The customer magazine Since 1930 + Issue 271 + 2011

Trailblazer

Paolo Perrin's Valdostana print shop

New HEI Tech The Speedmaster CX 102 from Heidelberg

Print-to-web How smart tags and augmented reality are transforming the print market

HEIDELBERG

TWIN POLE EXP



Adding value to new developments

Have you noticed how overused the word "innovation" is? Virtually everything – from skin cream to shampoo – is marketed as being innovative, even though the name is the only thing that's new in some cases. True innovations are something completely different. According to the Nobel Prize-winning physicist Peter Grünberg, "Anyone who is lucky enough to make a new discovery must also find a way of turning it into something of value." He is undoubtedly right. An innovation only becomes a success if it offers users real added value.

As a Heidelberg customer, you will know that all our new developments take this fact into account. However, the use of innovative products and technologies is not in itself sufficient to ensure long-term success. If you are looking to offer your customers something more in the future, too, you will also need to optimize your business management processes and adopt innovative business models. We can help you do this with our new training and advisory services. We have also recently entered into a partnership with the digital printing specialist Ricoh to cater to the growing demand for extremely short color runs. The combination of digital and offset printing will unlock huge potential for you on the booming Web-to-print market. To ensure you benefit from these opportunities, we will be using this new cooperation agreement to create novel solutions that offer excellent added value.

Read on to discover a few examples of innovations from Heidelberg that are already available. Once again, I hope this issue contains something of interest to you and wish you an enjoyable read!

Yours,

durein

Chief Executive Officer Heidelberger Druckmaschinen AG

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His first print shop was just four square meters in size, but Muhammad Yousuf Tinwala now owns one of Pakistan's most cutting-edge packaging print shops. Saima Packaging has a 100,000 square meter production area and an international customer base.

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A six-color Speedmaster XL 105 with FoilStar cold foil module has won the Valdostana print shop new customers all over Italy. This has been achieved in no small part due to the hard work, passion and know-how of the man in charge, Paolo Perrin.

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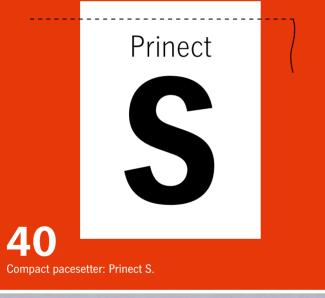
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With a speed of 16,500 sph and numerous technologies that used to be the preserve of Peak Performance Class presses, the new Speedmaster CX 102 neatly plugs the gap between the Speedmaster CD 102 and XL 105 models. This makes it a particularly attractive option for print shops that are looking to step up to industrial-scale production.

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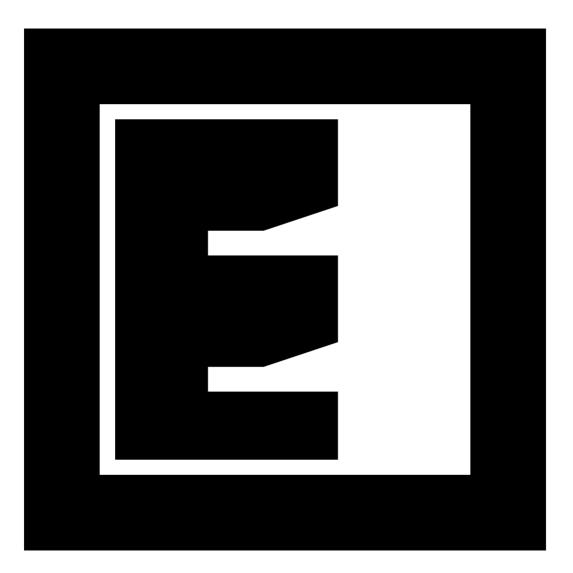
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Multidimensional Printing

Does the future of print media lie on the Internet? It may well to some extent. After all, today's Print-to-web technologies involving smart tags and augmented reality already offer attractive options for adding multimedia content to books, brochures and packaging. Giving print an interactive dimension makes it an appealing medium for young target groups, too. They can explore it individually or share it with friends and pass it on using Facebook and Twitter. Whatever direction the Internet takes in the future, printed paper is becoming an integral part of this development. It has the double fascination of being both the traditional reading medium and a multimedia springboard to the online world – both now and in the future. You will find an example on the next page – the 3D model of a Speedmaster CX 102. To view it, you will need a computer or notebook with a webcam.



- 1. Simply enter the following URL in your browser: www.heidelberg.com/3d-model
- 2. Give the flash browser plugin the requested access to your webcam.
- **3.** Hold the adjacent symbol in front of the camera so that it is in full view. A few seconds later a 3D model appears that you can move about as you like. Please ensure when you do so that the entire square remains within the webcam's field of vision.
- 4. Have fun!





Past and present: Muhammad Yousuf Tinwala in front of his first 4-squaremeter print shop (left) and the main building of Saima Packaging (right).



A Far-sighted Businessman

SAIMA PACKAGING // There are two very different sides to Pakistan's printing industry. Small and extremely small businesses predominate in rural areas, yet some print shops in business hubs such as Karachi are hardly any different from industrial enterprises in the West. Saima Packaging is a perfect example.

arachi is definitely not a place for anyone who has a fear of crowds. With an estimated 15 million inhabitants, this city in the south of Pakistan is one of the world's largest population centers. Karachi is the country's number one industrial, trade, transport, financial and cultural hub. It comes as no great surprise, then, that it is also Pakistan's richest city. Annual per capita earnings here are four to five times the national average of around 1,000 U.S. dollars (705 euros). This inevitably attracts a steady flow of people from rural areas to the metropolis, which is now completely over-populated. Around 50 different languages and dialects are spoken in Karachi,

which is a melting pot of ethnic groups. Like other mega cities, it is a place of extreme contrasts – from the glitz and glamour of downtown Karachi to the severe hardship in the sprawling slums.

Muhammad Yousuf Tinwala knows the city and its unique features like the back of his hand. He grew up there in a two-room apartment with his parents and 10 brothers and sisters. Muhammad Yousuf worked very hard from an early age, starting from small beginnings, rolling up his sleeves and repeatedly taking risks. Today, the 62 year old likes buying expensive watches and shoes – things he could only dream of before. He is one of those people who have worked their way to the top and made something of themselves – in this case the founder, sole owner and managing director of Saima Packaging Pvt. Ltd., one of Pakistan's largest packaging printers. Despite the watches and shoes, Muhammad Yousuf has always maintained his down-to-earth attitude. He is very conscious of his roots, of where he started out, and has not let success go to his head.

Starting out on four square meters. Muhammad Yousuf is a printer through and through. In the early 1970s, he worked as a print agent and, to earn some money on the side, founded a tiny print shop that was just 43 square feet (4 sq. m.) in size. "My first job was to ▶







Employees in two shifts work 20 hours a day producing packaging for food, cigarettes, cosmetics and pharmaceuticals.

print 100 writing pads with 100 sheets each," he says with a grin, because he will never forget the date the order was placed. "It was March 8, 1972 – the day my first daughter was born," he recalls. The proud new father spontaneously decided to name his fledgling company after the new arrival – Saima. Three years later, Muhammad Yousuf purchased a small letterpress machine, and his side job became his main occupation. Family and friends loaned him the start-up capital of 25,000 Pakistan rupees (2,700 U.S. dollars back then). Saima Packaging now has an approx. 250,000 square feet (23,225 sq. m.) production facility. The company employs 300 staff and generates sales of just under 2 billion rupees (more than 20 million U.S. dollars, 15 m. euros). The volume of business has increased fivefold in the space of just five years.

Saima's 20-hour-a-day, two-shift operation is devoted exclusively to printing packaging for food, cigarettes, pharmaceuticals and cosmetics. It's no coincidence that a number of cookie manufacturers also feature among the print shop's customers. When he was still a print agent, Muhammad Yousuf mainly worked for the local bakery industry. "There were frequent problems with print shops' delivery reliability," he recalls – something he found difficult to accept. Once he had his own small print shop, he wanted to prove to customers that he could do better. Muhammad Yousuf still considers reliability to be extremely important. "Since Saima was founded, not one single delivery has been late beyond agreed limits," says the self-made man with visible pride. In addition to consistently high quality, competitive prices and fast order processing, he knows that this reliability is an all-important criterion for long-term customer relationships. Indeed, in his eyes, keeping to delivery deadlines is the number one prerequisite for customer loyalty.

From cigarettes to Big Macs. From the names on Saima's list of references, it is clear that Muhammad Yousuf knows how to obtain new customers as well as hold on to existing ones. The list includes cigarette manufacturer Philip Morris, food and hygiene multinational Unilever, U.S. pharmaceuticals company Abbott, and Reckitt Benckiser, one of the world's leading manufacturers of cleaning products. Saima also prints the collapsible cardboard packaging in which McDonald's burgers are sold. This involves huge print runs of up to 1 million sheets.

Printing for multinationals means complying with international standards – whether the presses are operating in Switzerland or a developing country such as Pakistan. "We have been working for many of our customers for years, so they have come to trust us and the quality we deliver," explains Muhammad

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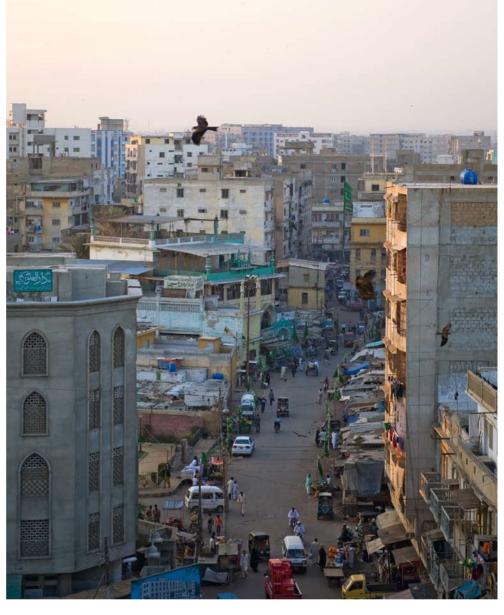
Quality control after a proof run: Saima Packaging works for numerous global customers who demand that their service providers comply with international standards. bak

Heidelberg News • Profiles

Yousuf. He adds that the combination of quality and reliability pays off – especially now that competition is getting fiercer in Pakistan, too. In Karachi alone, there are between 400 and 500 print shops chasing orders. And this figure increases to around 1,200 for Pakistan as a whole.

Muhammad Yousuf is particularly proud of the company's collaboration with a local cigarette manufacturer, a customer he won back a number of years ago. In 2004, a sixcolor Speedmaster CD 102-LYYLX was purchased from Heidelberg specifically for this work. This investment enabled the print shop to significantly boost its position on the cigarette box market in Pakistan. The CD 102 is also used for other "tobacco jobs." It is fully configured for UV coating and, according to Muhammad Yousuf, "can process virtually any substrate." Saima now converts roughly 600 tons of board per month only for the tobacco category.

A long Heidelberg tradition. The CD 102 was the fourth Heidelberg machine that Muhammad Yousuf bought. This close link with Heidelberg started in 1987 with a remarketed 12-year-old machine, SORK in the 50×70 format class. Not long after this, Muhammad Yousuf exchanged the old press for a new one of the same model, and in 2002 this was followed by a CD 102 five-color press with coating unit. "Heidelberg has always had a good reputation in Pakistan," he says, explaining a decision that he has not regretted for a single second. "Quite simply, the local service is just as good as the machines themselves," he stresses. Today, Saima Packaging operates a total of eight presses covering the full range of format classes. The majority are from Heidelberg, the world market leader for sheetfed offset presses. Since last year, the flagship has been a Speedmaster XL 105 sixcolor press with Double Coating application. Naturally, it is also equipped for UV printing. This XL 105 is the first of its kind anywhere in Pakistan and will help Saima maintain its vital edge over the competition. Looking to the



Karachi is the country's economic center and richest city. Around 60 percent of Pakistan's tax revenue is generated here. Per capita income here is four to five times higher than the national average.

future, Muhammad Yousuf reveals: "Within the next few years, we expect to be printing exclusively on Heidelberg presses."

The future market of flexible packaging. With the help of Heidelberg, Muhammad Yousuf is keen to continue his success story. The ambitious target for 10 years' time is for Saima Packaging to generate sales of 10 billion rupees (around 115 million U.S. dollars, 84 m. euros) and thus five times more than at present. Muhammad Yousuf will be 72 by this time and, presumably, his 24-year-old son Abdul Aleem Tinwala will by then be in charge of the business. He is already taking on evergreater responsibility at his father's company. The father and son team along with the professional management can look forward to excellent growth prospects – especially in the market segment for flexible packaging, which is primarily used in the food industry. Examples include packets for instant soup, plastic bottles for soft drinks, yogurt cups and aluminum foil for wrapping butter. Both father and son are confident that this packaging will become increasingly popular in Pakistan, too, even though the majority of food is sold loose in rural areas. ▶



Muhammad Yousuf Tinwala with his family (top) and son Abdul Aleem (right).

Muhammad Yousuf is well aware, however, that he will not achieve his ambitious growth targets simply by using state-of-theart equipment. He also needs good, wellqualified staff, but they are difficult to find in Pakistan. "Unfortunately, we do not yet have the appropriate training structures," he explains. Muhammad Yousuf was therefore left with no other choice but to take on the task of training staff himself and invest considerable sums in providing them with the necessary qualifications. He is well aware of how important his employees are to the success of his company and knows each of his 300-strong workforce personally. He tries to get to the bottom of their individual problems at the workplace and endeavors to find quick solutions. Muhammad Yousuf is always very well informed about all the processes at the company - and takes care of every little detail himself when necessary.

Significant changes on the market. At Saima Packaging, Muhammad Yousuf has undoubtedly created something of a "model pupil" in Pakistan. The print shop is scarcely any different from a business of a similar size in Europe, the U.S. or Japan – either inside or out. It boasts state-of-the-art prepress, press and postpress machines. Everything looks clean and tidy, and the offices are furnished with style.

This sets Saima Packaging apart from the majority of print shops in Pakistan. Most are still small or extremely small businesses that print straightforward jobs on one- or twocolor presses without any extra features whatsoever. This is typical of a developing country, but globalization and improved infrastructure have changed a great deal in Pakistan over the past two decades. In addition to numerous one-man businesses and SMEs, giant print shops have also emerged - and most have invested heavily in new machinery. Used 30-year-old presses were previously the norm, but today's pressrooms increasingly boast the latest equipment, even by western standards.

Packaging printing is much more important than advertising printing in Pakistan. One of the reasons for this is the country's literacy rate which is still around 50 percent. Along with the new equipment, though, quality requirements have also increased. Standard jobs in two to four colors used to predominate, but Pakistan's multinationals now have very different demands, especially when it comes to surface finishing. Around



two-thirds of all sheets printed at Saima have at least a spot coating, for instance. Other finishing techniques – such as embossing, blind embossing, metal lamination or the use of metal pigment inks – are now also part and parcel of day-to-day business operations. "The most unusual order was definitely applying a UV coating to a metallic substrate," says Muhammad Yousuf. But, as with everything he has tackled to date, he managed that, too. To ensure this remains the case in the future, the Tinwala family will continue rolling up their sleeves – to keep up the family tradition and because the market still demands it. ■

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Hopes and fears

With 180 million inhabitants, Pakistan has the fifth-highest population in the world after China, India, the U.S. and Indonesia. The country's official languages are Urdu and English. It was formed in 1947 from the predominantly Muslim parts of the former colony of British India. Pakistan is a developing country. According to United Nations statistics, one in six of the population lives on less than 1 dollar a day. Before the catastrophic floods in 2010, the government was predicting economic growth of 4.5 percent, but the massive damage has dashed any hope Pakistan had of a rapid economic growth. Experts expect the reconstruction work to take many years.

Pakistan's printing industry also faces a whole host of problems. To support the domestic paper industry, the government has been imposing high import duties on foreign paper products since 2008. As a result, highquality paper and paper boards are difficult and costly to obtain. These underlying conditions are being exacerbated by a persistently high annual inflation rate of close to 15 percent. Pakistan's unstable political situation is causing further problems by putting off many potential investors.

ofile

TIPOGRAFIA VALDOSTANA

VA BENE

TIPOGRAFIA VALDOSTANA // The Aosta Valley in northern Italy may be a paradise for skiers, hikers and food connoisseurs, but it is too small for the visions of Paolo Perrin. Through a series of clever investments, serious dedication and a passion for printing, the head of Tipografia Valdostana has succeeded in winning new customers throughout Italy and beyond.

Profiles



t is freezing cold on the snow-covered rugby field on the outskirts of Aosta. The thermometer is showing minus 7 degrees Celsius and the floodlights are glittering in the powdery snow.

Paolo Perrin is freezing. Wearing only a thin T-shirt and shorts under a green parka jacket, he has been waiting for half an hour while the photographer gets things ready to take a few photos of him for *Heidelberg News*. Paolo jumps up and down a few times to warm up, then takes a rugby ball and lines it up before kicking it in a wide arc over the H-shaped posts that stand a good 65 feet (20 m.) away. As easy as pie, with barely a run-up. At 42, it has been a long time since Paolo played rugby, but he trained here almost daily as a teenager and looks back fondly on his time as an active player: "It was great fun to receive the ball, start to run and then fight your way through the pack!"

Commercial print shop with Catholic roots. Paolo has real fighting spirit and works hard to get results. However, he is also the heart and soul behind Tipografia Valdostana. Even as a young boy, he went to the print shop almost every day after school when his uncle was the boss. While his parents worked in a steel factory in Aosta, he sat and typed short texts into an old Linotype typesetting machine. He joined the print shop officially when he was just 20 years old. Originally owned by the Catholic church, the Perrin family has had a majority holding in the company since 1996. Even though he never

A quiet night in the narrow streets of Aosta. The history of the capital of the Aosta Valley reaches back to the ancient world. Today it has a population of around 35,000.

trained as a printer, Paolo knows the job inside out and has in-depth knowledge of each and every machine in the print shop. "If you love your job, you learn quickly," says Paolo.

The print shop's roots stretch back 115 years. Initially, the small business in Aosta's historic center produced mainly church pamphlets but soon started printing commercial products for local authorities and companies as well as books about life and culture in the Aosta Valley. A couple of these traditions are still alive today. For example, the print shop still employs an editor and produces books that are sold in the company's own book store. Existing business relations with publishing houses and other customers in Switzerland and France also stem from the company's early years.

Otherwise, things have changed dramatically since then. Since he took over as Managing Director 15 years ago, Paolo has made the family business what it is today - a high-tech print shop with 20 employees and state-of-the-art equipment that has made its name throughout Italy and beyond with distinctive surface finishes. On an area of 21,527 square feet (2,000 sq. m.), the print shop works in two shifts to produce flyers, brochures, calendars and packaging that can be coated, embossed or finished with metallic cold foil. Other regular jobs include books and a yearbook for the local parish. Tipografia Valdostana makes a good 20 percent of its total sales of 3.5 million U.S. dollars (2.5 m. euros) from customers in the Aosta Valley, including local authorities, cultural institutions, advertising agencies and companies in the tourism and fashion industries. Clients in nearby France and Switzerland, mainly publishing houses and agencies, account for around 35 percent of sales. The print shop generates a further 5 percent in Luxembourg and the U.K., with the remaining 40 percent coming from Italian customers outside the local area.

Immense competitive pressure. On a tour around the print shop, Paolo proudly shows off his latest acquisition – a six-color Speedmaster XL 105 with coating unit and FoilStar cold foil module. "Investing in this machine two years ago enabled us to set a new course for the future," says Paolo. "It helped us set ourselves apart from the competition and offer new services, opening a lot of new doors to potential clients in the process."

A number of factors prompted this investment in a new complete press with FoilStar module. Like other print shops, Tipografia Valdostana is up against falling orders and shrinking margins. Plus, as a result of the global economic crisis, there are fewer clients on the market today than there were just a few years ago. Aosta and the

"You can print anything with a large press – even decorative, small jobs." Paolo Perrin's Speedmaster XL 105 with the FoilStar cold foil module.

Profiles

Roll of foil for cold foil finishing (left); employees at the press (right) and at the Prinect Press Center (below).







Aosta Valley offer little potential for generating new business. Although the region in the extreme north-west corner of Italy has a small population of roughly 110,000, it is home to 10 print shops, which means there is stiff competition for the relatively small number of potential clients in the area.

It goes without saying that the region's proximity to the border brings advantages for international business, but competition in this area, too, is tougher than ever before. "The pricing pressure in France is so strong that many print shops are forced to take on jobs that make them no money at all," says Paolo. "The introduction of the euro in 2002 was also bad for our international business," he adds. "When we had the benefit of a weak lira, we could undercut virtually any offer. When the euro was introduced, our promise to deliver within 24 hours still gave us an advantage in the short term, but in 2008 suddenly only the price counted."

New technology for new customers. 2008 was also when Paolo made a crucial decision. On a visit to drupa in Düsseldorf, he saw the Foil-Star cold foil module in action. "I was immediately fascinated by the metallic finishing effects," remembers Paolo. "And, as I know how important innovations are in the print business, it didn't take me long to make up my mind. Two days later, I ordered the module along with the Speedmaster XL 105." He didn't have any orders for cold foil finishing at this time. "We were one of the first print shops in Italy to work with FoilStar and very little was known about this The Roman Augustus Arch in Aosta dedicated to the city's founder, Emperor Augustus.

technology," says Paolo. "Nevertheless, I saw the investment as an opportunity and an important step forward for us and for customers, rather than a risk."

The print shop started working with the new technology in the spring of 2009. In the beginning, Paolo finished numerous jobs free of charge so that customers could see the effects on their own print products. Since then, demand for FoilStar applications has risen steadily. Paolo estimates that the print shop has now finished around 800,000 sheets with cold foil – and the trend is growing.

More importantly, however, this new technology has helped the print shop achieve an important new milestone. "We have won new customers throughout Italy – in the north, in Rome, and even in southern Italy," explains Paolo. "Business is also picking up in France, where we had previously lost ground to our competitors." And there are other benefits, too. "Most customers that are initially attracted by our finishing options also place orders for simpler jobs with us," he adds. "What's more, the high press productivity means that not only are we able to offset the general drop in prices, but we are even able to charge more, because customers want to benefit from our USPs – and are willing to pay extra for that."

Intensive consulting pays off. As good as that sounds, Paolo knows he still has a long journey ahead of him because many companies and agencies are still unfamiliar with the FoilStar concept and its finishing options.

"Nevertheless, I saw the investment as an opportunity and an important step forward for us and for customers, rather than a risk." PAOLO PERRIN, CEO

To change this, the print shop places regular advertisements in trade and popular magazines or encloses print samples of the finishing techniques. Tipografia Valdostana has also worked with graphic designer Arnaldo Tranti to produce a stylish illustrated book. The book utilizes almost the entire spectrum of finishing options to showcase 30 unusually designed animals in their natural habitat.



The print shop also provides customers with a self-programmed Excel application that provides a preview of the finishing effect after a few print parameters are input. However, talking directly to customers has so far proved the most successful approach. "Consulting accounts for 95 percent of our success. For every 100 customers that I talk to, 95 place an order with the company."

Greater environmental protection, lower costs. Winning new customers and achieving extra growth is great, but running costs are also an important factor in a print shop's business. To cut these costs, Paolo has introduced numerous measures that also have a positive effect on the company's environmental performance. For example, the press is cooled using water. This process warms the water, which is then used to heat the pressroom and office buildings on the first floor on cold days. The plate manufacturing process is chemical-free and the print process uses biodegradable inks that are filled into cartridges before being used in the press's Inkline equipment.

The print shop also uses only paper and card that has an FSC certificate and is delivered to the company in large quantities once a month. The print shop receives materials for special applications once a week. In this way, the print shop has reduced its supply routes by around 745 miles (1,200 km) a week, thus also reducing the corresponding costs and emissions. Overall, these ecological measures equate to savings of around 17,000 U.S. dollars (12,000 euros) a year for the print shop. ▶

Located close to the highest mountains in Europe – the Matterhorn (4,478 m), Monte Rosa (4,634 m) and Mont Blanc (4,810 m) – Aosta is the ideal starting point for winter sports enthusiasts.





Flexible division of labor. Returning to the print shop the next morning, it has snowed again. Paolo is expecting a delivery of paper, so he uses a snowplow to clear the entrance to the print shop. When the truck arrives, the boss climbs onto a forklift and unloads the pallets himself. A few minutes later, he is standing at the wallscreen of the Speedmaster XL 105 checking the quality of an OK sheet, before moving onto postpress to see what is happening there and to sort a few cartons. His cellphone rings all the while, with customers wanting to talk about orders and suppliers looking to coordinate deadlines. It's not even 10 a.m. and Paolo has already been in the print shop for three hours. And he still has a further eleven hours ahead of him. "I usually work 13 or 14 hours a day and don't go home till I've planned what I'm going to do the next day," he says while throwing back an espresso. Nothing fazes him. He is content.

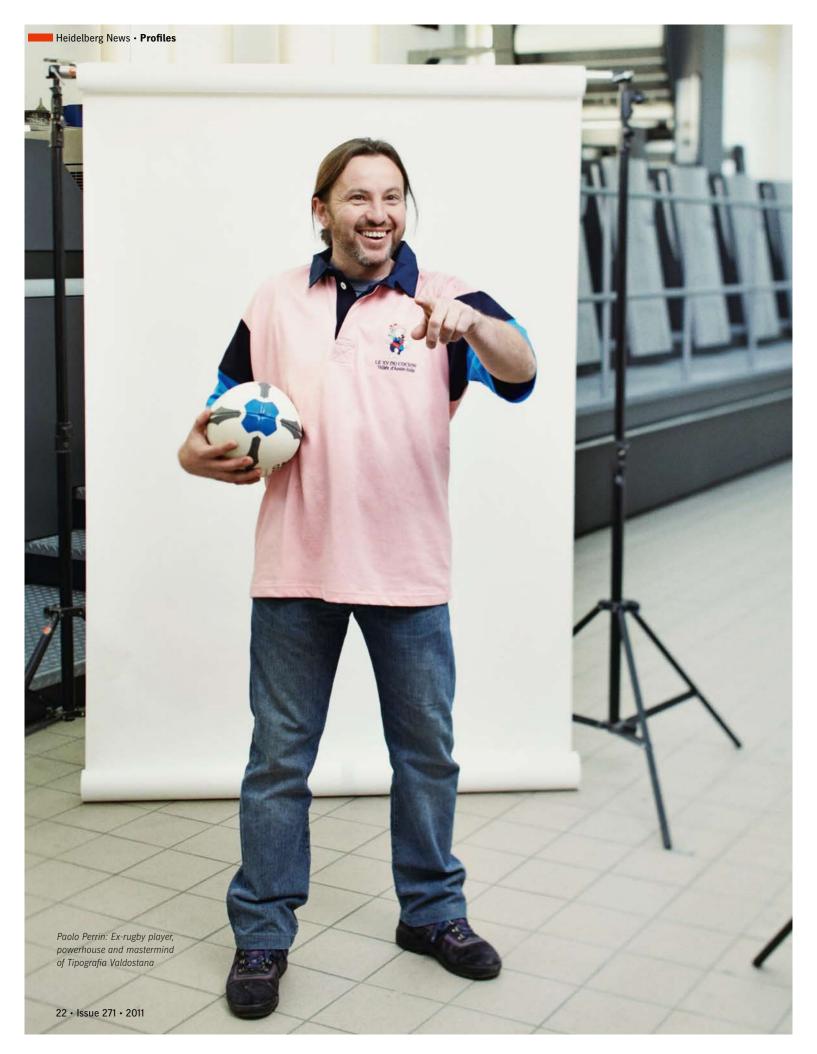
Paolo works a lot and he loves his job. The Managing Director and Vice President of Tipografia Valdostana has also been known to sweep the press room if necessary. However, he also expects his employees to tackle any job as and when needed. For example, if there is a bottleneck in postpress, the printers will lend a hand. Or, if a printer is absent, an employee from prepress or postpress will help out. It all runs like clockwork, because all the employees are familiar with each and every machine and production operation.

Bricklayer, baker and barkeeper. For many other print shops, this level of flexibility would be unimaginable. But it works here – for reasons that go back to 1996. Back then, one of Paolo's cousins was ▶

The postpress operations of Tipografia Valdostana still offer plenty of space, but Paolo Perrin is planning to expand soon to boost capacity further.







Aosta was built like a chessboard. It originally comprised 64 districts and was shaped like a square. Today, the early Roman foundation can still be seen in the Old Town.

also employed at the print shop. However, they didn't see eye to eye as they had different ideas about how the company should be run. Shortly afterwards, the cousin left the print shop, taking eight of the 16 employees with him. Paolo, who headed up the company from this time onwards, urgently needed new personnel, but printers were hard to find. He therefore asked his remaining staff whether they had any reliable friends or acquaintances who would be interested in working for him. And this was how Paolo came to have a workforce comprising bricklayers, bakers, fitters, chefs and even an English cartographer, who had previously earned a living in Aosta as a snowboard instructor and barkeeper. He started in prepress. Now he operates the press.

Paolo spent a year training the new employees so intensively that the company's sales fell by around 60 percent. "The separation cost us a lot of customers, but I made a conscious decision not to try to win any new orders during this time," says Paolo. He only started looking for new clients and building up production capacities

"Our employee turnover is zero. Anyone who joins the company stays till they retire." PAOLO PERRIN, CEO

again a year later. But two days a week were still reserved for staff training. Paolo's strategy proved a resounding success – two years after the split, the company had doubled its sales. "That was incredibly satisfying," says Paolo. The employees also appreciate the variety, particularly because he tries – wherever possible – to cater to their requirements. "Our employee turnover is zero. Anyone who joins the company stays till they retire."

Centralization, further growth and skiing in New Zealand. Paolo has clear goals for the future. Right next to the print shop there is a derelict house standing on grounds of around 3,229 square feet (300 sq. m.). He would like to buy this property to create extra space for postpress and additional machinery, such as another saddlestitcher, an embossing and die cutting machine and a larger adhesive binder from Heidelberg. "This would significantly increase our postpress



capacities," explains Paolo. "More importantly, it would make us less dependent on our suppliers, who are based around 62 miles (100 km) away."

And in 10 years' time? Paolo pauses briefly for thought: "I will probably be doing the same job but working fewer hours. That would give me the time to fulfill my dream of going to New Zealand to ski on white mountains under blue skies while looking down on the blue sea below. I saw it on television and I once even dreamt I was living there – I woke up one morning, opened the door and found myself in New Zealand. No kidding!" ■

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www.heidelberg.com/en/FoilStar

News & Reports

1,000[™] MACHINE FROM QINGPU // SPEEDMASTER FOR JIANGXI JINRUI MARKS A MILESTONE

CHINA. At the end of last year, the Heidelberg assembly site in Qingpu delivered its 1,000th machine. The press delivered is a Speedmaster CD 102 with four printing units, which is now in operation at Jiangxi Jinrui Printing Co., Ltd. in Nanchang. Heidelberg China marked this production milestone with a celebration at the handover ceremony. Jiangxi Jinrui's Managing Director Zhu Kai Lin took the opportunity to talk about the growing demands in China. "For years, our customers have been calling for ever better print products. We rely on Heidelberg equipment and services to meet their demands," he said. It goes without saying that Qingpu also complies with the toughest quality guidelines. If all goes according to plan, the plant will reach a size of 710,000 square feet (66,000 sq. m.) by the middle of the year and go on to manufacture its standard equipment for customers outside China, too.

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Zhu Kai Lin, Managing Director of Jiangxi Jinrui and the proud recipient of the 1,000th machine from Qingpu. He now satisfies his customers' growing quality demands with a new Speedmaster CD 102.

INNOVATIONLAB GMBH // HEIDELBERG PRINTS ELECTRONICS

GERMANY. The spectrum of potential applications in the area of printed electronics is huge, ranging from solar cell films and ultra-thin illuminated tiles through to "wallpaperable" televisions. What may sound like concepts out of a science fiction movie are actually slowly taking shape in the halls of the Heidelberger InnovationLab GmbH. Researchers here are working on the prototype of a machine that prints electronic circuits on film. On the 17-meter long prototype of Heidelberger Druckmaschinen AG, several layers of electrically conductive materials are printed one on top of the other instead of inks. This gives rise to electronic components that can be produced with low levels of energy and material consumption. Several universities and companies such as Roche Diagnostics, Freudenberg, BASF, Merck and SAP are involved in this research project. The first products to result from this interdisciplinary research institute are "smart" labels equipped, for example, with (temperature) sensors and transmitters. By 2013, it should be possible to produce applications in small batches.



Lab press – in the near future, researchers at InnovationLab GmbH hope to print electronic circuits on film using this 17-meter long prototype from Heidelberg.

HEIDELBERG SYSTEM MANUFACTURING // CONTRACT MANUFACTURING GATHERS SPEED

GERMANY. Today, more and more companies outside the printing industry are benefiting from the technological expertise of Heidelberg. Little more than a year after the foundation of Heidelberg System Manufacturing, Heidelberg technology is increasingly being used in other sectors like the energy and medical technology industries, for example. Customers in these areas value the high-precision castings and mechanical components from Heidelberg as well as the company's power electronics. "We have decades of experience in these areas that are of immediate benefit to our new customers," says Heribert Wille, Head of Heidelberg System Manufacturing. Wille plans to expand his "external" customer base further and establish long-term partnerships in the area of contract manufacturing. info// www.manufacturing.heidelberg.com



Branching out – power electronics from Heidelberg are becoming increasingly popular outside the printing industry.



NEW PMA PROGRAM // PRACTICAL PRINT EXPERIENCE

GERMANY. The new "Print Experience" program of the Print Media Academy (PMA) provides printers from all over the world with a unique opportunity to find out more about the practical print operations of German companies. Participants will visit the PMA in Heidelberg and the plant in Wiesloch-Walldorf and complete a practical "internship" at selected print shops in the Münster area. Here, they can immerse themselves in state-of-the-art production processes, taking in everything from print media design and printing through to postpress. The know-how available through this new program will also benefit other players in the industry, such as successors in family-run businesses, teachers and suppliers. To find out more about the program, which is supported by the Handwerkskammer Bildungszentrum (HBZ, the Training Center of the Chamber of Crafts and Skilled Trades) in Münster, Germany, visit the Print Media Academy Web site. info//www.print-media-academy.com/en/seminars

WORLDSKILLS 2011 // HEI TECH FOR SKILLS COMPETITION

UNITED KINGDOM. Before the Summer Olympics in 2012, London is hosting another international competition. WorldSkills 2011 will see more than 1.000 participants from 50 countries compete in 45 different skills. These will once again include the "discipline" of offset printing, for which Heidelberg is offering active support. In addition to training for the contestants, the company is providing two Speedmaster SM 52 presses and a Polar 78 Guillotine for young people from around the globe to compete on. This demonstrates just how committed Heidelberg is to getting young people interested in the printing trade. WorldSkills is an ideal platform in this respect. The organizers are expecting to welcome around 150,000 guests between October 5th and 8th.

info//www.worldskillslondon2011.com/

POLAR-MOHR // PRECISE ORDER-PICKING WITH PICKSTACK

GERMANY. In response to the huge rise in demand for unwrapped paper for direct press loading, Heidelberg partner POLAR-Mohr has developed a new restacking station. The POLAR PickStack picks unwrapped material automatically, guickly, in precise guantities and with excellent stack quality. This unit enables the simultaneous restacking of two repeats up to a maximum of 29.53 × 20.67 inches (750 × 525 mm) or stacking of a single repeat with formats up to 29.53×41.34 inches (750×1,050 mm). The chip marker makes it possible to process a precisely defined quantity of material. A special hold-down clamp is used with smaller formats up to 16.93×16.93 inches (430×430 mm) or slippery materials. The paper is precisely aligned on three sides before being loaded onto a pallet. What's more, four grippers lock the material in place during delivery to ensure the best possible stacking accuracy. This process is very

fast and fully automatic – even during format changes.

info // www.polar-mohr.com



At the first WorldSkills in 2005, Jordan Poulain (Belgium), Benjamin Balasunderam (Germany) and Stefan Durrer (Switzerland) won prizes.



Fast and precise – the compact PickStack restacking station from POLAR-Mohr, which picks unwrapped paper automatically and in precise quantities.

NEW PROFI TIP // ECOLOGICAL PRINTING

GERMANY. Anyone looking to profit from the huge rise in demand for "green" print products will find a host of helpful suggestions in the latest Profi Tip published by the Print Media Academy. The "Ecological Printing" brochure provides a brief overview of the key developments in this trend and explains how you can reap the benefits. Divided into seven chapters, this guide tells readers everything they need to know about various crucial factors, such as consumables, print shop operations, carbon offsetting, employee motivation and communication. Profi Tip No. 6 also highlights a number of ways to put government subsidies to work and gives tips on how to kick-start environmentally-friendly print shop operations. The brochure is available in German and English. Further information can be found on the Print Media Academy Web site: info//www.print-media-academy.com/en/publications CONFERENCE AT HEIDELBERG RUSSIA // TOMORROW'S MEDIA WORLD

RUSSIA. With a new year just around the corner, Heidelberg Russia organized a conference with high-profile speakers to discuss the future development of print media. Participants included representatives of media associations, publishing companies, print shops, Internet platforms and app developers. The event was hosted by the prominent author, TV and radio presenter Vladimir Solovyov, who has vast experience in all kinds of media. Following a lively debate, Solovyov concluded that if an information medium disappears from the market, it was not good enough in the first place. He said this applied equally to Internet contents and print titles. "That's why I pay about as much attention to market forecasts as I do to my horoscope," the largerthan-life figure with strident views said at the end of the conference.

AUTOMATIC CASE PACKER // CARTONS ON THE MOVE

GERMANY. Heidelberg now offers a case packer for the Stitchmaster ST 350 and ST 450 saddlestitchers. With the ability to shape, fill and glue up to 300 cartons an hour, this inline case packer (downstream of the compensating stacker and banderole machine) dramatically accelerates the packing process for wirestitched products. It eliminates grueling and time-consuming manual work and increases productivity significantly. At the same time, the products being packed are far better protected thanks to the use of reusable click cartons made of corrugated board instead of singlewall cardboard cartons. The case packer processes A4, A5, A6 and DL products in portrait or landscape format. Two carton formats are available at present - in dimensions ($W \times D \times H$) of 12.01 \times 8.46 \times 8.66 inches (305×215×220 mm) and 12.60×8.46×8.66 inches (320×215×220 mm).



Ecological Printing – the latest Profi Tip from the Print Media Academy shows how economic sense can go hand-in-hand with ecology.



Between publisher Alexander Amangeldiyev (left) and app programmer Vitaly Dubinin (right) stands star journalist Vladimir Solovyov, who hosted the future-focused conference organized by Heidelberg Russia.



Productivity increase – the new inline case packer from Heidelberg automatically gathers and arranges product piles before packing them in corrugated cartons.



HEIDELBERG GOES SOCIAL MEDIA//

NEW SOURCES OF ONLINE INFORMATION

GERMANY. Social media comes in a range of shapes and sizes – it can be a platform for those who feel the need to share information, a sounding board for pubescent teenagers or a party guide for night owls. Now and again, however, the unending world of the Web can also throw up useful pieces of information. On YouTube, for example, you can access moving images that illustrate the workings of a number of HEI Tech products and explain the user benefits. Facebook gives you the low-down on the latest information from Heidelberg and allows you to share ideas and experiences with other users. And Twitter is the perfect solution for keeping up-to-date with Heidelberg news – either at home or on the move. The company is planning to expand its offering in these areas in the future. Why not take a look?

info // www.heidelberg.com/youtube www.heidelberg.com/facebook www.heidelberg.com/twitter



Heidelberg online: Now on YouTube (image), Facebook and Twitter.

HEIDELBERG ONLINE // PRINTING ELECTRONICS ON FILM

GERMANY. At first glance, the 17-meter long prototype developed by Heidelberg for Innovation Lab GmbH (see Spectrum News on page 24) looks rather nondescript. In actual fact, it represents a revolution in the print industry and in a growth market for which experts are forecasting sales in the multi-digit billion dollar range in the decades ahead.

Instead of reproducing letters and images, this prototype prints conductive polymers on films for use as electronic circuits in solar cells, flexible displays, large organic LEDs, sensors or even illuminated wallpaper. You can find out how this new technology works, what opportunities it offers and how print shops can profit from this new line of business in Edition 17 of the Heidelberg online newsletter.

In addition to the *Heidelberg News*, *Heidelberg online* publishes information about trends in the print industry on a regular basis. The email newsletter emphasizes reports on innovations, product news, applications and general news from the world of Heidelberg. Subscribe to the newsletter at www.heidelberg.com. Besides the international version in English, you can read a local version in 23 different languages. **info//**Subscribe to Heidelberg online for free: www.heidelberg.com/en/newsletter/subscribe

Browse through all previous issues of the newsletter: www.heidelberg.com/en/newsletter/overview

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The informative Heidelberg Online e-mail newsletter brings you the very latest trends and news from Heidelberg.

Plugging the Gap

SPEEDMASTER CX 102 // The Speedmaster CX 102 is Heidelbergs response to the ever greater needs of the market and is already a resounding success. Numerous technologies that were previously reserved for the Peak Performance Class provide a real boost to the performance of the new flagship press in the 102 series. This all-rounder also allows flexible configuration for virtually any application. All this makes the Speedmaster CX 102 an attractive unit for packaging, label and industrial commercial printers.

he Speedmaster CX 102 turned heads when it was unveiled to the world at IPEX 2010 in Birmingham, UK. Since then, more and more print shops have seen the benefits of this press. Numerous customers from all over the world have already ordered the new press from Heidelberg and demand continues to grow unabated. "The Speedmaster CX 102 is an overwhelming success that shows we've understood many customers' current needs and requirements," says a delighted Rainer Wolf, Product Manager at Heidelberg. "It's the right press at the right time, as it offers excellent value for money and gives large numbers of print shops immense opportunities to develop and expand their industrial production operations."

The best of two worlds. There's no doubt about it – developers at Heidelberg have scored a bull's eye. With a maximum speed of 16,500 sheets per hour, the new press lies exactly between the Speedmaster CD 102 and XL 105 models. ▶



Prinect Press Center

The Prinect Press Center combines all control functions for the press, color and register in a single central console

Dynamic sheet brake

The dynamic sheet brake ensures smooth production, even when using problematic substrates

Preset Plus Delivery

The Preset Plus Delivery adopts presetting data to ensure high-precision pile formation with minimum makeready times.



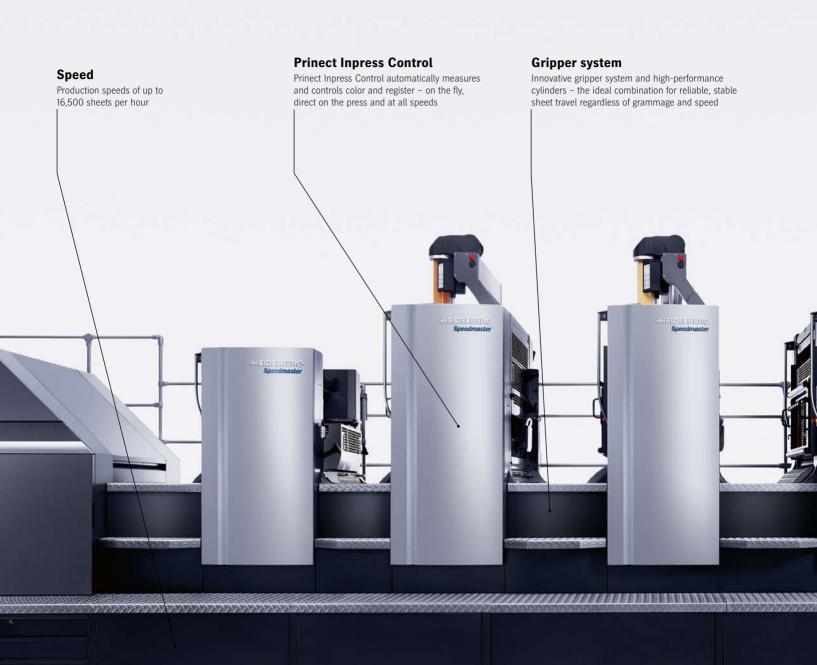
SIDNEY ANVERSA VICTOR // CONGRAF – INDÚSTRIA GRÁFICA SÃO PAULO, BRAZIL

We are primarily a packaging printer for cosmetic products but are looking to expand our packaging

range into other areas. In 2007, we invested in a Speedmaster CD 102 six-color press with coating unit. When we embarked on our search for another press a few months ago, Heidelberg introduced us to the new Speedmaster CX 102. We soon realized the press offers us

enormous scope in terms of productivity, quality and competitiveness in pricing structures. That's why we were also the first print shop in South America to opt for a Speedmaster CX 102.

Our Speedmaster CX 102 six-color press with coating unit and enhanced feeder and delivery can be used flexibly for all packaging jobs. We achieve very short makeready times and excellent results that offer absolute color stability – even at maximum speeds. Our printers give the Speedmaster CX 102 ten out of ten. I myself am delighted with the press, which has come onto the market at just the right time and is perfect for meeting our ambitious growth targets.





BRUNO BARBIER // GENERAL MANAGER, DESBOUIS GRESIL IMPRIMEUR MONTGERON (PARIS), FRANCE

When we were choosing our new press, we had a

clear goal in mind – to drive forward the industrialization of our production facilities. We first analyzed our customer and job structure very carefully before defining our requirements for productivity, quality and resource consumption. Heidelberg then showed us the new Speedmaster CX 102 and, as it turned out, the press met every single one of our requirements. Our four-color Speedmaster CX 102 with coating unit performs impressively right along the line. The technology of the XL 105 series and high level of automation ensure fast makeready times and significantly reduce unproductive waiting times during job changes. Thanks to Prinect Inpress Control, we achieve color-stable results at all times. The inking-up process is fast, which means we use far less paper. What's more, the FilterStar Compact, InkStar and WashStar components have made a measurable contribution to improving our environmental credentials. As a company certified to ISO 14001, this is a particularly pleasing result. The Speedmaster CX 102 is also mid-way between the two when it comes to the technology. The new model is based on the proven Speedmaster CD 102 platform. Numerous high-performance components have been borrowed from the XL 105 and were incorporated into the press design from the very outset. The Speedmaster CX 102 is equipped with the dynamic sheet brake and the fully automated Preset Plus Feeder and Preset Plus Delivery. And it also features a more robust printing unit construction that prevents disruptive vibrations and ensures smooth, reliable sheet travel even at maximum speed. The gripper system and cylinder bearings also draw on peak performance technologies that were previously reserved exclusively for the XL series.

Flexible all-rounder. The result is a state-of-the-art, high-performance machine that is the perfect addition to the Heidelberg portfolio in the key 27.56×39.37 inches (70×100 cm) format class. "Whatever the requirements for speed and productivity, the Speedmaster CD 102, CX 102 and XL 105 models enable us to offer every customer the right solution for every market," says Wolf. "The Speedmaster CX 102 is an attractive offering for print shops that have long been impressed by the innovations of the Peak Performance Class but don't need the capacity of a press such as the Speedmaster XL 105."

The press is also sapid to users because the modular structure of the Speedmaster CX 102 allows customized configurations for virtually every application. The range extends from the conventional four-color press and dual-coating configurations to the Duo press with coating units upstream and downstream of the offset printing units. Further options are also available, for example for UV or alternating conventional and UV printing, for special applications in combination with the FoilStar cold foil module and for processing reel stock using the CutStar sheeter. Whatever packaging, label and premium commercial printers are looking for, the Speedmaster CX 102 makes it possible.

High net productivity. The standard features of the Speedmaster CX 102 show that high speed and versatility were not the only key factors for Heidelberg when developing the press. Maximum net productivity was at the very top of the wish list. The scope of supply includes the Preset Plus Feeder and Preset Plus Delivery. These perform all format- and substrate-specific settings fully automatically. Monitoring systems integrated into the feeder such as ultrasonic and pull lay double-sheet detectors ensure problem-free production even at maximum speed on thin paper, plastic film and stiff board. Thanks to the AirTransfer system, even critical substrates are fed through all the printing units to the delivery contact- and mark-free. Plates can also be changed fast and with maximum register accuracy thanks to Autoplate, while peripherals from the Star range ensure optimum temperature control and highly efficient supply of, for example, air and dampening solution to the press.

The inking units of the Speedmaster CX 102 save even more time and cut even more paper waste than in the past. Fast ink changes are made possible by using an ink duct foil to ensure flexibility in day-

Reinforced printing unit

The reinforced printing unit design reduces vibrations – ensuring smooth running even at maximum speed







WALTER RENNERS // MANAGING DIRECTOR, REHMS-DRUCK GMBH BORKEN, GERMANY

As a full-service print shop specializing in dialog marketing and packaging printing for medium runs, we need short makeready times for fast job changes. That is why I was impressed right away when I saw the new Speedmaster CX 102 at IPEX in Birmingham. The press delivers a high degree of automation, and I was especially interested to discover that the key XL technologies are now also available for the 3B plate format, which is the one we use most. We opted for a five-color Speedmaster CX 102 with coating unit and Prinect Inpress Control to replace an older CD 102. With the new press, we frequently print even short runs at the maximum speed of 16,500 sheets per hour. The reinforced construction of the printing units enables extremely smooth running, which ought to ensure that the print results remain at a consistently high level for many years to come, even under high loads. I am also impressed with Prinect Inpress Control. The inline measurement concept allows us to handle many jobs with short makeready times one after the other to a high quality standard. We plan to implement Prinect Image Control soon, too – and then we'll have our dream configuration in place. to-day operations. In addition, Heidelberg's intelligent preinking programs and an accelerated inking-unit response minimize waste at setup.

The new press from Heidelberg is controlled via the high-performance Prinect Press Center control station, which brings together all press, color and register settings in a central console. In tandem with the Intellistart process-oriented operator guidance system, the interactive system ensures excellent reliability and less legwork for operators during job changes. While one job is still in production, the operator can be accessing the next one, for example. Intellistart then analyzes the next job and determines the necessary makeready processes. These are then worked through automatically when the job is changed. "What the press can perform automatically is implemented right away. Processes requiring manual intervention by the printer need to be acknowledged," explains Wolf. "But here, too, we provide support for operators. For instance, when changing ink, Intellistart detects if the ink fountain is opened and starts washing the inking unit automatically - the operator no longer needs to walk from the printing unit to the control station."

Open for more. Depending on the press configuration, intended use and requirements, the Speedmaster CX 102 can be fitted with components that further increase user-friendliness and productivity. One example is Prinect Inpress Control. This spectrophotometric color measuring and control system checks color values and register accuracy directly in the press. This results in clear time and paper savings during makeready and consistent print quality over the entire run, as Prinect Inpress Control performs continuous adjustment during production and also documents this.

Suitable dryer systems are also available for each press configuration, such as the DryStar Combination for water-based coatings. The dryer, which is integrated in the delivery, combines infrared, hot-air and circulating-air modules that are fitted particularly close to the sheet as it passes through. This enables outstanding drying results while also keeping energy consumption to a minimum.

The PowderStar AP 500 is a high-performance, high-efficiency powder spray device for the Speedmaster CX 102. A total of 24 nozzles ensure particularly uniform and economical powder application over the entire sheet. Since powder is applied at high pressure, there is virtually no turbulence. This minimizes powder consumption even at maximum speed. Wash intervals in perfecting mode are also reduced significantly.

While these and many other peripherals in the Star range from Heidelberg dovetail perfectly with the Speedmaster CX 102, integration into the Prinect print shop workflow also saves time and money. The large wallscreen gives printers a reliable overview of the current status and other tasks, while jobs can be controlled intuitively by means of the touchscreen.

Economical and eco-friendly. As usual at Heidelberg, great emphasis was placed on ensuring a high level of environmental compatibility when developing the Speedmaster CX 102. The press is ideal for

alcohol-free printing. It also exhibits particularly low energy consumption values. This makes it one of the most eco-friendly presses on the market.

As a visible symbol of these qualities, it bears the "SGS TÜV Geprüftes Produkt" quality seal. It is also certified as a low-emission press. "The Speedmaster CX 102 is a highly attractive package combining productivity, flexibility and cost and environmental efficiency," says Wolf. "It enables customers to be at the cutting edge while continuing to work in the same plate format." ■



Live and in action ...

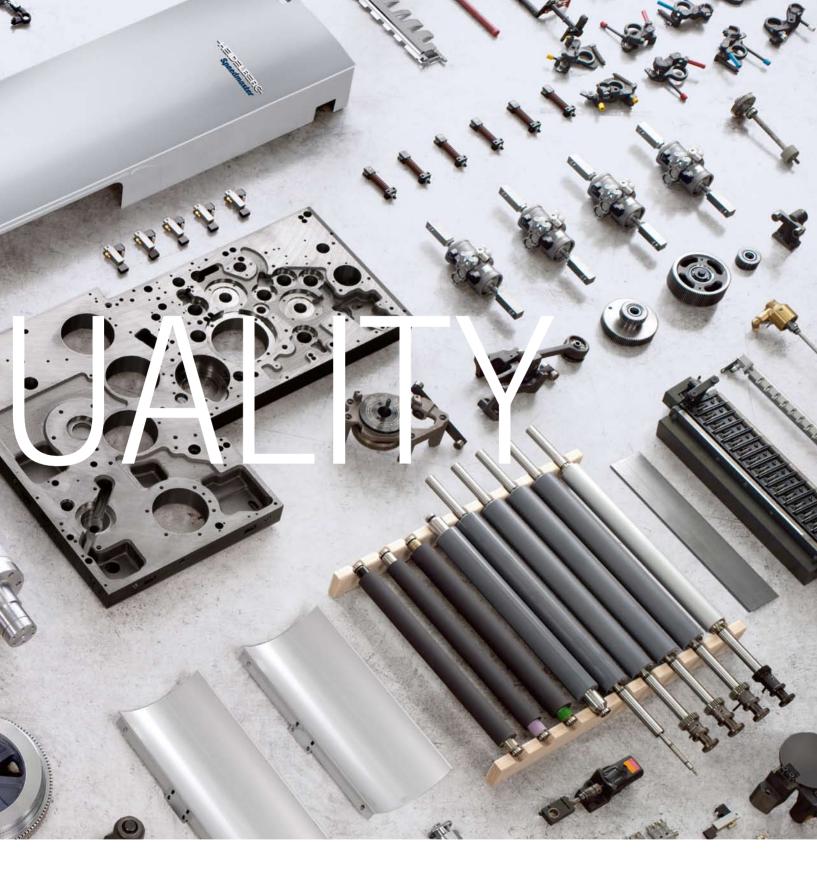
The Speedmaster CX 102 can be seen live in action when the QR code below is scanned in with a smartphone. The code leads directly to a link on the Heidelberg Channel on YouTube and automatically starts a video clip. Anyone who doesn't have a smartphone at hand can simply enter the link in the address field of a browser.



http://www.youtube.com/heidelbergerdruck#p/c/ A06D0C508171BF3B/25/MGDQMwwUSK0



Perfect printed products require first-rate tools. High quality is your demand – and ours too. You create the team; we provide the ideal equipment and corresponding service. From the smallest of gears to a complete production workflow, you can depend on Heidelberg. **www.heidelberg.com**







From Insurance to Shape-up Program

HEIDELBERG SERVICES // About a year ago, Heidelberg consolidated its entire service portfolio under a separate division. *Heidelberg News* spoke to the Management Board member responsible for Heidelberg Services, Marcel Kießling, about what has happened since then, the advantages of Heidelberg Services for the customer, and the new services that can be expected in the near future.

Mr. Kießling, you became head of the new "Heidelberg Services" division on January 1, 2010. What goals did you set yourself then?

Marcel Kießling: There were two main strategic approaches. First, we wanted to realign our entire service portfolio to make it as efficient as possible for our customers and, above all, to maximize the benefits for them. We also wanted to expand our services business to make us less "susceptible" to the economic fluctuations in the mechanical engineering sector.

Did the crisis not throw a monkey wrench in the project from the start? The service sector is personnel-intensive, and Heidelberg has had to make several rounds of personnel cutbacks...

Kießling: That was sadly unavoidable. However, the adjustments made in the services sector were relatively moderate. With more than 4,000 Systemservice employees worldwide, our customers still have access to the densest service network in the industry. And by establishing a separate Heidelberg Services division, we have created the ideal conditions for ensuring the best possible service portfolio for our customers. We were not only able to maintain our service level, we even improved it.

How did you improve your service level?

Kießling: When it comes to "services," the printing industry traditionally thinks of technical services. With good cause. My

production operations can only be profitable if I have a high-performance print shop that is absolutely reliable around the clock, even when running at full capacity. But even if production is perfectly stable, long-term success is no longer guaranteed in the increasingly industrialized global printing market. Competition is becoming more and more international. Pressure on margins is growing. At the same time, the market is also calling for Web-to-print solutions or "green" production. If I want to succeed in this environment, I have to minimize my costs, increase my productivity and adjust all my processes to this end. At the end of the day, I have to make all my operations as effective and efficient as possible, not "just" the machine park. That's why our portfolio now extends well beyond technical services. With our additional training and advisory services, we can help our customers improve efficiency throughout their entire company.

Let's stick with traditional services for the minute. What can you offer your customers in this field and, most importantly, how do they benefit?

Kießling: As I mentioned, our first priority is to ensure the availability of the machine park and stable production in every business. We have incorporated everything that contributes to this in the "Technical Services and Consumables" group. This includes



Marcel Kießling// MEMBER OF THE MANAGEMENT BOARD RESPONSIBLE FOR HEIDELBERG SERVICES

Marcel Kießling joined the Management Board of Heidelberger Druckmaschinen AG with responsibility for Heidelberg Services in January 2010. Previously, he headed up Lead Market Atlanta (U.S.), where from 2004 onwards he occupied the role of President Heidelberg Americas, Inc. and Manager of the America region. Kießling made the leap to the U.S. as Chairman of the Management Board of Heidelberger Druckmaschinen Vertrieb Deutschland GmbH and Head of the Market Center Germany/ Switzerland.

As a business graduate, Kießling started his career at Heidelberg in 1989 in Product Management, Small Offset Presses. His hobbies include soccer, reading and good food. However, Kießling likes to spend most of his free time with his wife and two sons. service and maintenance contracts, such as Systemservice36plus and customized Partner Programs, which prevent downtime. Inks, coatings, printing plates and other consumables from our Saphira portfolio also help ensure smooth production, as they are perfectly coordinated with our machines. Application-specific starter kits, for example, are just as helpful for startups as they are for certification for ISO 12647-2. If you encounter a problem at any stage, many problems can be resolved quickly and easily via our Remote Service concept or eCall. And if spare parts are needed, they can be delivered to you in minimal time. You can therefore save a lot of time and worry with a customized technical service package.

That makes this service group sound like a type of "insurance." And insurance costs money. How much are we talking?

Kießling: To stick with your image, it depends on the individual "scope of insurance," and that is best discussed with your contact at Heidelberg. But regardless of what cover you opt for, your "insurance premium" will undoubtedly be much less than the cost of a sudden production outage or unsatisfied customers deciding to move elsewhere.

OK, it goes without saying that I want to keep my customers. But how can I generate more business with them?

Kießling: The usual methods are by cutting costs and tapping into new fields of business. That means optimizing production and management processes, focusing on your own portfolio and training all relevant employees. This is exactly where our second service category comes into its own. We have called this group "Performance Services" because it aims to improve performance throughout the entire print shop.

How exactly?

Kießling: Let's start with production processes. In many businesses, color management alone eats up far too much time. Time is money, and you can save a lot of both with a standardized offset printing process. Our Prinect modules are the perfect tool for the job. By taking part in a "print color management" training course, you will learn everything you need to know on the topic. And while we're on the subject, Prinect is an incredibly valuable tool for cutting costs and increasing productivity, from the "Prinect S" workflow solution designed specifically for smaller businesses to the complete integration of all processes in a print shop workflow. Customers opting for Prinect will generally recover their investment within a year. Some companies save between six and 32 times their original investment after just five years! Prinect speeds up not only production but also the associated administrative processes.

And what if my job handling already runs like clockwork thanks to a high degree of automation?

Kießling: We can still help you even then – for instance, by optimizing the material flow in your print shop. Or you can choose to maximize the performance of your entire company and not just your production environment. Our experienced advisers can help you in both cases.

So you're actually talking about a type of "business consulting" that also creates added value beyond the confines of my machine park?

Kießling: That's right. We analyze your business model from scratch – what jobs generate the most money for you? Where are your costs too high? Where is there untapped potential? How can you harness this? To answer these questions, you need a lot of expertise in the field of business management. After all, you have to check the profitability of the entire company and reach the

"As a rough guide, the average print shop in many industrialized nations generates a profit on sales of just 1.5 percent. However, the best companies generate 10 percent or more. This shows that there is still enormous dormant potential in many companies."

right conclusions based on your findings. That's why our advisers scrutinize your order and cost structures, production data, the machine park and market perspectives before putting together the most promising recommendations based on validated facts and figures. You therefore have a far greater degree of certainty when making decisions. Such processes involve trust, of course, but it's worth it.

Can you quantify the chances of success?

Kießling: It's hard to generalize because every company has a different starting point and implements different measures. We had some customers whose productivity – based on one job – rose by 50 to 90 percent. Other companies have seen a 20 percent rise in sales by exploiting new business areas. As a rough guide, the average print shop in many industrialized nations generates a profit on sales of just 1.5 percent. However, the best companies generate 10 percent or more. This shows that there is still enormous dormant potential in many companies.

But this discrepancy also shows that some businesses obviously need to shape up. And that can be hard to hear.

Kießling: True. That's why we don't just leave our customers to their own devices. Quite the opposite. We accompany them each and every step of the way with the training and advice offered by the Print Media Academy. We don't just teach people how to use new machines. We also teach production managers about new types of IT infrastructure and impart practical and strategic management know-how to executives. We also offer print shops training on how to improve direct marketing. In other words, we provide end-to-end support for the duration of the change process. The "Performance Services" concept really does cover all key success factors for our customers.

Including the trend towards "green printing"?

Kießling: Of course. Optimizing print shop workflows means you automatically save energy, paper, ink, chemicals and the like. In Germany, for example, a CO_2 footprint platform providing information on ways and means of achieving climate-neutral printing has just gone online. And we are currently in the process of introducing a "Saphira Eco" series of environmentally-friendly consumables internationally, many of which even have an ecological seal of approval.

OK, one last question. There is roughly one year to go before drupa. What new service products will you be presenting at this trade show?

Kießling: We are currently working on significantly expanding our Remote Service functions, further optimizing the link between management information systems and Prinect, and creating a high-performance Web-to-print solution. We want to expand the Prinect Digital Print Manager and qualify corresponding Saphira consumables. We will also be showcasing a Prinect performance benchmarking tool that works via an online portal – in other words, a vast array of solutions that will really pay off for our customers.



Small Workflow with a Big Impact

PRINECT S // Smaller print shops can now hand over time-consuming tasks to Prinect S. This compact integration solution simplifies and speeds up print production and paves the way for innovative business models. Eggers Druck & Verlag GmbH in Heiligenhafen shows how it works.



hen the Suprasetter peeps, Olaf Eggers removes the imaged plates from the cassette and beams proudly. "We now have an automated process for turning orders into printing plates – and we can do so at the click of a mouse," says the Managing Director of Eggers Druck & Verlag GmbH. The commercial print shop in Heiligenhafen, with a workforce of 27, really came into its own in fall 2010 thanks to the Prinect S print shop workflow from Heidelberg.

A quick look in the pressroom, where business and commercial print products in a range of corporate designs are stacking up, reveals why this is the case. "We specialize in customer-specific solutions, offering services that are not covered by system printers," says Eggers. This includes, above all, commercial print products involving special formats, paper grades, inks and surface finishes. However, Eggers – who represents the fourth generation of this family-run business – is not satisfied with just standing out from the crowd. He wants the company to be the market and technology leader. "To offer competitive prices, we need to extensively automate our special solutions and, where possible, offer online services," he explains.

Compact and clever. That is why he equipped two workstations with the new workflow software. Prinect S is installed on a single hardware platform and combines prepress and press. The solution includes Prepress Manager S and Pressroom Manager.

"Prinect S is ideal for small print shops like us. It is compact, easy to operate and quick to install," says Eggers when asked why the company opted for this solution. Previously, the company used the RIP software Prinect MetaDimension and print shop software that was developed in cooperation with an IT company and ran on various computers. "The new all-in-one solution is far more efficient. It simplifies and speeds up prepress because all the information and functions are located in a single system," says Eggers.

Prepress employees have access to all the information they need for fast, job-based processing via Prinect Cockpit, a user-oriented interface. The requisite job data is displayed directly on the screen by the management information system (MIS) using JDF. The job number indicates right away, for example, which PDFs belong to which job or which screen should be used. The print data can be controlled centrally at the click of a mouse. This avoids time-consuming queries and customer complaints. "When customers request a different screen or color space, for example, there is a real risk that the operator will miss this change and mess up the order," explains Eggers. "Prinect S ensures greater reliability."

Administrators enter the basic job data in MIS as soon as a job is accepted and this information is then used for the entire production process in the form of a digital job ticket. This dispenses with the need for multiple entries, which in turn eliminates sources of error. Prepress employees adopt the incoming data and supplement it as necessary. They use the PDF, for example, to determine the trim or to reduce the ink layer thickness for improved drying performance. "Once a job has been entered properly the first time, it can run automatically in the future," says Eggers. This is true of standard jobs, such as periodicals, where the content changes but the job data

Prinect Renderer

The Prinect Renderer is used to create high-resolution bitmaps using all the tried-and-tested screening methods supported by MetaDimension RIP. It also uses the full functionality of the Adobe PDF Print Engine for reliable implementation of special effects and colors in the RIP (ICC-based color management).

Print zone presetting

Prinect S also offers a user-friendly solution for generating presetting data for the press. The Prinect Renderer creates the required preview of the print sheet on demand, while the integrated Prinect Pressroom Manager calculates the ink pick-up for each print zone and transmits the values directly to the press.



Job-based workflow

The Prepress Manager S takes a job-based approach. As the system understands JDF, it can adopt the header data of a job, such as the name or number, directly from an MIS system. It also understands the relationship between several files, which it assigns to a single job. This speeds up the processes further and prevents errors in production.



PDF Print Engine

The Prepress Manager S standard package includes all the functions needed to preflight PDFs and, using the sheet layout from the SignaStation or the Imposition Editor, to imposition, rip or transfer them to the recorder for imaging. The PDF Print Engine also enables native PDF processing throughout all the production stages of a print shop.



Prinect Pressroom Manager

The integrated Prinect Pressroom Manager combines all the job-based information, calculates the ink pick-up for each print zone and makes sure that print jobs are automatically sent to the right press at the right time. The efficient use of presetting data minimizes makeready times and cuts paper waste. remains the same. In this case, it is sufficient to combine the JDF and PDF and trigger the workflow. Prinect S takes care of the conversion, preflighting, impositioning, trapping, rendering and ripping. "This simplifies our job considerably and saves a lot of time," says Eggers, who is more than happy with the solution. One key time-saving factor is that the print shop no longer has to convert several layers into one, because the integrated Adobe Print Engine handles these kinds of special effects very reliably.

Paving the way for Web-to-print. Eggers is confident that this solution will be a real boost for the print shop's online business. Eggers Druck & Verlag GmbH designs and operates customized B2B shops for companies like Renault Deutschland and Sharp, the electronics group. Authorized employees can use these Internet portals to order print products. In the future, the connection to Prinect S should enable jobs to run through prepress fully automatically. This is how it works: As soon as an order is placed with the online shop, the data is sent directly to the Prinect S system for processing. The solution prepares the print data and sends it to the Suprasetter. "This endto-end integration will save a great deal of time, take the pressure off prepress employees and increase capacity," says Eggers with a view to the future. Generating extra capacities is a top priority at present, because a new online shop is to be opened every month this year. This new line of business would be inconceivable without automation. That is why Eggers has now also integrated his pressroom into the Prinect workflow - with the Pressroom Manager. No sooner has the managing director taken this step than he is thinking ahead to the next one, when he intends to connect postpress to the Postpress Manager, too. Eggers is completely satisfied: "Thanks to Prinect S, we can continue to offer our customers first-class quality at low prices while ensuring profitable growth for our company."



Prinect Cockpit

Prinect Cockpit is the user interface of the print shop workflow. This central control unit facilitates fast access to all the parameters, which can be changed at the click of a mouse. Prinect Cockpit delivers maximum transparency and even faster processing.

Further Information www.heidelberg.com/en/Prinect_S

FOCUS INNOVATION

All-round Perfection – Faster Die Cutting with the Speedmaster XL 105-D

IN-MOLD LABEL PRODUCTION // The new Speedmaster XL 105-D from Heidelberg processes up to 10,000 sheets per hour and is ready for action after around just 15 minutes. The rotary die cutter, specially developed for processing in-mold labels, has two units and offers benefits in makeready and production times.

Something new ... //

The Speedmaster XL 105-D from Heidelberg raises the bar in in-mold label production. Based on the proven technology of the Speedmaster XL 105, its standard features include the Preset Plus Feeder and a foil package for the feeder, die cutting unit and delivery that ensures problem-free processing of critical plastic materials. Whereas the clamping process when changing the die cutting plate is performed manually, machine positioning and adjusting the pressing roller are carried out automatically. Two suction segment disks, sheet guide plates with Venturi technology, and the dynamic sheet brake ensure reliable transport and delivery with neatly aligned edges. They also prevent premature stripping of blanks, which takes place manually.

The benefits ... //

The technology of the Speedmaster XL 105 also delivers high productivity and quality in die cutting. It takes just 15 minutes to set up the Speedmaster XL 105-D, with production running up to 10,000 sheets per hour. No separate makeready is required, thanks to the precision of the cylinders and the die cutting form. Foils with a thickness of 0.0012 to 0.012 inches (0.03 to 0.3 mm) can be processed. And while "push-through" die cutters can only be used for label sizes up to 15.75 inches (400 mm), the maximum die cutting format of the Speedmaster XL 105-D is 29.13×41.34 inches (740×1,050 mm). A further benefit is the more than 50 percent reduction in tool costs for runs up to 500,000 sheets compared to flatbed die cutters.

The options ... //

The Speedmaster XL 105-D is currently approved exclusively for in-mold label production. However, Heidelberg is already working on an enhancement to the machine, also enabling embossing and die cutting of paper labels and thin cardboard in the future. ■



PRINT GOES WEB // QR codes, smart visuals and augmented reality transform classic print products into interactive media that offer additional content and can be shared with other users via Facebook, Twitter, etc. But how can print shops benefit from these new opportunities?

he year 2010 was a particularly interesting year for anyone who makes their money producing media. A recent study revealed that there were some 2 billion Internet users in 2010. The number of Facebook users grew from 350 million in the previous year to 600 million, all sharing some 360 billion items of content such as links, pictures and videos. In the same period, 175 million Twitter users sent a total of around 25 billion tweets, while videos on YouTube attracted over 700 billion hits.

None of these figures are really all that surprising. Since Sir Tim Berners-Lee developed the "World Wide Web" in 1989 at the CERN research institute in Geneva, Switzerland, the number of users has shot up year after year – and by more than 100 percent in the last two years alone. However, these figures do show that, besides growing, the Internet is also changing. Just a few years ago, the main purpose of the Web was to link up computers. Today, it is people who are being networked, as they seek to share their day-to-day lives, videos and other online content with others via Facebook or Twitter. For these people, the Internet is much more than simply a medium for information. It is the very foundation of their digital lifestyles. And these digital lifestyles have a little less room in them for print products, for one very simple reason – they are not to share with others via social media.



http://www.youtube.com/watch?v=nwgcs3beCpg

Print gets interactive. That is precisely what is changing at the moment. This change is being driven by a whole range of innovative technologies that are helping to seamlessly integrate printed products with the Internet. One of these bridging technologies has been around since 1994 – QR code. A QR code comprises a square box containing a black and white pattern and is often printed on packaging, magazines and posters as a means of supplying additional information to complement an image. If the coded pattern is held up to a webcam or a smartphone camera, a special software package can be used to convert the code into a link. This link then leads to further information online, or even directly to an online shop where the user can buy the advertised product or tickets for a particular event.

Admittedly, given that it has been around since 1994, it hardly qualifies as a recent innovation. In fact, 96 percent of people in Japan over 14 years old are already familiar with QR codes, and 73 percent have used them. Outside Japan, however, their full potential has yet to be realized. In Germany, for example, around half the population have no idea what QR codes are. And only 25 percent have ever used a code or smart tag. But there are very promising signs that the use of smart tags is set to boom in western industrialized nations. Cell phones such as the iPhone and Android devices are making the Web truly mobile. This technology makes it easy for consumers to use codes



http://www.youtube.com/watch?v=wtCF8degnFw

and the associated additional applications spontaneously, whenever and wherever they like. And the market for smartphones is growing almost as fast as social media. More than 302 million smartphones were sold worldwide in 2010 – around 74.5 percent more than in 2009. And it is estimated that more people will be surfing the net from their smartphone than from their PC by as early as 2013.

Diverse range of potential applications. It is difficult to predict exactly how social media and the trend towards mobile smartphonebased Internet use will affect the printing market. However, it is a fact that more and more publishing and media houses, advertising agencies, government offices and designers are working on a diverse range of Print-to-web projects to combine the benefits of print products with those of the Internet and social media. Although some of these projects are just an entertaining sideline, others are truly pioneering concepts.

One such example is extended or smart packaging. The idea behind this concept is to incorporate a QR code into packaging that provides users with additional information about a product. This information may be about ingredients that could cause an allergic reaction, logistical details or – in the case of meat products – it might be the product's origin and slaughter date. Heidelberg also offers One Tag, a forgery-proof solution that generates random QR codes and prints them on packaging, labels or blister packs. Using the

corresponding smartphone app, consumers or intermediaries can then check the product's authenticity or call up detailed logistics information to learn more.

There are also interesting examples in the magazine and newspaper market that are designed to make articles from print media available for further use on the Internet or social media platforms such as Facebook and Twitter. The cornerstone of these is the "Paperboy" smartphone app from Kooaba. This software can identify articles from a "kooabized" print title and make them available for further interactive online use on a smartphone and in their original layout. In Switzerland, around 20 titles are already available via Paperboy. In Germany, three titles have been made available to date – computer magazine *Chip*, the *Handelsblatt* newspaper and the current affairs magazine *Focus*.

The Paperboy app is a further development of the QR code principle but does not need printed black and white boxes. Instead, it uses the individual pages of the print product themselves as a code. As a result, Paperboy has an advantage over QR code and similar technologies, since the appearance of advertisements and magazines remains unaltered. Once users have launched Paperboy on their smartphone and photographed a page of the publication with their phone camera, the interactive content is made available for use on their smartphone. The corresponding page and all its additional digital data can then be shared with others at the touch of a button via e-mail, Facebook and Twitter. Paperboy is also an interesting prospect for the production of product catalogs. For example, the



"Print will remain indispensable but can also benefit significantly from these new opportunities."

HELMUT LORENZ, MEDIENMANUFAKTUR LÖSCH, WAIBLINGEN



http://www.marius-huegli.ch/#1

smartphone app could be used to access additional multimedia information about the products or services described. Moreover, users can also be guided directly to the nearest store via their cell phone's GPS functions or they can be transferred directly to an online store where they can place their order immediately.

"Print will remain indispensable but can also benefit significantly from these new opportunities", explains Helmut Lorenz, who is responsible for Print-to-web at Lösch Medienmanufaktur in Waiblin-



http://www.youtube.com/watch?v=YKN7G9X9pIU

gen, the Paperboy representative in Germany that is promoting "kooabization" of additional titles. "For example, classic print products such as newspapers, catalogs and brochures can leverage incredible added value through interactive elements. This approach makes print an appealing medium even for young target groups, while print shops can also work with us to offer their customers a broader, innovative portfolio."

From Print-to-web to Web-to-print. For Lorenz, smart tags pave the way to dialog-based marketing and offer decisive benefits for consumers and customers. "Mailings, advertisements and posters that offer additional interactive features can trigger an immediate response in consumers that can be efficiently embedded into multistage service and product campaigns," he adds. "What's more, companies can use interactive advertisements to create direct contact with their target group and generate valuable customer data that can be utilized in additional campaigns."

For example, this Print-to-web approach could be used to guide customers via the Internet to a print shop that supports a multi-stage campaign with logistics services, produces individualized brochures or other print products and dispatches them to the respective customers. All this could be achieved efficiently with offset presses – and from the very first run in the case of digital print products.

Do you see what I see? Augmented reality. While Kooaba, Paperboy and QR codes provide additional information, augmented reality goes one step further. Augmented reality superimposes virtual objects on real ones. Streets, parking meters, buildings, technical devices or any other objects are coded and when decoded via a webcam or smartphone are enhanced with an additional dimension in real time. This additional dimension can comprise text, pictures, videos or music.

And naturally all of this works with print products, too. One fascinating example of just such a project comes from Swiss designers Marius Hügli and Martin Kovacovsky, who in 2010 reinterpreted the classic work of fiction "Dr. Jekyll and Mr. Hyde" by Robert Louis Stevenson. Anyone can pick up the new book and read the story, admiring the printed illustrations as they do so. However, if the reader places the book on a table, underneath a webcam, each page springs to life on the computer monitor. Immediately, shadows flit over the pages, candlelight flickers and the letters of words begin to move, while short film sequences help raise the tension.

Magazines such as *Spur* from Japan and the *SZ-Magazin* of the *Süddeutsche Zeitung* newspaper have also used augmented reality technology to enable readers with smartphones to access additional content that remains hidden to others. The technology offers benefits for companies, too. For example, Mini and Porsche have implemented a print-based augmented reality campaign for one of their models. And, in some stores, fans of Lego can take any pack from the shelves and place it under a webcam to see a completed, movable 3D model of the pack's contents.

Despite the diverse range of opportunities that exist right now, though, print shops will have to wait to see just how much they can benefit directly from them. Naturally, multi-stage campaigns with



http://www.youtube.com/watch?v=PGu0N3eL2D0

Web-to-print elements or security solutions in packaging printing can deliver enormous business potential. However, technologies such as smart tagging and augmented reality can be implemented without the need for specific printing know-how. This is where print shops benefit in a more indirect way, as the appeal of interactive print products can boost overall print volumes and therefore capacity utilization. That's why it makes even more sense to work with suitable cooperation partners or build up in-house know-how to position yourself in a market that is only just beginning to take shape. Although a lot of the hype is just white noise, the true overture is underway.



The advertising impact of carrier bags was recognized and used creatively at the start of the 20th century. A recent study shows that particularly striking examples catch the eye of 85 percent of passers-by. Globus

A Permanent Advertisement

BAGS // Quick to grab and incredibly practical, paper and plastic bags are our constant companions on shopping trips. But there is more to these bags than just their contents – they can also convey messages, serve as stylish accessories and sometimes reveal a few secrets about the carrier.

arrier bags, particularly those made of plastic, are the ultimate symbol of today's consumerist and throwaway society. We use shopping bags to transport goods we have bought and then simply throw them away. And yet plastic bags are a relatively new phenomenon. They first appeared on the market in 1953, but only really made a breakthrough in the 1960s when more and more supermarkets provided them at their checkout counters. As they are waterproof and tear-resistant, they quickly left their paper counterparts behind. According to the environmental organization Robin Wood, over 600 billion plastic bags are produced worldwide each year. On average, every German takes home 65 plastic bags a year - and reuses them for various purposes, such as wrapping shoes in suitcases when they go on vacation, as shower caps and even for sledding. The Flexible Packaging Industry (IPV) estimates that around 72 percent of users reuse bags more than three times. Only then do they provide their final service as a garbage bag. •

Spriingli CHOCOLAT CACAO

Hoppenstedt Frische Milchprodukte Birgenheider Straße 26 27777 Ganderfosse

CONDENSED

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"ALDI'S CARRIER BAGS ARE REAL WORKS OF ART."// HISTORIAN AND BAG COLLECTOR HEINZ SCHMIDT-BACHEM TALKS ABOUT PORTABLE ART.

When does a bag become "portable art"?

Heinz Schmidt-Bachem: A carrier bag has to make a statement and capture the attention of passersby. After all, it has only a few seconds to make an impact. Well-designed bags can be an excellent means of advertising. However, this potential is often not exploited to the full in Germany because our carrier bags are often far too lackluster and people really don't want to be seen with boring bags.

Which countries do it better?

Schmidt-Bachem: In my opinion, Switzerland has the bestlooking bags. If a bag catches my eye due to its imaginative, creative or demanding print design, I can be pretty sure that it has been made there. In the 1980s and 1990s, for example, the retailer Migros commissioned artists like Daniel Spoerri, Dieter Roth and Bernhard Luginbühl to design its paper carrier bags. From this edition, Migros had each of the artists number and sign 150 bags, which they then sold by lot for 100 Swiss francs each. Anyone who was lucky enough to get their hands on one of these bags is now the proud owner of a work of art. This had an incredible advertising impact, without the company's name featuring prominently on the bag.

When were the most beautiful bags produced?

Schmidt-Bachem: In the 1970s, 1980s and, in some cases, as late as the early 1990s when pop art and commercial art drew inspiration from each other. Many carrier bags offered free pop art adaptations and were real eye-catchers. People liked being seen with them. I often went up to complete strangers and started talking about their carrier bags.

Which bags still feature artwork today?

Schmidt-Bachem: Aldi's carrier bags are outstanding examples of mass-produced works of art. Both versions – the blue and white of Aldi-Nord and the orange of Aldi-Süd – are prime examples of op art with strict geometric shapes. The Aldi-Nord bags were designed by Günter Fruhtrunk, who was a professor at the Academy of Fine Arts in Munich. And I wonder whether the older version of the Aldi-Süd bag was designed by Josef Albers, one of the founders of op art? At the very least, it is a perfect adaptation of his work. It's really worth taking a closer look at carrier bags. When all is said and done, they are part of our everyday culture – with all its excesses and surprises. EIN VERGLEICH ZWEIER GESELLSCHAFTSFORMEN







Political and practical: While the German artist Joseph Beuys, who died in 1996, used bags to promote political messages, the department store Horten was the first to launch the so called "T-Shirt bags" (left) with handles on the side.

Bearer of advertising – and secrets. Regardless of whether they are made of paper or plastic, our lives would be very different without bags, particularly when we're out shopping. They enable us to make spontaneous purchases, buying more than we could carry with our bare hands, and they spare us the inconvenience of having to always carry a basket around.

Some bags have more than a simple practical use. From time to time, you see bags with handles or shoulder straps that put their contents in the shade. As a "mobile poster," a bag is probably the only medium that is not only a bearer of advertising but also has a "bearer" of its own. The user spreads the message printed on the bag

EXHIBITION OF THE GERMAN DEMOCRATIC REPUBLIC





POLITIKER

BEIM ÖFFNEN BITTE ZURÜCKTRETEN

TASCH

Bags from the former German Democratic Republic (left) and carrier bags designed by artists.

EXHIBITION OF THE GERMAN DEMOCRATIC REPUBLIC

<image>

throughout the city – and not only does so free of charge but also very successfully. Analysis conducted by the IPV indicated that an astonishing 85 percent of passersby look at bags, most often at those with attractive or striking images.

In addition to conveying complex messages, bags also have a symbolic value. Bags from discounters like Aldi and Lidl are seen as signs of low-cost consumerism, while bags with logos of premium brands are often treasured as highly prestigious products and used as accessories.

However, it is often difficult to tell anything about someone's social status just by the bag they are carrying. Marketing expert Björn Stüwe says that although bags may reveal some information about the bearer, such as where he or she shops, they also hide their contents. Secrecy, disguise and deception are all part of the "bag culture." That is why Stüwe believes they are the ideal medium for self promotion. For example, some people are image-conscious and like to use carrier bags to underscore their personality with impressive-sounding brand names, while others like to provoke by using the symbolic value of specific bags to stand out from the crowd by confounding expectations, e.g. by using premium-brand bags when shopping in a discount store or using an Aldi bag when shopping in a stylish boutique. ▶





Almost as old as mankind. Bags are not a new invention. Our early ancestors, for example, rolled up plant leaves into funnel-shaped containers for collecting berries. "It's a simple process and doesn't require any kind of technology," says historian Heinz Schmidt-Bachem. He has researched the history of this everyday object and owns the largest collection of bags in the world. His "Portable Art Museum" in Düren, Germany, is home to around 150,000 bags.

Historically speaking, says Schmidt-Bachem, the Roman poet Martial made the first reference to papyrus bags in the first century A.D. In Germany, paper bags were being folded and twisted by hand from 1390. Mechanical mass production started in the mid-19th century. Bookbinder Gumpert Bodenheim founded the world's first bag factory in Bad Sooden-Allendorf, in central Germany. Simple coneshaped bags were followed by rectangular bags with a flat bottom for a greater holding capacity. Gumpert Bodenheim recognized the advertising potential of bags in 1854 and started printing them with the names or emblems of companies. In 1902, Max Schuschny from Vienna invented carrier bags as we know them today by attaching two cords to a bag to form the handles.

Corn instead of oil. At the end of the 1960s, artists started to use carrier bags to showcase their work. Bags by Roy Lichtenstein and Andy Warhol quickly became sought-after collector's items. The same was true of the 10,000 "social" plastic bags – some of which were signed – that Josef Beuys handed out at the art exhibition documenta 5 in Kassel, Germany, in 1972.

The turning point came during the oil crisis in 1973, when the first criticism was leveled against plastic bags. After all, 2.2 pounds (1 kg) of oil is needed to produce half a kilo of polyethylene. As natural gas and energy is also needed to produce plastic bags, this results in a ratio of 2:1. In other words, a plastic bag weighing around 0.7 ounces (20 g.) requires a good 1.4 ounces (40 g.) or 0.013 gallons (50 ml) of oil, as a liter of oil weighs around 800 g. This means that around 7.92 billion gallons (30 billion liters) of oil is used to create 600 billion plastic bags a year.

LING STON

ATTOO YOU

It is not only this immense consumption of resources that concerns environmentalists. A plastic bag is used on average for around half an hour, but it takes 400 years for it to break down without ever being fully biodegradable. That is why they have been prohibited by numerous countries, most recently Italy, particularly because similar bags made of renewable raw materials, such as corn and potato starch, are now available. Another benefit of these biodegradable bags is that they can also be printed on with ease.

Info

With the exception of the illustration on page 48, all carrier bags shown are part of the Portable Art Museum of Heinz Schmidt-Bachem in Düren, Germany.

Dampening Solutions in Offset Printing



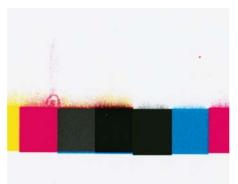
PURITY IS ALL-IMPORTANT // For centuries, the "Purity law" has ensured the outstanding quality of German beer. In the world of offset printing, a similar "law" should also be introduced for dampening solutions – particularly for alcohol-reduced and alcohol-free printing.

The influence of dampening solutions on printing quality is often underestimated. It plays a crucial role alongside the printing plate, blanket and ink. Only after all of these components work in perfect harmony can optimum results be achieved. It therefore stands to reason that due care should be exercised when "brewing" dampening solutions – especially with alcoholreduced and alcohol-free printing.

The process water usually originates from the water tap. Tap water with a consistent hardness level of between 8 dGH and 12 dGH (or around 1.5 – 2.5 millimoles of calcium carbonate per liter) is ideal. If these values are not achieved, the water will need to be treated. The most effective way of doing this is to use a reverse osmosis system that first desalinates the tap water before "re-hardening" it to the precise level required. It is nonetheless worth keeping a constant eye on the hardness level using, for example, test strips. In printing, overly soft water often leads to emulsification and excessively hard water to lime deposits that can damage ink rollers and blankets.

In addition to the level of hardness, the pH value of process water is also significant. If the water is too acidic, the drying process is protracted. If it is too alkaline, this can have an adverse effect on the clean running of the plate. This can be counteracted by using dampening solution additives. When used correctly, these ensure a constant pH value of between 4.8 and 5.3. This "window" has proven to provide the best balance between advantages and disadvantages.

The alcohol isopropanol (IPA) is often used to increase the wetting speed and flowability of the dampening solution. Normally, it represents 8 to 10 percent of the dampening solution. A percentage volume of 3 to 5 percent is recom-



"Smudging": This can be caused by dampening solution that is either soiled or available in insufficient quantities.

mended for alcohol-reduced, and thus lowemission, printing. The IPA content can be determined using, for example, the Alcosmart measuring unit in the CombiStar. It is important to note that less alcohol means higher surface tension and lower viscosity. In other words, for the same dampening system setting, less dampening solution reaches the printing plate than is the case with higher IPA concentrations. This means to compensate for this situation, the speed of the water pan roller must be increased. The extent to which it must be increased can be determined using a special inking unit and dampening solution test form from Heidelberg.

The quality of the dampening solution itself can be tested using a universal testing device. In addition to pH value and temperature, these devices often measure the conductivity, which provides information on impurities, etc. As a rough guide, as soon as the conductivity exceeds the measurement of the "fresh" dampening solution by around 800 microsiemens per centimeter, it is time to think about changing it. If you miss the window, you may notice the plate running together during printing and instinctively increase the water supply. However, this only results in the dampening solution being soiled by residual paper or ink being pushed over the limit at some point. It will then no longer be possible to maintain a stable emulsion in the printing process. The consequences are similar if the temperature of the dampening solution is too high. The temperature should be maintained at between 10 and 14 degrees Celsius.

Peripherals from Heidelberg help to keep track of all these parameters. What's more, the CombiStar and FilterStar are true "guardians of the purity law." They ensure clean dampening solution over long periods with no need to change it. Thanks to their more consistent ink-water balance, they greatly facilitate alcohol-reduced and alcohol-free printing – above all in conjunction with certified dampening solution additives from the Saphira products portfolio from Heidelberg. The FOGRA list contains all suitable Saphira dampening solution additives. ■

Info

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



MEN AT WORK // EPISODE 8 LISE CHRISTIANSEN //

OSLO, NORWAY

Business Woman and Receptionist in One

LISE CHRISTIANSEN (60) has worked for Moltzau Plastryyk for 24 years. The friendly receptionist is the first point of contact for all customers of the Norwegian packaging printer, the heart and soul of the company – and a shareholder. She owns 15 percent of the company, which means she has a significant say in pending investments and strategic business decisions. When she's not at work, she enjoys discovering the world with her husband.

What is your role at Moltzau?

I work at the reception desk, speak to customers and suppliers on the phone and, of course, take care of all the invoices and orders. When business partners are on-site, I make coffee and make sure everyone has something to eat. Sometimes I also sit in on meetings when important decisions are on the agenda. I then discuss plans and strategies with the management team.

So you're the company secretary and you have a hand in shaping the print shop's future? How did that come about?

A few years ago, the owner of Moltzau Plastryyk retired from active business and sold his shares in the print shop. I seized the opportunity and now have a 15 percent share in the business. This means I have a say in the running of things.

How do you start your day?

I get up at 6.30 a.m. and eat some crisp bread and cheese with milk or cold water, not coffee. I only live 10 minutes away, so I leave at 7.50 a.m. and start work at 8 a.m.

What do you do in your spare time?

I go to aerobics two or three times a week. My husband and I also go hiking whenever we can. And, of course, I go skiing in winter.

Can you imagine living anywhere else?

I love Norway – the nature and the people. I could perhaps imagine living in a country where the winters aren't quite as cold as they are here, but I wouldn't like to sever all ties with Norway. My children and grandchildren are here. And Norway is very beautiful in summer.

What is your ultimate dream?

My husband and I love traveling. We have already been hiking in Germany and Austria, and last year we were in China. I was extremely taken by Asia and would very much like to visit Thailand one day. But apart from that, I'm perfectly content.

HN Voices

Antonio Abril García, Barcelona, Spain // Your articles, particularly "Spotlight" and "Tips and Tricks," keep us up to date and always provide interesting information for young people like me who are just starting out on their careers.

Gonzalo Darío Sosa Aguirrezábal, Montevideo, Uruguay // Dear Friends of Heidelberg News. When we read your magazine, we are always impressed by the technical innovations that simplify the workflows for printers and make their lives easier. I would also like to express my admiration for the entrepreneurs who invest in new machinery because they attach great importance to the quality of their work.

Ekevin Kindt, Menomonee Falls, U.S. // It is always nice to hear how print shops are making an important contribution to the marketing success of their customers. Luckily, not all companies limit themselves to e-mail or the Internet.

• Rudolf von Känel-Hurin, Frutigen, Switzerland // Heidelberg News is a high-quality magazine that is full of fascinating articles. I always look forward to reading the latest edition!

Joachim Battermann, Schorndorf, Germany *// Great design work!* However, some articles would benefit from more illustrations and diagrams.

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Marga García Ríos, La Coruña, Spain // A perfect magazine that is perfectly printed – I have the greatest respect for people in our industry who manage to achieve the goals they set themselves. Congratulations!

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© Heidelberger Druckmaschinen AG, Issue 271, 2011 Internet: www.Heidelberg-News.com E-mail: Heidelberg.News@heidelberg.com

Publisher

Heidelberger Druckmaschinen AG Kurfürsten-Anlage 52–60 69115 Heidelberg, Germany www.heidelberg.com Adriana Nuneva, Senior Vice President – Global Marketing & Communications, Print Media Academy, Education & Consulting

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This issue's photographers Daniel Lukac (cover, 14–23), Izdeyar Setna (6–13), Heidelberger

Druckmaschinen AG (24–27, 28–33, 36–39), Rainer Diehl (Fax-Feedback), Sabine Kress (48–52, 54)

Printing Printed in Germany Print Media Center, Heidelberg

Production

Printing plates: Suprasetter Printing: Speedmaster Finishing: Stahlfolder Consumables: Saphira Fonts: Heidelberg Gothic, Heidelberg Antiqua

Circulation 100,000 copies

Area of circulation

Languages German, English, French, Spanish

Cover photo Paolo Perrin, CEO, Tipografia Valdostana S.p.A.

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00.992.4243/01 en



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