter, for example for the color spectrum or for enhancing contrasts. The visual cortex of our brain uses these individual items of information to recreate an entire image.

Can this image be manipulated?

To a certain extent, yes. Colored light, for example, can affect how we perceive things. The meat counter in supermarkets is often illuminated with a red light, because it makes the products look redder, i.e. fresher. Optical tricks and visual illusions can fool the brain into seeing things that are not really there.

Could this be used to influence specific target groups?

No. Everyone's brain functions in the same way, which means that optical

illusions work regardless of a person's position, gender or status. This is reflected in the fact that optical illusions still work even though we know they are not real. The brain cannot be influenced at will in this way.

Why then do some products with eye-catching packaging tempt customers to make a purchase while others don't?

That depends on many factors. As our brain cannot process all the information transmitted by the eye, it uses selective attention to simply filter out any images it sees as irrelevant. However, this relevance changes continuously. If I'm full, I maybe don't see what a restaurant has to offer on its menu. Whereas, if I'm hungry, a billboard is likely to jump out at me. The learning effect is another factor. If a customer is satisfied by a product in inconspicuous packaging, he will most likely only opt for the bright packaging of an unknown competitor in exceptional cases. Ultimately, the decision is always 50:50.

Have our senses been dulled by the constant flow of information and the variety of products on offer today? Are we less perceptive than our parents or grandparents?

I doubt it. I would even argue that we don't have access to more information today – just different kinds of information. For instance, it was important for Native American Indians to read tracks, so they probably saw all kinds of footprints wherever they went. This type of information is not important to us today, so we don't see the tracks anymore, even though they're still there.

That means our brain always absorbs the same amount of information regardless of what is on offer?

In principle, yes. Imagine you're pouring water into a glass. Regardless of whether you're pouring it from a carafe or a watering can – the amount of water in the glass is always exactly the same.

So, advertising or eye-catching packaging is pointless?

I wouldn't go that far. The thrill of something new can influence purchasing decisions. And, of course, packaging has other properties that can have a positive impact, such as brand recognition, ease of handling, reliable product protection or easily legible information. ■

ONE MORE TIME, WITH FEELING ... WHEN PACKAGING SEDUCES THE SENSES

Packaging that appeals to the emotions can make the difference between staying on the shelf or going into the shopping cart. These days, striking packaging design and the skilled use of finishing techniques are quite simply the order of the day. Packaging finished to a high quality standard adds to the perception of the value of the product. This is especially important in today's saturated markets.

A contribution by Lars Scheidweiler, Product Group Manager Rigid Packaging at Sappi Fine Paper Europe

If you want a product to sell well, the packaging needs to appeal to all the senses. Only then can the product break through in an oversaturated market and be differentiated from comparable products. Packaging that seduces customers emotionally, making skilled use of a variety of print finishing techniques, elicits the famous 'wow' factor and achieves success. This is a trend that all parties in the packaging supply chain are increasingly focused on, particularly in today's fast-paced and highly competitive market. There is no doubt that the buying decision is heavily influenced by the packaging – as confirmed again and again in consumer surveys. According to a recent study by Pro Carton, as much as 70 percent of buying decisions are driven by emotion, with 52 percent affected by visual appearance and 33 percent by the physical properties.

This data leads us to the conclusion that consumers are ultimately more likely to buy a product when the packaging speaks to them on an emotional, visual and tactile level. This is also the reason that package design is – and will remain – such an exciting and lucrative sector for packaging converters, designers, brand owners, paper manufacturers, printers and print



Lars Scheidweiler
Product Group Manager
Rigid Packaging

finishers. But this also means that demands on substrates to deliver high quality, to support versatile printing and finishing options are on the rise. Bright white virgin fibre cartons, for which Sappi is known, are now regarded as the ideal carrier to achieve successful market positioning, especially when combined with sophisticated printing and finishing techniques. These elements deliver the multi-sensory impact in packaging that will gain greater attention from consumers and differentiate the product. This undoubtedly results in greater brand awareness, more sales and increased market share.

Just ask customers ... they are reaping the benefits of packaging that literally jumps off the shelf through a coordinated supply chain effort and the use of Sappi Algro Design® bright white carton board as a base.



AT WORK

ELIZA MAJEWSKA FROM DRUKARNIA PERFECT S.A. IN WARSAW, POLAND

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Eliza Majewska started working for Drukarnia Perfekt S.A. in Warsaw 11 years ago. A qualified printer, she runs the service department at this Polish print shop that specializes in books. As such, she is just where she hoped to be after completing her training – at the interface between customers and production in a modern printing house.

Although her duties there sound quite straightforward – she and her team have to satisfy customers' requirements – in reality the work can often be quite demanding. "Unfortunately, technical limitations can sometimes obstruct certain special requirements. If so, I try to negotiate and find the best practical solution with the help of the production team." Troubleshooting using creativity and her own initiative is what Eliza Majewska enjoys most about her work. In her free time, she enjoys ice skating with her husband and two children or reading the biographies of well-known figures from modern history. ■

IMPRINT

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READERS' LETTERS

Christian Sacher, Altdorf, Switzerland

First-class design and printing, as always.

The magazine oozes quality to the touch.

It really showcases the expertise of Heidelberger Druckmaschinen AG.

Ansu Ashokan, Sivakasi, India

The article about the energy efficiency measuring device was fascinating. I never would have guessed that the energy consumption of a press operating at high speed is higher than one running more slowly.

Martin Wölfler, Leer, Germany

It's particularly important for art and culture to be expressed in printed form.

Thanks for the "Poster Palace."

Bayu Susilo, Java, Indonesia

I really enjoy reading Heidelberg News, particularly the "Tips & Tricks" feature. As a printer, it expands my knowledge and has often helped me solve problems that occur in my day-to-day work. I hope there'll be a place for this feature in your magazine for a long time to come.

Olivier Dussaux, Sainte Catherine, France

I often turn to your magazine for advice. Like Polish print shop owner Janusz Banasiewicz (HN 274, from page 14), I also started out on my own 31 years ago. Today, I have eight employees and all my machines are from Heidelberg.

Fernando Rosales Perez, Cochabamba, Bolivia

My family has worked in the printing industry for many years. I'm at the start of my career and really enjoy reading Heidelberg News, because the articles provide me with plenty of tips and suggestions for improving and speeding up my work as a printer working on a Speedmaster. Thanks for all your help.

Send us your comments!

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

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COMPETITION



CAN YOU TELL US?

The year 1935 was a very special one for Heidelberger Druckmaschinen AG, which was still called Schnellpressen AG Heidelberg at the time. It was the year that the company's first fully automatic letterset printing press for the 46 × 63 centimeter (18.11 × 24.80 inch) format made its world premiere. Raised hot-metal letters were used for printing, but the special thing about the press was the "corrected single-revolution system" on which the drive was based. This drive moved the carriage with the printing form far slower during printing than on its return. As a result, the press was able to reach a maximum speed of 4,000 sheets per hour in continuous operation, even with difficult printing forms.

Straightforward operation and fast setup also quickly made the press a bestseller the world over. The preloading device cut makeready times, the sucker bar grippers improved sheet travel and the application rollers increased the ink volume. The pile board was equipped with rollers and was easy to move away from the machine. It had double the sheet capacity of the feed table, which meant there was no need to stop the press if additional sheets were inserted manually before the entire feed pile was printed.

What is the name of this Heidelberg press?

Do you know the answer?

If so, write to us at heidelberg.news@heidelberg.com and, with a little bit of luck, you could win one of 15 great prizes from our merchandising shop.



1st PRIZE
iPad Air

WINNERS OF THE READER'S SURVEY HN 274

1st Prize:

Fernando Rosales Perez, Rosalnes Impresores, Cochabamba, Bolivia

2nd through 3rd Prize:

Emmanuel Okpe, Kwaliti Printings & Packaging LTD., Abuja, Nigeria

Ashokan Amsg, All India Master printers Association (AIFMP), New Delhi, India

4th through 6th Prize:

Walter Leonidas Vela Vasquez, Afined, Lima, Peru

Andrea Kurz-Blank, Model Prime Pac AG, Au, Switzerland

Thomas Bertelt, Druckhaus Friedr. Schmücker GmbH, Loeningen, Germany

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



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