

Heidelberg

News

The customer magazine
Since 1930 • Issue 264 • 2008

FOCUSED

ENERGY

The packaging printer Parksons Packaging is setting its sights on the world market

SEDUCTIVE PRINTING

Why print is so irresistibly appealing: Experts talk

TECHNOLOGY FOR NEW IDEAS

Bernhard Schreier on the HEI Lights at drupa 2008



HEIDELBERG



Prospects for Packaging Printing

drupa 2008 is breaking all records: Over 1,800 exhibitors will be presenting themselves this year on an exhibition space the size of 40 soccer fields. The most recent edition of the trade fair is thus the largest in its over 50 year history. This shows that our branch is still in a dynamic and even roaring development phase – which makes the question of which megatrends are on the horizon at this year's leading fair even more interesting.

At Heidelberg, one of our main strategic focuses is packaging printing, because according to many analyses and studies, lasting and long-term growth can be expected here. By 2020, the associated consumption of paper and cardboard, for example, is expected to increase by more than 150 percent in Russia, by 100 percent in China and by 17.5 percent in Germany – per person! To be able to exhaust such potential, print shops in industrial countries need to streamline their processes as much as possible and simultaneously produce especially high quality – meaning finished – print products. Packaging printers in emerging markets are also well-advised to meet their customers' rising demands with modern printing technology.

You'll learn which solutions Heidelberg has ready and how this is helping some of our customers run their businesses successfully in this issue of the Heidelberg News. I hope you once again find something of interest to you!

Yours sincerely,

Bernhard Schreier
Chairman
Heidelberger Druckmaschinen AG

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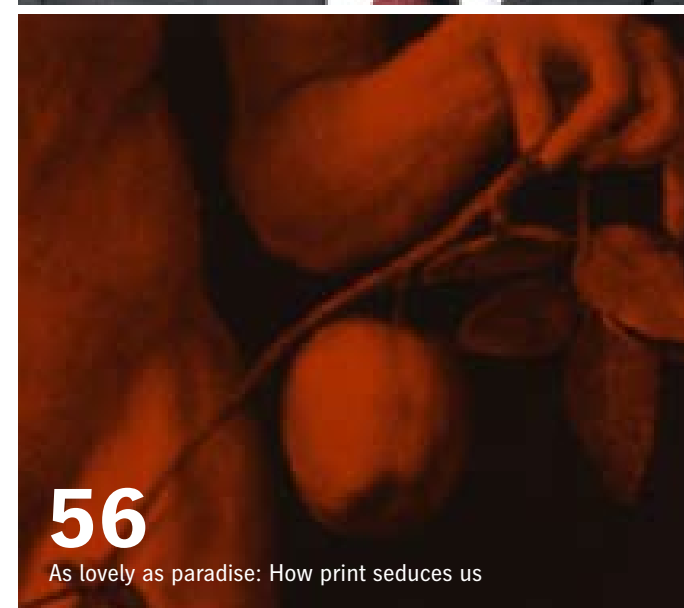
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Testing the Limits of Time

Too much information, unreadable product descriptions, simply unopenable: Packaging can quickly spoil your mood. Especially when you're not the youngest anymore. Every day, senior citizens fail at some packaging's complicated opening mechanisms that can only be cracked with scissors, pliers or hot water. More and more businesses are discovering the enormous potential in the quickly growing target audience 60+ and are becoming active. Nevertheless, the fact of the matter is that most packaging still fails pitifully in terms of senior citizen friendliness. The following numbers and facts speak for themselves.

60%

FIND IT DIFFICULT TO FIND THE OPENING THREAD ON A FOIL WRAPPING.

90%

HAVE TROUBLE OPENING PACKAGING.

THE 100 WORLDWIDE LARGEST PAPER AND PACKAGING COMPANIES ACHIEVED A SALES VOLUME OF

354.6 BN. US DOLLARS

(241.5 BN. EUROS) IN 2006: 5% MORE THAN IN 2005.

200%

HIGHER: THE CREDIBILITY OF PACKAGING COMPARED TO THE AVERAGE OF OTHER ADVERTISING MEDIUMS.

“SENIORS

WILL BE DETERMINING MANY MARKET PATTERNS IN A FEW YEARS. THOSE WHO DON'T PREPARE THEMSELVES NOW WILL LOSE.”

OLIVER W. SCHWARZMANN, BLEY UND SCHWARZMANN AG

- TYPICAL PROBLEM PACKAGING:
- SHRINK-WRAPPED PRODUCTS (70%)
 - MILK CARTONS (49%)
 - COFFEE (30%)
 - CANS (30%)
 - BOTTLED DRINKS (25%)
 - JAM JARS (25%)
 - CLEANING SUPPLIES (20%)
 - PHARMACEUTICALS (15%)

151.8 BN.

US DOLLARS (100 BN. EUROS) PER YEAR: THE BUYING POWER OF THE 60+ GENERATION IN GERMANY ALONE.

30%

AVOID PRODUCTS THAT ARE DIFFICULT TO OPEN.

FAITHFUL CUSTOMERS FOR MANY YEARS: MEN WHO ARE 60 YEARS OLD TODAY HAVE AN AVERAGE LIFE EXPECTANCY OF 20 YEARS. FOR WOMEN IT'S 24 YEARS.

2050

IS THE YEAR WHEN THERE WILL BE MORE THAN DOUBLE AS MANY OLDER PEOPLE THAN YOUNG PEOPLE IN MANY TRADITIONAL INDUSTRIAL COUNTRIES.

93%

OF YOUNGER CUSTOMERS FIND A PACKAGING'S ORIGINALITY IMPORTANT BUT ONLY 24% OF SENIORS.

24%

76%

FIND EASILY READABLE INFORMATION TO BE PARTICULARLY IMPORTANT.

30 TO 40%

OF ORIGINAL MUSCLE STRENGTH IS LOST BY THE AGE OF 65. LARGE SCREW CAPS AND OTHER OPENING AIDS MAKE LIFE EASIER.

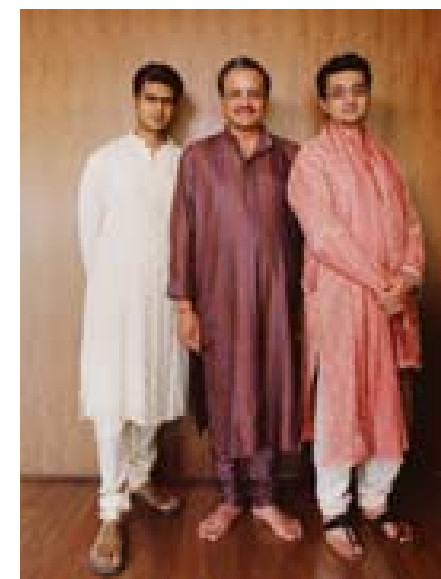
63%

WANT PACKAGING THAT IS EASY TO IDENTIFY.



Sources: German Institute for Economic Research (DIW), Federal Statistical Office, ProCarton, Institut für Demoskopie Allensbach, Meyer-Hentschel Institute

Mumbai Masala



PARKSONS PACKAGING LTD, INDIA // Mumbai – the pulsing metropolis of 13 million attracts investors, salaried employees, day laborers, stars and starlets alike as if under the spell of the magical words “open sesame.” Those who take their chances in the former Bombay can win big. Parksons Packaging did. Around 12 years ago, the print shop decided to focus entirely on packaging printing, at that time still an absolute niche segment. Now it’s setting its sights on the world market.



CEO Ramesh Kejriwal (57) is proud of his sons, Siddharth (34, left) and Chaitanya (28, right), who work with him.

Rush hour. Right in the thick of the evening traffic chaos. The nervous chorus of horns from countless cars and mopeds mixes with those of trucks and double-decker buses to form an unceasing vibrato. Nothing in Mumbai moves silently. Every morning the exuberant megacity draws around 5 million commuters and in the evening it spits them back out again. There are almost always four cars driving next to each other on the three-lane streets. Every inch of asphalt counts; even the smallest space gets used, even if that means that other cars have to swerve onto the sidewalks. Nobody takes offense at this. Why should they? It wouldn't change anything. The swarms of people weave through the city like an endlessly long snake. The breakneck economic growth has transformed Mumbai into a masala – into an incessantly sizzling, gigantic stew, made up of all classes and lifestyles, a mix of more than 200 languages and dialects as well as countless religious persuasions. Despite the spartan way of life for large sections of the population, a spirit of optimism prevails which affects everyone in the pulsing megacity that never sleeps. Production, construction and consumption take place round the clock.

Booming Packaging Market. It's shortly after 6 p.m. Young people and families with many children, all packed with plastic bags, stroll through the air-conditioned halls of the shopping center Phoenix Mall. At the "food bazaar" there, people are waiting in line at the cash registers. Here there is almost only packaged food anymore. Also in other fast food restaurants, the meals wrapped in paper or plastic are piling up.

McDonald's, Pizza Hut, Adidas and L'Oréal – the influx of global companies to Mumbai is unflagging. Every new opening pushes the lifestyle more in the direction of the West. And that's inseparably

connected to packaging. "The higher the standard of living, the more important the packaging is. Because of the large variety of similar products, packaging plays an increasingly decisive role in sales. "Up until 10 years ago, almost nothing was packaged in India. With the economic growth, the percentage of packaged goods multiplied," explains Ramesh. The 57 year old is CEO of Parksons Packaging. The business, with headquarters not far from the "Phoenix Mall," entered the packaging printing industry in 1996 and is now riding on a wave of success.

Parksons Packaging's success is no coincidence. Rather, it is the result of meticulous market analysis and a well thought-out business strategy. Founded in 1957, the print shop originally produced playing cards and then mainly commercial products. In the middle of the 1990s, Ramesh and his eldest son, Siddharth (34), seized the chance and steered the business towards packaging printing. They hired a worldwide leading consulting agency which interviewed selected Fortune 100 companies on current trends and the growth potential of the Indian packaging printing market. Step by step, the print shop expanded its knowledge – and proceeded systematically. "The first two years we only printed short runs in order to get a feel for the return on investment. The change from commercial items to packaging meant massive investments in terms of equipment. In addition,

"THE FIRST TWO YEARS WE PRINTED SHORT RUNS IN ORDER TO GET A FEEL FOR THE RETURN ON INVESTMENT."

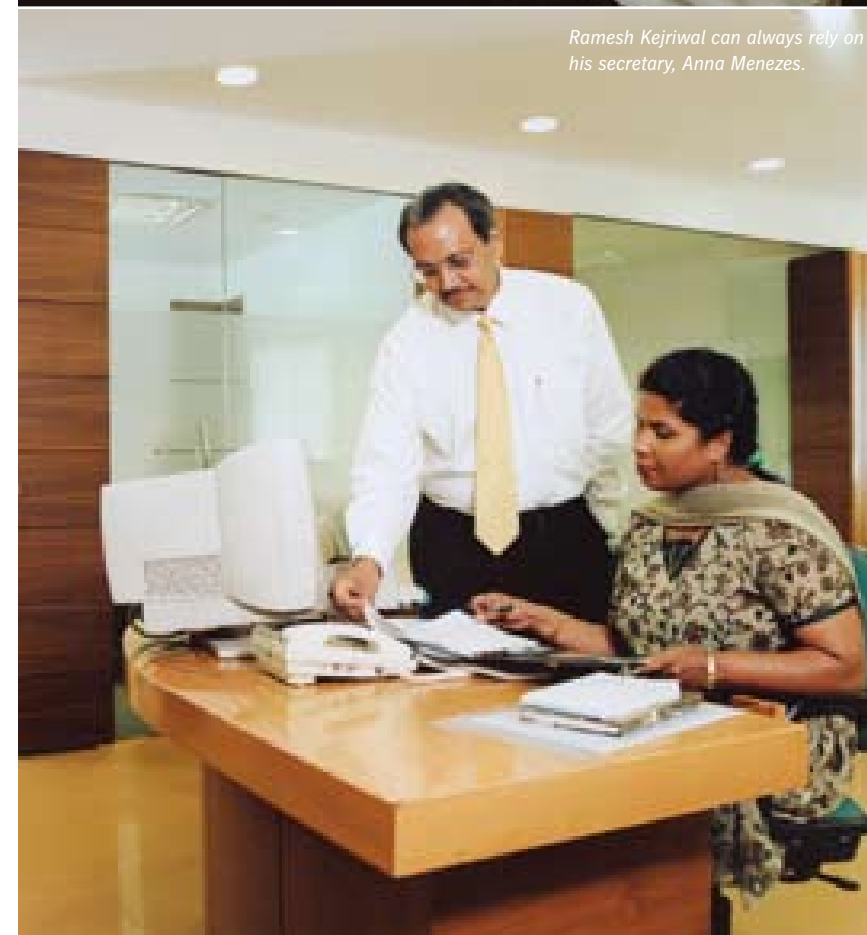
Siddharth Kejriwal, Parksons Packaging

we also had to reorganize processes and suppliers," reports Siddharth. He studied business in the United States and entered his father's company in 1994, where he is the chief operating officer (COO) responsible for the daily operations including marketing and production. In order to check the high investment volume and absorb risks, Parksons Packaging has in the meantime pulled a private equity partner on board which has a minority share in the company.

Advancement to the Major Leagues. When it entered the packaging market, the print shop targeted primarily manufacturers of consumer goods as potential customers. This is because the market analysis had found that multinationals, like Unilever, for example, weren't satisfied with the color consistency and quality of locally printed packaging for fast moving consumer goods, "We spotted our chance in this shortcoming. We went to some of the leading brand owners and proved we could achieve the desired color quality at all times. It was of key importance to the product being marketed, for example with skin care products," says Ramesh, who passed through all of the departments in the company after his degree in economics from Bombay University. ▶



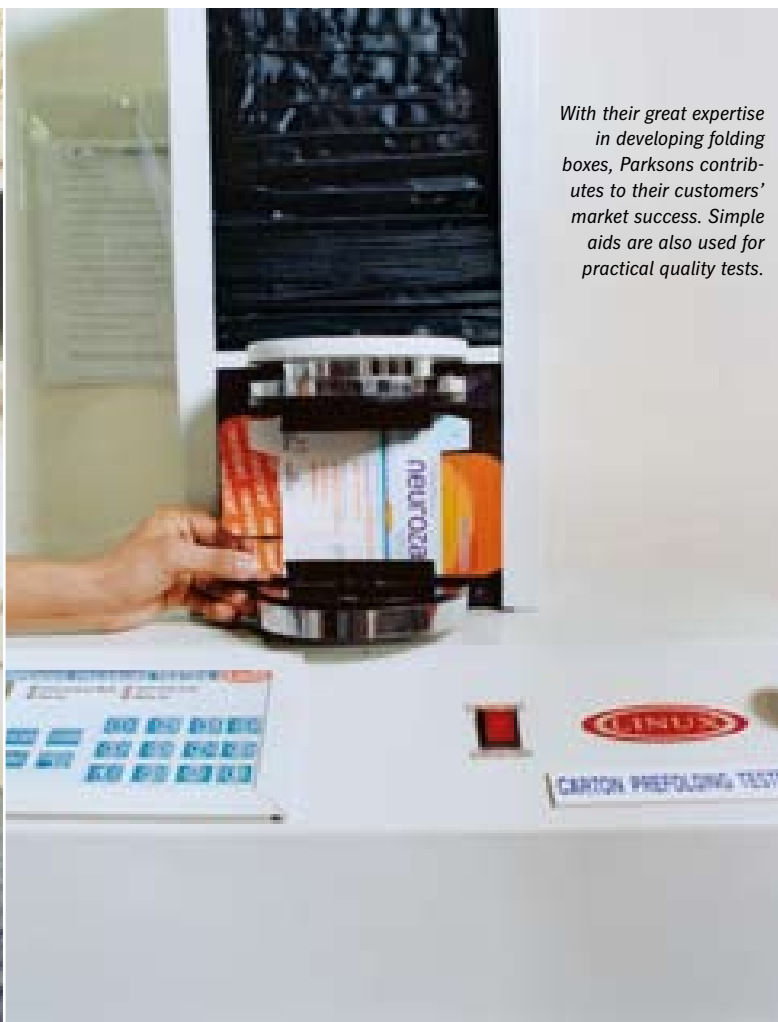
Vice President of Operations R. Srikanth (front) expects an increasing percentage of UV printing – no problem for his experienced team of printers.



Ramesh Kejriwal can always rely on his secretary, Anna Menezes.



The color quality is ensured with Prinect Prepress Interface and Prinect Color Management.



With their great expertise in developing folding boxes, Parksons contributes to their customers' market success. Simple aids are also used for practical quality tests.



► “Thanks to packaging printing, we are now playing in a different league. Our customers include top multinationals like Unilever, Cadbury, P&G, Nestle, Kelloggs and McDonald’s. With some of the customers, we have even earned the status of preferred global service provider,” reports Siddharth proudly during dinner at the Kejriwal family’s home. The business produces packaging not only for the Indian market, but also for large multinationals that package the end product in India and ship them to their global sites. In addition to this “indirect export,” Parksons Packaging also delivers its print products abroad itself as well – this makes up a good 20 percent of their printing volume. These mostly go to Europe, Africa and the United States.

“THANKS TO PACKAGING PRINTING, WE’RE NOW PLAYING IN A DIFFERENT LEAGUE. OUR CUSTOMERS INCLUDE TOP MULTINATIONALS.”

Siddharth Kejriwal, Parksons Packaging

“Our image isn’t defined by price but by quality. Customers want to achieve a brand appearance indistinguishable from that in Amsterdam or New York. They place great value on this,” says Siddharth. The customers’ globalized world is reflected in the Kejriwal family’s lifestyle as well. The living space in the noble South Mumbai district has a cosmopolitan feel. Ramesh, his wife, and his mother live here, as well as both sons with their wives and children. The design’s clear cubic shapes are more reminiscent of Zen than the traditional Indian style. This creates a relaxed atmosphere where Ramesh likes to read as way of tuning out from hectic Mumbai.

Success Factor: Color Quality. The next morning begins with wild honking, too, this time surrounding the Parksons headquarters in the Parel city district. Administration, marketing, the graphic department and prepress are located there – around 80 of the 400 employees in total. The print shop is completely networked using a digital workflow, both within the headquarters as well as with both the production locations in Daman and Pune.

Ramesh doesn’t shy away from software – as a matter of fact, he uses it extensively. “The technological expertise I acquired at the Printing College and while working on the print shop floor still helps me today to understand technological innovations faster and apply them profitably – especially in combination with my business background.” He therefore equipped the printing presses with Prinect Prepress Interface and Prinect Color Management. In this way, prepress data, like color zones, is forwarded on to the printing presses. Prinect Color Management then sees to the exact nuances of color during printing. In addition, the business uses the business management software SAP, in accounting and operations management. “Our customers demand ►



Booming India

Air-conditioned luxury cars, impressive shopping centers, colorful movie theater facades, modern office complexes all between, ox carts, warped shacks, begging monks and ownerless dogs. Nowhere else in the world do such strongly pronounced opposites confront each other as in India. And with the exception of China, there is hardly another region in the world which is changing as quickly. The entire subcontinent is in motion. And it seems everyone is searching for the fastest way up.

The new India in numbers

- Magnet for investors.** 125 Fortune 500 companies operate research and development centers throughout India.
- Intelligent resources.** More than 3 million students completed a university degree last year. By 2010, it should be double that.
- Consumption-oriented middle class.** Roughly 300 million people have an annual income of more than 4,511 U.S. dollars (3,000 euros) and make up India’s middle class. They prefer to spend their free time in shopping malls. In 2001 there were only three of these consumer temples. Today India has 350.
- Always reachable.** Around 80 million Indians own a cell phone. An additional 2.5 million cell phone contracts are added to that each month.
- Young population.** About 5 percent are older than 65. A third is under 15. That makes seven young people to one older person.
- On the move.** Between 1947 and 1997, 6.8 miles (11 km) of highway were added yearly, today it’s 6.8 miles (11 km) per day. Congestion will rise: Only eight of 1,000 Indians have their own car.
- Unique media landscape.** Roughly 55,000 newspapers and magazines are published in India – more than in any other country in the world.

► the highest quality and reliable service. We can't afford to have redundancy and non-transparent processes. We want to score points with adherence to deadlines, solutions with added value and innovations," emphasizes Kejriwal senior.

Expertise Contributes to Market Success. For Ramesh, offering an added value means not only reacting quickly to customers' wishes, but fulfilling expectations in advance by listening carefully when talking with the people in marketing, research and development, as well as those in production on the customers' end. "We are involved in the development process for the folding boxes right from the

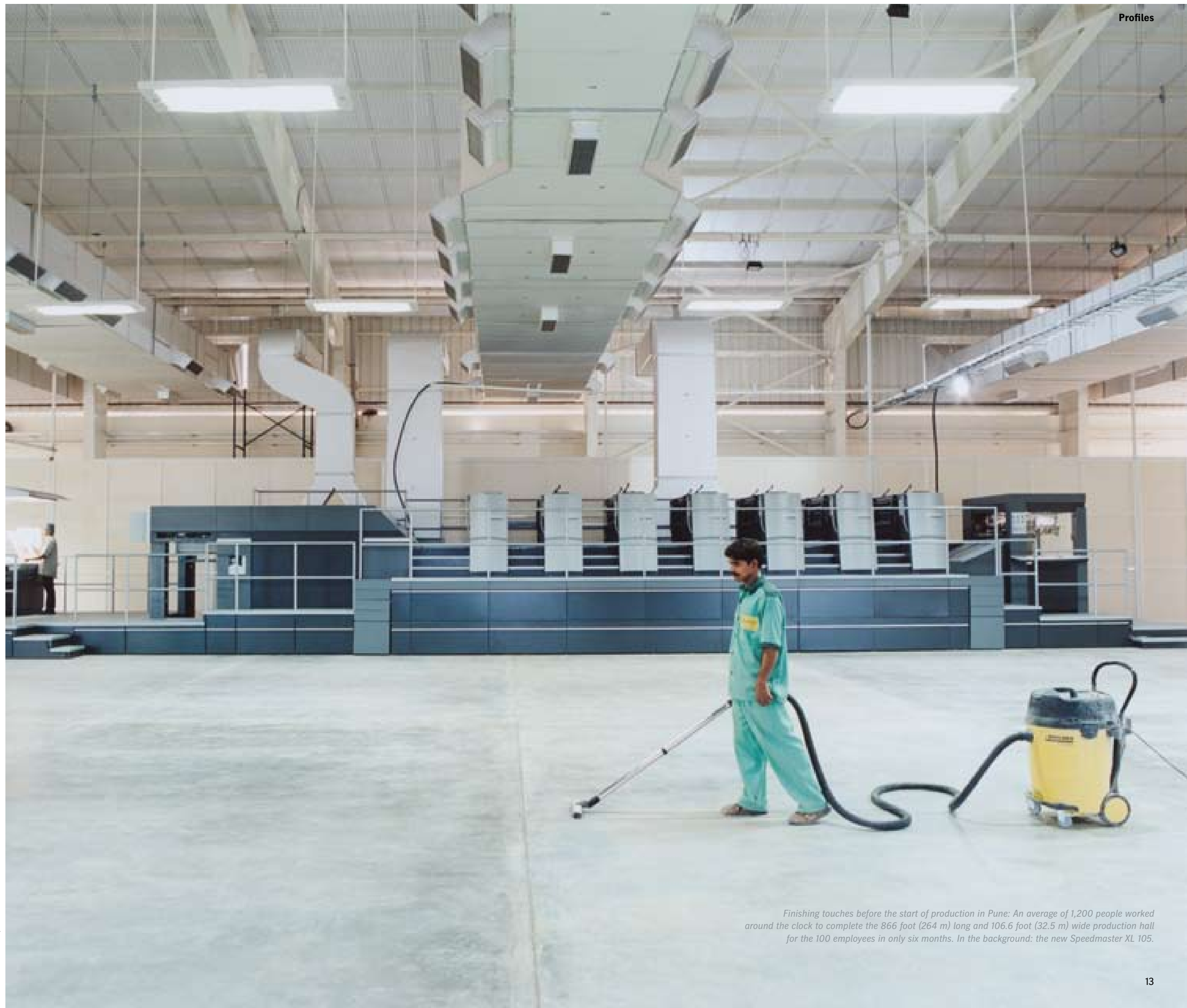
"OUR CUSTOMERS DEMAND THE HIGHEST QUALITY AND RELIABLE SERVICE. WE CAN'T AFFORD TO HAVE REDUNDANCY AND INTRANSPARENT PROCESSES."

Ramesh Kejriwal, CEO Parksons Packaging

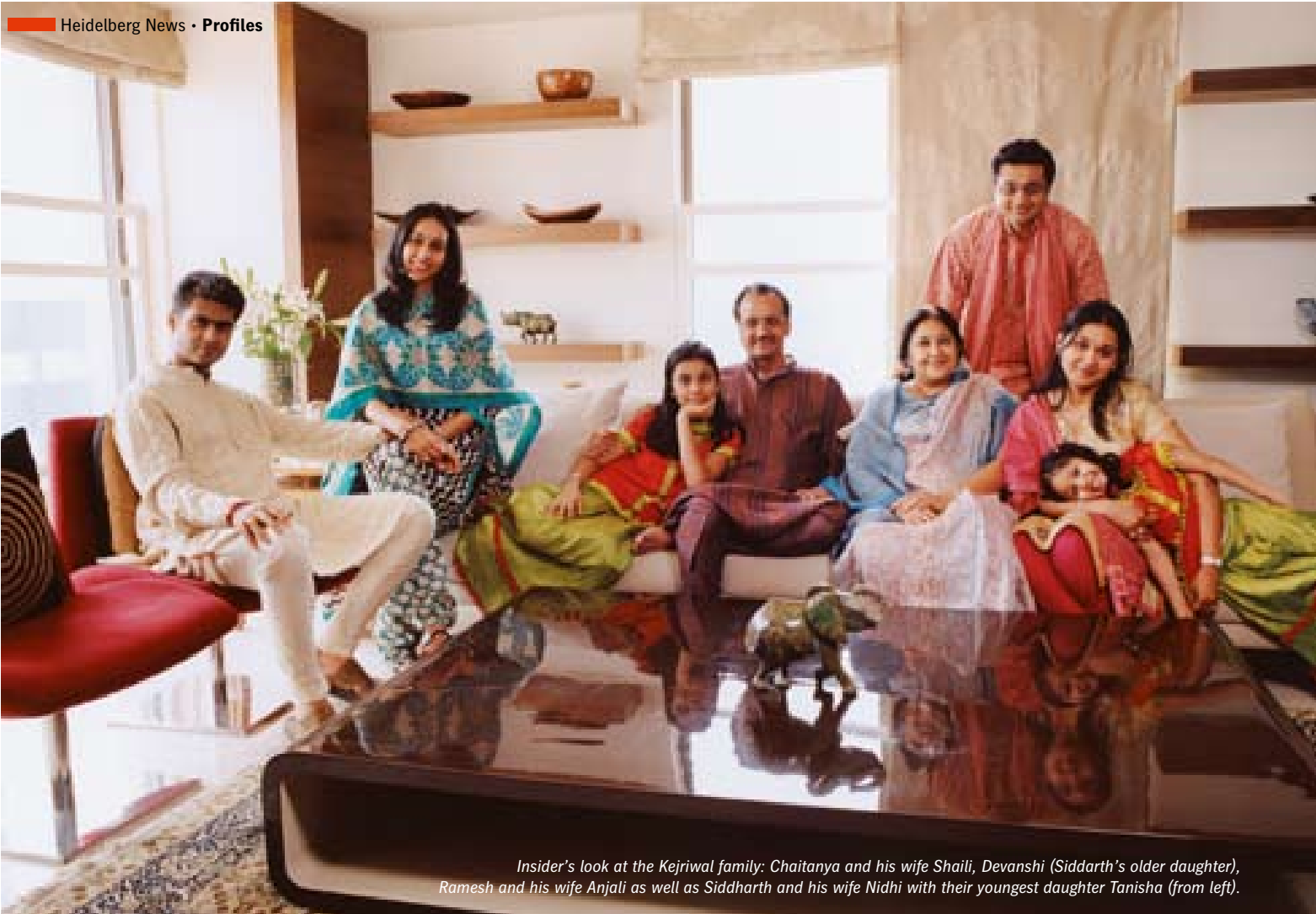
start - in their shape and functionality, in their color, their material and coating. After all, a box shouldn't just look good, it has to be easy to open and close for the end customer, as well as simple to fill for the manufacturer. That's why we don't just deliver the desired product, we also even contribute to the market success with our expertise," explains Siddharth. And this success is already laid out in the first drafts worked out by the team of eight designers with the help of CAD software. Most of them are top graduates of the Indian Packaging Institute in Mumbai. Around 15 of their colleagues in pre-press then take over the imaging and impositioning of the folding boxes with screen rulings of up to 175 lpi. Printing and other production activities take place in Pune and in Daman, roughly 124 miles (200 km) to the north.

The next day it's off to the production location in Daman. This is both the name of the city, with roughly 35,000 inhabitants, as well as the district, which, together with Goa, made up a part of the Portuguese colony in the 16th century. The route first heads down Marine Drive along the Arabian Sea. The eight-lane city highway is also commonly known as "Queen's Necklace" by locals. They call it this because the street nestles itself along the sea in a soft curve, and at night the streetlights sparkle like gemstones on the Queen's glimmering necklace.

From Marine Drive is a view over the Back Bay and of the Malabar Hills skyline, the most expensive part of Mumbai and the home of many economic giants. In the center, however, the colonial construction with its colorful mix of Victorian, neo-Gothic and Indo-Saracenic style with the typical towers, domes, rose windows and oriel windows seem like sets that were simply left at the end of a ►



Finishing touches before the start of production in Pune: An average of 1,200 people worked around the clock to complete the 866 foot (264 m) long and 106.6 foot (32.5 m) wide production hall for the 100 employees in only six months. In the background: the new Speedmaster XL 105.



Insider's look at the Kejriwal family: Chaitanya and his wife Shaili, Devanshi (Siddharth's older daughter), Ramesh and his wife Anjali as well as Siddharth and his wife Nidhi with their youngest daughter Tanisha (from left).

► movie shoot. They often seem foreign amidst all the monotone concrete apartment buildings, modern glass buildings, makeshift street stands and shacks made of metal sheeting. After three and a half hours, we've reached our destination – Daman.

1 Billion Folding Boxes per Year. Since December of 2001, Parksons Packaging has been producing more than a billion folding boxes each year in around-the-clock, six days a week shifts. A team of skilled printers operate the printing presses – two Speedmaster CD 102-6s with coating unit and a Speedmaster CD 102-6 UV. “We only acquired the UV press in 2006. It's a hybrid press. That gives us the necessary flexibility in printing stock. Currently, we print around 5 to 10 percent of our boxes on plastic in UV offset. The rest are from paperboard,” explains Srikanth who is vice president in charge of operations at Parksons. Srikanth is expecting an increasing percentage of UV printing, since folding boxes are growing more and more elaborate. Another reason is because non-absorbent materials, like foils or metalized paperboard, are being used.

Srikanth values Heidelberg because of its high quality and extremely reliable technology as well as comprehensive service. “For a long time, Heidelberg was the only company for Indian print shops which offered maintenance and service here at all. On top of that is

the advantage of Remote Service, which allows us to solve problems quickly over the telephone. That's a significant plus point which enables us to continue adhering to deadlines and meeting our high standards of quality.”

The printed sheets are then further processed by the 80 employees in finishing. The postpress specialists have a good mastery of the whole repertoire – for example, die-cutting, embossing with and without hot foil, window patching as well as forming in very diverse formats. Around 35 to 40 orders are processed here per day. The average run length is around 15,000 sheets. Standardized processes, regular inspections and modern information technology help Parksons achieve a consistently high level of quality throughout all of production. The packaging specialists are also one of the few certified print shops in India.

Laboratory-like Print Shop. Because of hygiene regulations, hairnets and white coats are also required when touring the print shop. This laboratory feeling is further strengthened by the facility's meticulous cleanliness, the accurately labeled cabinets and drawers, as well as certain equipment. The print shop has its own “clean room” with a spectrophotometer, for example, which it uses to analyze the composition of inks from product samples in order to the mix these

themselves. “Mixing the inks ourselves saves around two days time in comparison with normal delivery times from our ink providers. That's a lot with urgent orders,” Srikanth says.

Another useful device is the so-called “prototype maker,” a machine which gets fed 3D data from the Parksons headquarters in Mumbai and uses this to make original prototypes of folding boxes. The printed sheets are even folded and perforated already. “Our customers can hold the prototype in their hands and test it. In this way, we ensure that the design meets their needs, also in terms of handling and profitability,” explains Srikanth. Once the customer approves the prototype, Parksons starts a pre-series with runs of sample cartons in order to carry out extensive quality tests. For example,

“THE ENTIRE LOCATION HAS THE HIGHEST LEVEL OF ERGONOMICS. WE WANT IT TO BE FUN FOR OUR EMPLOYEES TO WORK HERE.”

Mangesh Bagade, General Manager of Operations

a product's abrasion resistance is tested. There are also tests to see how the boxes react to extreme temperatures and how much pressure is needed from the customer's machines to fold the boxes. In another room, employees work on braille-embossed printing intended for use on pharmaceutical packaging initially. Because of all of these activities, the space in Daman is fully utilized. “In five years, we've already expanded four times to our current 107,639 square feet (10,000 sq. m.). So further growth will be accommodated by our new location in Pune, which is also close to some of our customers,” explains Srikanth.

Morning the next day, and the Mumbai-Pune expressway, India's first highway, brings back the joy of driving in a car. All motorists and cyclists drive in a very disciplined manner. There are no decrepit trucks or trailers pulled by tractors holding up traffic. The three-lane street gently winds its way up the Sahyadri ridge. Between the rich green trees, light from the ochre colored weekend homes belonging to wealthy Mumbaiikars shines through. Even on the highway's median strip, a cow here and there searches for something to eat.

Top-notch Print Shop. After a two hour drive, the trip ends in Pune. With a lot of investment and only six months, Parksons Packaging forged a top-notch print shop for production. An average of 1,200 people worked around the clock to finish the 866 foot (264 m) long and 107 foot (32.5 m) wide production hall on time by the end of April 2007 – including access road, guest house, cafeteria and a garden for the total of 100 employees. “The entire location is

equipped with the highest level of ergonomics. We want it to be fun for our employees to work here,” explains the general manager of operations, Mangesh Bagade.

Currently, two production lines cross the halls. The arrangement of the lines corresponds to the workflow: first CtP, then printing and finally postpress. All employees have eye contact with one another. At the heart of the production line is a six-color Speedmaster XL 105 with coating unit and extended delivery as well as a Speedmaster CD 74-Duo-LY-6-LX. The Speedmaster CD 74 Duo produces labels, for example for the beer industry. “The Duopress pays off because of its versatility and efficiency. We use it to process the widest range of substrates like metallic and other foils, paper and cardboard. In addition, we can apply UV, hybrid, Iriodin and other special effects in one pass,” explains Bagade.

Active Environmental Protection. The general manager of operations estimates paper consumption to be around 48,000 tons per year after full scalability is achieved. Energy and water consumption are also enormous. In order to conserve resources, Parksons Packaging therefore took comprehensive environmental protection measures. The waste water from production and the cafeteria gets recycled, for example. The company put almost 1 million rupees (roughly 26,600 U.S. dollars or 18,000 euros) into a recycling plant. Every day, this is used to purify half of process water, around 2,642 gallons (10,000 L) which then gets used again. In addition, special energy-saving lights reduce power consumption by a third in comparison to conventional lamps. Only the air-conditioner is saved from ingenious methods to conserve electricity, “We really hardly use our cooling system in postpress,” Bagade determines.

After so much environmental consciousness witnessed first-hand, spirits are high on the expressway back to Mumbai. The metropolis' noise and fumes had almost been forgotten. Almost. Because the last 22 miles (35 km) take over three hours. It's rush hour again in Mumbai, and all forms of life have crowded to the streets to provide the drivers who inch along with a steady stream of entertainment. Only humor helps in such a situation. We found it on a sign painted on the back of a truck: “Please honk!” ■

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Master of Details

CARL EDELMANN GMBH & CO. KG, GERMANY //

Technical perfection and an almost overwhelming desire to discover aesthetic virgin soil. The Edelmann Group has been living this passion with incredible success for centuries. Alongside the pharmaceutical industry, manufacturers of lifestyle, cosmetic and luxury goods place their trust in the finishing skills of the Swabian family business. It ranks among the leading packaging manufacturers in Europe.



Manager Dierk Schröder had many an occasion to dress up recently: Edelmann has received more than 60 awards in the last three decades.

Complex play of colors. The glowing color transitions from amber to gold were created in multicolor offset printing on metalized Invercote. Edelmann achieved the circumferential line using impressing. The logo was made with embossing.



Paradise Street 20 – even the address promises a piece of heaven on earth. The Edelmann Group has been located here for a good 50 years. While a second look at the facade of the company's headquarters reveals that time doesn't pass without leaving its mark, even in paradise in Heidenheim, a new "printing garden of Eden" is already in sight. If everything goes according to plan, employees from administration and prepress will move to a new state-of-the-art headquarters in summer. The building, oversized folding boxes made from concrete, steel and glass, will even symbolize the foundation of Edelmann's success.

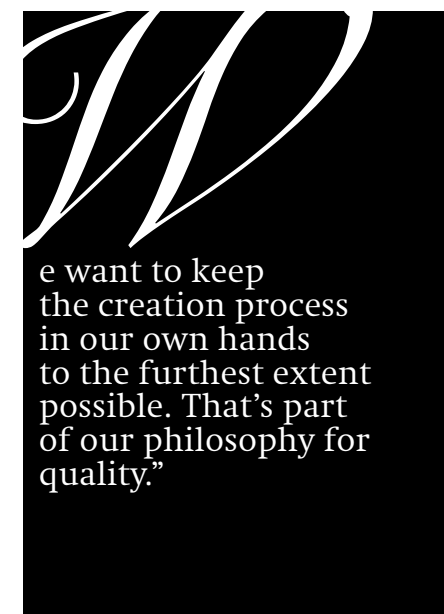
"The building cost over 9 million US dollar (6 m. euros)," manager Dierk Schröder confides. It can be thought of as a kind of advanced birthday present for Edelmann, because the business will celebrate its 100th anniversary in 2013. Nevertheless, Edelmann is already considered one of the leading, most quality-oriented packaging printers in Europe and therefore has every reason to celebrate. Today, customers of the family business, which began as a small commercial print shop, stem from the international pharmaceutical as well as cosmetic and perfume industries, two branches which, for very different reasons, demand the most from packaging in terms of design, printing and manufacture.

Swabian Perfectionism. It's probably no accident that Edelmann – roughly an hour by car from Stuttgart – was started in the middle of Swabia. People always say Swabians want to do everything particularly well and accurately. And both coincide exactly with the unusually high expectations of Edelmann customers. The pharmaceutical industry watches like hawks to make sure their products are packaged as fraud-resistently as possible. In addition, the manufacture and printing of such packaging is subject to particular hygienic conditions. As the market leader in this sensitive area, Edelmann is setting standards across the board. It's therefore no coincidence that the Swabians in the committee of the German Institute for Standardization (DIN) are leading the push for the introduction of Braille embossed printing on pharmaceutical packaging. Fraud resistance is also an increasingly important topic with perfumes, cosmetics and hair care products. Additionally, however, this branch also places the utmost value on exclusive and unusual packaging: on special colors and printing techniques – coatings, foil lamination, embossing and special effects. This is because it's not the scent alone that decides whether the product is bought or not. The product's name, the bottle and, last but

not least, the packaging itself plays a part, too. Fast-moving consumer behavior is therefore a constant challenge for manufacturers and designers, as well as for printers and finishers.

Carl Edelmann GmbH & Co. KG, as the group of companies is officially called, has been meeting these demands with resounding success for centuries. Customers in the pharmaceutical branch include global players such as Bayer, Sanofi-Aventis, Novartis, Pfizer and Roche. In the cosmetic sector, Edelmann packages perfumes from Boss, Calvin Klein, Chanel, Cacharel, Gucci and Escada as well as hair dyes from L'Oréal. In terms of candy and beverage packaging – more of a niche business for the print shop – Coca-Cola and Nestlé have also relied on the Swabian quality.

One-Stop Fulfillment. A good half dozen specialists for packaging design work at the old location on Paradise Street. "Nine of 10 customers come to us with their own packaging ideas," reports Helmut Sieber, director of packaging development for the premium area,



primarily cosmetics and scents. "Our job is then the technical realization of these ideas." Already in prepress, 3-D data define exactly where the printed sheet should be cut, creased, perforated or glued in postpress. "There are numerous details which need to be taken into consideration, and you can get them exactly right, but also exactly wrong," emphasizes Helmut. In Heidenheim, they obviously want to get it 100 percent right – and that right from the start.

The results of the work Helmut and colleagues do on the computer simultaneously lay the groundwork for which tools will be needed in postpress. This, too, remains under Edelmann's direction. "We want to keep the creation process in our own hands to the furthest extent possible," explains Dierk, adding, "That's part of our philosophy for quality." In this spirit, Dierk therefore relies

on tools like the color measurement system Prinect Image Control, explaining that Prinect Image Control allows you to react very quickly to even the smallest deviation from the quality standards during the production process.

To illustrate his customers' high demands, Dierk gave the example of hair dyes for which packaging requires the most exact nuances in color. This is because large manufacturers like L'Oréal don't just have one blond to choose from, but rather half a dozen. Customers must be able to clearly differentiate light blond from light pearl blond on the packaging.

Quality Across the Board. The extremely high value Edelmann assigns to quality carries across into other areas as well. To ensure an exact color rendering, the business maintains its own ink mixing facility directly next to the pressroom. Michael Schabel and his

► coworkers also analyze metameric effects – in other words, they explore how the colors on individual packaging appears under different light sources. After all, branded companies have to make sure that the soft rosé on a new perfume packaging which looks excellent in natural light doesn't all of a sudden mutate into an uneventful Miss Piggy kind of pink. Those at Edelmann don't leave anything to chance with the printing stock either. They test the physical characteristics of the cardboard used for packaging in their own laboratory. "There are around 80 cardboard suppliers with 1,000 different grades of cardboard," explains team leader Peter Schmid. Since Edelmann isn't just responsible for expertly applying ink and finishing materials, but rather also for the packaging's surface, they do spot checks on this, too.

The laboratory also possesses a gas chromatograph which is primarily used on packaging for food and cigarettes. "The packaging obviously shouldn't influence the taste or smell of its contents," emphasizes Peter. Considering the high expectations for quality the print shop and its customers have, it's no surprise that Edelmann values having such equipment. In this way, they also gather profound expertise on cardboard that they can use as a clear advantage against the competition. At Edelmann, it's almost already taken for granted that the print shop is certified as an "accredited quality operation in offset printing" according to ISO 12647. The group even demands quality when it comes to the handling of packaging. Edelmann therefore developed a range of packaging solutions called "CEasy" that are

tailored to the specific needs of senior citizens and are easy to open, for example. The business has had this packaging tested for its suitability for senior citizens by the renowned Meyer-Hentschel Institute, which is considered to be the founder of marketing for seniors in Europe. (More in our interview on pages 62–66.)

Impressive Machinery. At the heart of their philosophy of quality is the huge pressroom, where an impressive number of Heidelberg machines are installed. "At the Heidenheim location we print solely with Heidelberg," explains Dierk. The machines that belong to the world market leader in offset printing also dominate at the Weilheim location as well throughout the entire group. "In line with our focus on increasingly higher quality products, we've invested consistently in the best technology," emphasizes Dierk, adding "And in the realm of printing, that clearly means Heidelberg for us." There has been a close connection between the businesses for centuries, since their philosophies and strengths in terms of quality and creativity complement each other ideally.

The hallway in a gallery on the edge of the pressroom lends a view over an impressive machine park. Almost 70 Speedmaster printing units are installed in Heidenheim right now. Alongside various Speedmaster CD 74 presses for pharmaceutical packaging are also Speedmaster CD 102s as well as seven and eight-color Speedmaster XL 105s for premium packaging with coating units, and one with additional UV equipment. A Speedmaster XL 105 with the cold foil ►

Rounding out the Portfolio

"Growth through acquisition" has been the name of the strategy both before and after the turn of the millennium at the family business founded in 1913. The Heidenheim business initially acquired the company G. Braun Druck + Medien in Bitterfeld near Halle, Germany, in 1997. Under the name of Braun Pharmadruck Bitterfeld, the business was systematically restructured as specialists for pharmaceutical packaging. In 2003 Wesche Pharmaverpackung GmbH in Norderstedt near Hamburg was purchased. The company Artur Theis in Wuppertal near Co-

logne has been the newest member of the German Edelmann Group for a year and serves almost exclusively pharmaceutical customers in western Germany. The newest acquisition takes over a very special role as forerunner: The Beijing Theis Pharmaceutical Packaging & Printing Ltd., a joint venture with a Chinese printing business, also manufacturers folding boxes solely for the local pharmaceutical industry in Peking. As is the case with other packaging types, the demand for high quality pharmaceutical packaging is growing rapidly in the new economic wonderland called China. Edelmann also went

shopping abroad in Europe after the turn of the millennium. In 2001, the Société Parisienne d'Impression et de Cartonnage (SPIC), specializing in high quality packaging primarily for cosmetics and perfumes, but also for chocolate and spirits, was taken over. For three years, the business' portfolio has been rounded out by the Polish folding box manufacturer El-druk Zakład Poligraficzny Sp. z o.o., with headquarters in Warsaw. It is also active in the pharmaceutical and cosmetics industries. The business ranks among the leading in the branch in Poland.



Finely coated. The cardboard laminated in silver foil lends the black currant colored folding box a matt shimmer. The front is partially finished with UV gloss and matt coating. The unusual appearance is strengthened with a diagonally embossed line simulating a folding crease.

Perfect 3D simulation. On all six sides, the intensity of the green and violet decreases towards the middle. In coordination with a laminated hologram foil, this creates the impression of a seductively shimmering three-dimensional pearl in water. The embossed name "Noa Perle" provides additional haptic appeal.



► technology FoilStar for high quality metallic effects is also in operation. "We are constantly investing in the newest Heidelberg technology," explains print shop director Norbert Görlitz. On top of that are die-cutting and hot foil stamping machines as well as gluers for finishing from the Diana and Diana Pro series.

Cold Foil as New Glamour Item. The continuous investment in the newest Heidelberg technology is with good cause. Manufacturers of luxury goods constantly present top packaging printers like Edelmann with new challenges. It's an exciting game of always trying to use colors, coatings, gloss effects and embossing to create something new and pull it off perfectly. Applying cold foil opens up new optical design possibilities with metallic effects, for example in the combination of metal foil and ink in printed photos and images.

Edelmann is a forerunner in the branch in this respect as well and offers this technology as "CEMETAL." "During this process, the foil is applied to the printing stock with the help of an adhesive printed in offset," explains Matthias Welp, head of the premium packaging division. Fine structures and elements such as texts, lines and screen vignettes can be created using cold foil technology as successfully as large full surfaces. In contrast to stamping foil printing, the character of the material is fully maintained. Edelmann CEMETAL has also successfully produced the packaging for the "Moon Sparkle" summer scent from the luxury brand Escada.

Edelmann initially tested the FoilStar module during a joint field test with Heidelberg on a two-color Speedmaster CD 102 with coating unit. Due to the convincing results and the growing demand for such high quality coating, the packaging specialists changed to a two-color Speedmaster XL 105 with coating unit and extended delivery at the beginning of the year. This enables them to process up to six foils with different widths simultaneously.

Showered with Awards. Whoever places such high value on quality will inevitably be rewarded for it – not just with long-time and satisfied customers, but also awards. In the last three decades, Edelmann has won around 60 of them, and that in increasingly faster succession. The highlight up until now was without a doubt their distinction last year as "Packaging Printer of the Year" by the branch magazine Druck & Medien. The award, which is also known as the Kodak Award, honors creativity, an innovative spirit and the highest standards of quality. An example of innovative and creative packaging produced with the highest quality by Edelmann is that for the new perfume for women, "Noa Perle" by Cacharel. In order to achieve a mother-of-pearl colored and simultaneously optically vibrant gloss, a hologram foil was applied to the cubical box, which reflects the bot-

tle's spherical shape. This creates the delightful optical impression of a deceptively real pearl floating in water, gathering light and seductively iridescent. At the industry trade fair Luxepack, which took place last October in Monaco, Edelmann was honored with the Pentaward in the category "luxury perfumes." The design was also nominated for the renowned French packaging award, "Oscar de l'Emballage."

Group's Success is No Coincidence. With their focus set on printing high quality packaging, top-notch quality and a consistent push for international expansion, the print shop group's enduring success is no coincidence. This is demonstrated by economic data, too. Some-

Our focus on increasingly higher quality products is based on consistently investing in the best technology. In the realm of printing, that clearly means Heidelberg for us."

what more than half of annual sales of around 271 million US dollars (180 m. euros) stems from the pharmaceutical division, a good 40 percent from the premium division, which includes cosmetics, perfume and hair coloring, in addition to packaging for food and cigarettes to a smaller extent. Edelmann prints a portion of the packaging for the luxury brand Sobranie, for example. It is one of the most expensive cigarette brands in the world – with blind stamping, emblem stamping, UV coating, matt and gloss, and all with a perfect register accuracy of all individual elements. "That's more involved than some luxury packaging," marketing director Robert Putz says.

The team at Edelmann deliberately chooses not to enter the mass market of premium packaging for luxury articles – relatively small but therefore excellent – that's the motto in Heidenheim. "We aren't big enough for worldwide business with global brands," they say with Swabian modesty. The question of earnings is met with a smile as is so often the case in Swabia. "Many of the industry giants would be happy to acquire us," Dierk says, allowing a small glimpse into their success. "But Edelmann is and remains a family business." ■

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FRIENDLY SPIRITS, GOOD BUSINESS

S. SILPA CO. LTD., THAILAND // In the “land of smiles,” Somkid Fuwongcharoen and his brother Somchai can laugh easily: Their print shop, S. Silpa, in Nonthaburi near Bangkok, specializes in folding boxes and is growing fast. Its reliable quality is a particular selling point for international customers from the consumer goods industry. An unusual fact: Employees live next door to the print shop for free.

The Thai people love their country and their Monarch, His Majesty King Bhumibol Adulyadej. Their Beloved King is with them almost everywhere, in the form of his portraits which can be seen in homes or in the workplaces. Thais even wear the yellow color, the specially chosen color of their cloths, to demonstrate their loving loyalty in honor of their King and his family. Visitors to S. Silpa Co. Ltd. will see a larger-than-life portrait of His Majesty the King, whose reign as a monarch is longer than any other king in the world, together with Her Majesty Queen Sirikit, prominently and impressively displayed on the company’s building lower roof.

The print shop is typically “Thai” in other respects as well. Directly next to the modern company building is a Spirit House (Thai San Phra Phum) as tall as a person. Spirit Houses are erected during construction on a piece of land. They offer the spirits which had inhabited the grounds up until then a new home. Regular offerings also help to appease the spirits. The belief in spirits has

been widespread throughout the country for centuries and is a remnant of an old folk religion tolerated by Buddhism. Like 95 percent of his fellow countrymen, print shop owner, Somkid Fuwongcharoen, is Buddhist. The 49-year-old also shares his strong appreciation of cleanliness and order with this group. He views both as important requirements for high quality production. S. Silpa’s manager’s personal philosophy is accordingly simple and clear, too, “I am constantly striving for better quality.”

New Building in Nonthaburi. Somkid made his philosophy into the motto of the print shop, which he took over from his father in 1982 when he was 24 years old. His first official act was to introduce a system of quality management with industrial standards. At that time, the company headquarters were still in Bangkok. S. Silpa had 180 employees and printed primarily commercial products. The production area of 32,292 square feet (3,000 sq. m.) was spread out over two buildings and a total of five ▶



The dual leadership at S. Silpa: The brothers Somchai and Somkid Fuwongcharoen have been controlling the fate of the print shop founded by their father since 1982 (from left).

► floors. While this impeded on an ideal production flow, it didn't interrupt the increasing demand. Soon the building was bursting at all seams. "Moving within Bangkok wasn't an option because of the horrendous real estate prices," the print shop owner remembers. "That's why we decided on a newly constructed building in Nonthaburi, located 25 miles away."

Today, S. Silpa employees around 450 people, including 260 in manufacturing and 60 in the quality management department. The remaining employees work in administration, prepress and servicing. In the mean-

"WE WILL MOST LIKELY BE PRINTING ONLY WITH UV IN THE NEAR FUTURE."

time, folding boxes make up 90 percent of production; the remaining 10 percent goes to labels. The entire production space of 75,347 square feet (7,000 sq. m.) is now all on one level. This enables the quality management system to be better implemented. In 2007, the business grew by 12 percent – almost three times as strongly as the Thai economy. The total revenue amounts to around 12.12 million US dollars (8.16 m. euros).

What explanation is there for this success story? "We always invest in new technology and personnel development. In this way we achieve quality which enables us to tie down even the most demanding customers long-term," explains Somkid. "Our customers also value the very good price-performance ratio and 100 percent adherence to delivery dates," adds Somchai Fuwongcharoen who actively supports his brother in business management. The ISO 9001 certification certainly plays a role as well. It ensures that quality management covers all business processes.

The First Folding Box Customer. The year 1985 was a milestone in S. Silpa's business. At this time, the consumer goods corporation Procter & Gamble took over Richardson-Vicks, which manufactured the brand Vicks (cold remedies) as well as Oil of Olay (cosmetics) and had the packaging produced by small Thai print shops. Procter & Gamble set higher quality standards than Richardson-Vicks, however. Since many printing companies could not fulfill its quality requirements, the consumer goods corporation began to work with Silpa. "Since that time, Procter & Gamble has been one of our largest customers for folding boxes. And because we constantly adhere to strict standards, we are continually expanding the business," says Somkid proudly. Today S. Silpa achieves around 80 percent of sales from large international customers like Toyota or Beiersdorf. In general, the print shop profits from foreign corporations which invest strongly in Thailand and have packaging produced locally – provided the quality is right.

Work without Rent. Qualified printing staff is a scarce commodity in the heart of Southeast Asia. That's why Thai print shops usually train their employees themselves. "Most newcomers bring basic knowledge with them at most. But already after a year of training they can operate a two-color printing press reliably," says Somchai. The print shop also offers its enthusiastic support for the development of its executives. Ten of 17 employees at the middle management level complete a high school degree with the help of S. Silpa. Somkid places great value on teamwork, "It's like cresting the top of a mountain. Each person helps the other and carries him a bit now and then." As manager, he sets a good example. S. Silpa now offers 20 scholarships yearly. Participants come from all business areas and attend the courses on Sundays or after the workday is over.

The investment in its staff is well-spent: Fluctuation in the business is low. Hardly any expertise is lost in the process. There's an additional reason for employees' trust, however. They can all live for free in their own apartments next to the print shop. They only pay



The spirit house (top) is meant to protect the modern print shop from misfortune. Somphong Sa-aad takes care of organization in the spacious warehouse. Print assistant Panom Kan-kay's "favorite machine" – a six-color Speedmaster CD 102 with coating unit. The apartments available free-of-charge are airy and equipped with televisions.



for water and electricity. Men and women live on different floors. The rooms are sunny and have televisions. Most of them visit the well-loved company cafeteria. These are real gourmets who enjoy their dishes anywhere from sticky sweet to hellishly spicy. Only rice can't be missing from any meal. The question "Gin arai gap khao?" (What did you eat?) literally means: What did you eat with your rice?

Technological Edge. For Somkid, modern technology is as indispensable as motivated and competent employees. From the very start, he has relied on Heidelberg. The first printing press Somkid purchased was a five-color Speedmaster 102 F-L. While testing the press, he learned a lot about printing. "It became clear to me that we first needed to be a step ahead of other printers in terms of expertise. Only then is it possible to take full advantage of technology advances for the benefit of the customer," explains Somkid.

In the following years, the printers enjoyed the introduction of three additional newcomers: a four-color Speedmaster CD 102, a six-color Speedmaster CD 102 with coating unit as well as a six-color Speedmaster CD 74 with coating unit and UV equipment. The demand for UV printing is growing rapidly. In 2007 the percentage of orders with UV was still around 10 percent. "This year we're already expecting an increase to 50 percent. In the future we may very well be printing only with UV," Somkid predicts and adds that the next UV press has already been all but ordered.

Finances Well Under Control. Heidelberg solutions are already in operation in prepress and finishing as well, for example Polar cutting systems and a Suprasetter E 105. Using the Prinect Prepress Interface, S. Silpa transfers printing data from prepress to the printing presses. This enables throughput time and sources of error to be reduced. The color measurement system Prinect Image Control supports the folding box specialist in quality management during printing and prepress. "In making investments, our top priority is increasing quality," explains ►

THAILAND GLOSSARY

Siam: Up until 1939, what is today Thailand was called “Siam.” The word stems from the Sanskrit “shyma,” which can be translated as “dark” or “black.” This was what Thailand’s inhabitants were once called by their neighbors. Another opinion is that parts of the word Siam may have come from the Khmer language, and the meaning is “agriculturist.”

Thailand: “Thai” means “free” in the national language and is a tribute to the fact that the proud country was never colonized. Combined with the English “land,” “Thailand” emerges. Thais themselves affectionately refer to their country as “müang thai” (city, region) or also “prathêet thai” (state, country).

Thai Alphabet: The Thai alphabet was developed in 1283 by King Ramkamaeng and consists of 44 consonants and 21 vowels. Words are not separated by spaces, however, there are punctuation marks.

Wai: The Thai way of greeting in which the palms are placed together and raised to chest level or higher – how high is dependent upon the social status of the person to be greeted.

Jai-yen: “Cool heart,” the Thai term for patience and composure. Those who maintain their “jai-yen” are considered admirable. The opposite is “jai-ron,” or “hot heart.”

Karma: A spiritual concept in which every action has consequences – in real life or possibly in a later life after reincarnation. Good deeds are rewarded with a favorable destiny, bad with an unfavorable.

Tham-bun: “To do good deeds,” according to the traditional Thai way of thinking. “Tham-bun” has a positive effect on one’s reincarnation. The most visible example of this kind of readiness to help is their provision of food for the monks every morning.



► Somkid. “Only then do we increase production speed and in this way also productivity.” Thanks to a well thought out financial concept, the print shop always possesses the capital for investments at short notice. The “inventor” of the concept is Somkid, who studied economics and worked at an investment bank before his printing career. “A reasonable margin for investments is important in order to be able to react quickly to technological innovations,” explains Somkid.

Custom-tailored Packaging. Excellent service is a part of Thailand like sunshine and coconut milk. S. Silpa is no exception. The print shop supports its customers not only with printing but also during the development of packaging. Technical drawings are created in the CAD system according to customer specifications. The drafts are then

“TEAMWORK IS
LIKE CRESTING
A MOUNTAIN. EACH
PERSON HELPS THE
OTHER AND CARRIES
HIM FOR A BIT NOW
AND THEN.”

tested, for example for their transportability. Following this, the type of finishing is decided on. Here customers have numerous options, like relief embossing, hot foil stamping, UV spot coating as well as metallic and Iriodin colors. “At the end, we manufacture a dummy, make press proofs, produce pre-series for test runs or carry out market tests,” says Somchai. “When we develop the packaging, we often begin with the ideal. If this is too expensive for the customer, we sit down with him and eliminate certain details.”

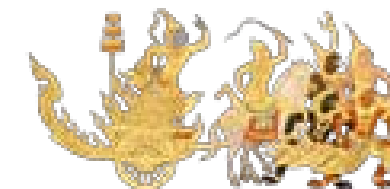
Using the Suprasetter CtP system and the RIP solution Prinect MetaDimension (RIP: raster image processor), S. Silpa prints with



Thailand is known for its beautiful temples such as the Temple of the Emerald Buddha, part of the Grand Palace; Temple of Dawn in Bangkok. Monks are highly respected. Every man is supposed to spend at least three months of his life as a monk in order to study the Buddhist teachings. Inexpensive restaurants can be found on virtually every corner. Thai cuisine is low-fat, rich in vitamins and very nutritious.

an FM and hybrid screen. This allows for a very flexible use of special colors. Customers need other special colors almost weekly for their hair tones, packaging such as 20,000 dark brown violet or 1,000 platinum blond ash. When the special color is changed, only the settings on the Suprasetter and the RIP solution have to be adjusted; the plates and printing press remain unchanged. This enables a constantly high quality.

Growing Together. What plans does S. Silpa have for the future? “We want to excite our customers with impeccable quality and grow with them,” says Somkid optimistically. That’s no easy task – which is why the enthusiastic golfer is left with increasingly little time for his hobby – particularly since he has an ambitious goal. In 2551 he wants to repeat last year’s two-digit growth. 2551? Thailand follows the Buddhist calendar, which begins in 543 B.C., the year of Buddha’s death or according to Buddhistic teachings, his nirvana. “Converted,” 2551 is 2008. ■



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News & Reports

HAGRAF S.A. // ANNIVERSARY MOVE

CHILE. Heidelberg's South American sales partner, Hagraf S.A., celebrated its 30-year anniversary last year and had a special present for its customers for the occasion: Hagraf opened up a new headquarters with a completely newly designed demo center in Quilicura near Santiago de Chile. Prospective customers can now view various solutions from Heidelberg live and in action on the building's 17,222 square foot (1,600 sq. m.) area. Information on Prinect workflows, the systemservice and consumables complete the diverse range of services focusing on benefits to the customer. The new address is:

Hagraf S.A. Chile
 Av. Presidente Eduardo Frei Montalva Nr. 6050
 Quilicura, Santiago, Chile
 Telephone: +56 (2) 827 8000
 Email: info@hagraf.com



New showroom included: The newly opened headquarters of Heidelberg's sales partner Hagraf S.A. in Santiago de Chile.

RESEARCH PROJECT // PRINTING "FUNCTIONAL MATERIALS"

GERMANY. Together with the Institut für Druckmaschinen und Druckverfahren (The Institute for Printing Machines and Printing Processes) at the Technical University in Darmstadt, Heidelberg has begun a research platform for printing on so-called functional materials. The goal of the project is to develop applications in the area of smart packaging as well as novel finishing technology. For this purpose, Heidelberg installed the worldwide unique reel fed printing press Gallus RCS 330-HD, which enables offset, flexographic, gravure and screen printing or inkjet simultaneously or in variable orders. Printing takes place on paper, cardboard and foil, among other materials. The corresponding tests are intended to eventually lead to industrial processes which could be interesting for partners outside of the print media branch as well.



Beginning the joint research project on printing with functional materials: Manfred Jurkewitz, director of research and development at Heidelberg, and Dr. Edgar Dörsam, director of the Institut für Druckmaschinen und Druckverfahren at the Technical University of Darmstadt (from left).

PRINECT IMAGE CONTROL // GOOD GETS EVEN BETTER

GERMANY. Heidelberg is now delivering its color measurement and management system Prinect Image Control with the integrated Prinect Quality Monitor. At the push of a button, this tool provides all important quality parameters at a glance (for example tonal value increase/color deviations, etc.) for each measured sheet. As part of a Prinect workflow, the Image Control also fully automatically registers the type and position of print control strips as well as mini spots and takes care of it with only simple user prompting. In addition, an optimized image control function contributes to a better balance of process-related influences on the tonal values. In the end, this both simplifies and accelerates quality analyses. Those who already have an older version of Prinect Image Control can update it with the new functions.



Good gets even better: New software functions for Prinect Image Control accelerate quality analysis in print shops during ongoing production.

THEORY & PRACTICE // MATERIAL FOR TEACHERS

MALAYSIA. The Print Media Academy in Kuala Lumpur hosted a teachers' forum at the end of last year – and more than 70 educators from the Southeast Asian print media industry attended. There, participants received an intensive course on modern prepress, press and postpress technology. The Print Media Academy's web-based "Teach & Learn," which makes current training materials as well as comprehensive industry information available to teachers for free, was met with particular interest. But the teachers didn't just hit the books; they also visited various Heidelberg customers to deepen their theoretical knowledge with practical operating experience. This mix was so well-received that the teachers have now expressed a wish to regularly repeat the forum.

info // www.print-media-academy.com or teachandlearn@heidelberg.com



Learn and be amazed: At the first teachers' forum by the Print Media Academy in Malaysia, 70 trainers from the Southeast Asian print media industry got a good look at modern print technology.

GLUING // NEW DEMO CENTER IN LEIPZIG

GERMANY. Heidelberg opened a new gluing center at the postpress location in Leipzig last year. Interested customers can view the entire range of gluing products live and in action on the almost 5,382 square foot (500 sq. m.) space. There are currently demonstrations on the Eurobind models EB 600, EB 1300 PUR and EB 4000, including all available units necessary for the gluing process. The modern equipment is rounded off with a central steam suction removal system for dust, shavings and glue. Those interested in a tour can get in touch with a contact partner at Heidelberg.



Gluing live: Heidelberg has started running a new demo center on gluing at the Leipzig location.



KITEC // HEIDELBERG SUPPORTS KNOWLEDGE FACTORY

GERMANY. The need for well-trained technicians, engineers and academics will continue to grow in Germany, too. In order to excite tomorrow's skilled workers about technology early on, Heidelberg is supporting the project "KiTec – Kinder entdecken Technik" (Children Discover Technology) by equipping nine elementary schools with a technology treasure chest. The box contains various tools and materials from the fields of structural, automotive and electrical engineering for students to practice with. Teachers are trained by Heidelberg employees so that they don't make any mistakes when working with the tools. KiTec is a project by the "Wissensfabrik – Unternehmen für Deutschland e.V.," an association of 60 leading businesses in Germany. The goal of this cooperation is to introduce the next generation to the sciences and technology and thus contribute to Germany's sustainability.



Technology for Children: Heidelberg's chairman Bernhard Schreier (middle) inspects the technology treasure chest which the business provides to nine German elementary schools.

FAR EASTERN INITIATIVE // CUSTOMER NETWORK FOR PRINETCT

JAPAN. In the same year as Heidelberg Japan's 80th birthday, the customer organization there, "Heidelberg Forum 21" (HDF21) has started a new initiative. Under the direction of HDF21 chairman, Kazunori Yabe, as well as Kohei Yamamoto, manager of Heidelberg Japan, around 300 members have united to create the "Prinetct Promotion Network." The goal of this customer network is to inform themselves in more detail on modern methods of optimizing printing processes, acquaint themselves with the ideal application of corresponding technology at participating businesses and share experiences within the framework of workshops. The Prinetct Promotion Network is intended to prepare members of HDF21 as well as others for the challenges which they will have to face in 21st century print media brought on by innovation and changing reader habits.



Kazunori Yabe, chairman of the Japanese customer organization HDF21, and Kohei Yamamoto, manager of Heidelberg Japan, launched the Prinetct Promotion Network. (from left)

PALLETIZING SYSTEMS // HEIDELBERG COOPERATES WITH WINKLER+DÜNNEBIER

GERMANY. Heidelberg has been selling the universal palletizing systems by Winkler+Dünnebier AG (W+D) since the beginning of the year. This enables Heidelberg to offer its customers from the folding box or packaging industry a complete line for the packaging workflow. The palletizers by W+D can be individually adjusted to fit various needs, are available both as single station and multiple station arrangements and are distinguished by their high degree of flexibility. Slip sheets and foils can be fitted to and placed on the pallet labels, for example. An ideal product infeed technique and fully automatic format adjustment contribute to high process reliability.

info // www.w-d.de



New in the Heidelberg Portfolio: Universal palletizers by Winkler+Dünnebier. Here the W+D 931 with foil and slip sheet placer.

"SAPHIRA" // UNIFORM BRAND NAME FOR CONSUMABLES

GERMANY. Heidelberg is gathering its portfolio of consumables called "Saphira" for the upcoming drupa. Saphira unites a wide range of products, all tested and chosen for use with Heidelberg solutions. Whether the user needs materials for daily print orders or special applications in prepress, press and postpress, Saphira products stand for quality and an excellent cost-benefit ratio. Heidelberg's consumables thus help printers to use the full range of their machine's functions optimally and manufacture first-rate print media economically. There are even extra performance packets available for special applications. The entire Saphira palette is available from the usual sources as well as an increasing number of Heidelberg online shops.



Heidelberg rounds off its business with its own consumables called "Saphira."

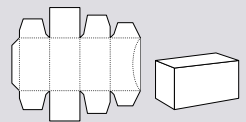
SYSTEMSERVICE // 36PLUS AND PARTNER PROGRAM ON THE ADVANCE

BRAZIL / RUSSIA / CZECH REPUBLIC. Heidelberg is expanding its range of services geographically, too. The service agreements systemservice36plus as well as Partner Program have in the meantime also been established in Brazil, Russia, and the Czech Republic. Systemservice-36plus is included in the purchase of a new machine and includes 36 months of repair, replacement parts, Remote Services and access to the global network of Heidelberg experts. The contract is linked to maintenance and inspections. The optional Partner Program allows print shops to custom-tailor a service contract based on varying modules. Both variations contribute to making production more stable and reliable in 21 (systemservice36plus) or 11 (partner program) countries – with the tendency upwards!

info // www.heidelberg.com/hd/systemservice

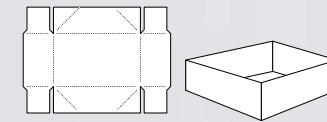
Glue it yourself!

FOLDER GLUER EASYGLUER 100 // Why should third-party providers fold and glue packaging that you printed in-house? In light of the booming packaging market and versatile machines like the Easygluer 100, more and more commercial printers are questioning just that and planning their entry into professional finishing.



The Straight Line Folding Box //

...is manufactured from one piece and is particularly suited for lighter contents. Closing insert or cover flaps across from one another allow for a graphical all-round design. The folding box has a glue line running lengthwise, is delivered flat and is erected for filling.



The 4-corner Collapsible Box //

...can be processed with the Easygluer 100 optionally. The folding box is made up of two parts (lid and floor) with four glued joints each and is transported flat before being erected for use. It can be filled easily from above, is very stable and is reusable.



Outsourcing” was long considered to be the road to success in the manufacturing industry in order to reduce costs and increase flexibility. Particularly car manufacturers have shifted as many production steps as possible outside. In the meantime, this development has lost significant speed and, to a certain extent, has even turned in the other direction. It can pay off to increase in-house production depth. Commercial printers who don't just print folding boxes, for example, but also completely manufacture them in their own operation, profit in many ways. They participate more strongly in the growing packaging market, win additional leeway in calculating orders and can offer their packaging customers a full service. The flexibility and relatively minimal investment sum make new machines like the Easygluer 100 not just suitable for beginners though. They're also interesting for finishing specialists, who can broaden their range of services or replace older machines with modern technology.

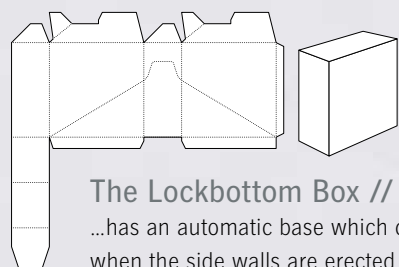
No More Margins for Third Party Providers. “The Easygluer 100 can process a wide range of demanding folding boxes – and that very productively,” says Thomas Kalkreuth of product management for die-cutters and folder gluers at Heidelberg. This is true even though

the folder gluer wasn't designed for bulk goods. The advantages of the Easygluer 100 – for example the easy operation over a touch screen or wireless remote control – are particularly advantageous for short to middle-length runs.

This is in part because storage costs for manufactured folding boxes with shorter runs can be significantly reduced and the margins for third-party providers disappear entirely. Furthermore, the Easygluer 100 plays no small part in creating customer loyalty. After all, the client has only one contact person throughout the entire production process instead of two.

“With the Easygluer 100, we have developed a folder gluer that's also ideal for entering into the market for professional folding box gluing,” explains Kalkreuth.

Some smaller and middle-sized print shops still rely on manual labor for folding and gluing packaging in short runs. “This approach is no longer modern,” says Kalkreuth, sharing a real-life example. “With the Easygluer 100, one of our German commercial customers only needs around an hour for finishing a print order now instead of several days.” Heidelberg's new folder gluer can also be correspondingly utilized as all-rounder: In its standard configuration, it processes straightline folding boxes, lockbottom boxes and folding boxes with lids. On top of that, it can also be configured to manufacture ▶



The Lockbottom Box //

...has an automatic base which closes independently when the side walls are erected. The advantage: The packaging is assembled in no time. In addition, it is also very stable and thus a good choice for heavy contents.

- ▶ 4- and 6-corner collapsible boxes used to package chocolate truffles and candy, for example. Also included in the Easygluer 100's repertoire are covers for CDs and DVDs or special boxes – provided the necessary optional folding elements are employed.

Reliable Quality Production. The Easygluer 100's product quality satisfies the highest of expectations right from the start. An optional alignment module which guides blanks precisely and at full speed – even those with asymmetrical shapes or with difficult materials like corrugated board – brings additional advantages. "The alignment module aligns the blanks exactly and forwards them on to the prefolder. This increases production reliability and simultaneously reduces the feeder's make-ready time," reports Kalkreuth. A further advantage is that print shops don't need experienced qualified staff for the complex set up, particularly of the feeder.

Processing continues just as smoothly after alignment, because the prefolder, lockbottom module and folding station all possess an upper and lower central transport system. Like the other transport systems, it has light aluminum roller bars which transport the blanks reliably to each processing station. Even large format blanks with

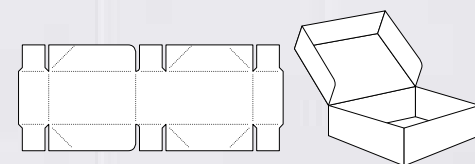
"ONE OF OUR CUSTOMERS NOW ONLY NEEDS AROUND AN HOUR INSTEAD OF SEVERAL DAYS TO FINISH AN ORDER."

THOMAS KALKREUTH, PRODUCT MANAGEMENT OF DIE-CUTTERS AND FOLDER GLUERS AT HEIDELBERG

widths of up to 39.4 inches (100 cm) pass through the machine securely before they are then glued and carefully folded at the 9.5 foot (2.9 m) long folding station.

50,000 Boxes per Hour. The Easygluer 100 works with speeds of up to 984 feet per minute (300 m/min.). This enables a maximum of 50,000 folding boxes or 30,000 four-corner collapsible boxes to be produced per hour. Folding box cardboards with grammages of 200 to 600 gsm as well as corrugated board with N, F and E flutes can be processed.

Start in a "Second Career." "Right now our biggest success with the Easygluer 100 has been in South and Central America," reports Kalkreuth, "But we're sure that our new entry model will find great resonance worldwide." For a lot of commercial printers, the Easygluer 100 could be the kick-off to a promising "second career." Those who have broken into finishing can expand their production line with a Varimatrix 105 C or CD (with or without stripping station), for example, or a hot foil stamping machine Varimatrix 105 CSF and win completely new customers groups in the process. As it's so nicely put – a journey of a thousand miles begins with a single step. In this case, the Easygluer 100 is that initial step. ■



The 6-Corner Collapsible Box //

...can also be processed optionally with the Easygluer 100. It is manufactured from piece and is ready to use after erecting the side walls. In also has an attached lid, which makes the packaging with six glued joints reclosable and can be used multiple times. The contents are always well-stored.

Advantages of the Easygluer 100

Enormous Versatility

In its standard configuration, straightline folding boxes, lockbottom boxes and folding boxes with lids can be processed, optionally also four and six-corner collapsible boxes, CD and DVD covers and special boxes.

Reliable Production Quality

Prefolder, lockbottom module and folding station have a central transport system, the optional alignment module ensures a precise feeding of the blanks at full speed.

High Productivity

Maximum output per hour is 50,000 folding boxes or 30,000 four-corner collapsible boxes.

Simple Operation

The machine can be operated over a touch screen or wireless remote control.

Further Information

on the Easygluer 100 is available at: www.heidelberg.com/hd/Easygluer100



Mission: Brand Protection

SECURITY PRINTING // Original or counterfeit? This question isn't just gaining frequency with brand name textiles and perfumes. These days, counterfeiters are copying everything that's good and not particularly cheap. Hidden safety features on packaging, as well as the products themselves, can expose counterfeits. Here, efficient print technology plays a prominent and important role.



More than 2,400 years ago the Greek philosopher Socrates said, “I know that I know nothing.” “I see that I see nothing” comes to mind when speaking with Karl-Heinz Walther. The 53 year old is manager of Special Applications at Heidelberg and works on new applications in offset printing, for example, with hidden safety features. “Take this coffee packaging,” he says and puts a folded box on the table. “Look at this part.” Walther points to a monochrome, beige-brown surface. Then he asks expectantly, “What do you see?”

The answer is clear: a monochrome, beige-brown surface. And other than that – nothing. Walter smiles. He’s familiar with these kinds of reactions from countless field tests like this. With a look of quiet triumph in his eyes, he pulls a small, thin, transparent plastic card the size of a credit card out. He then places the card on the beige-brown area, turns it this way and that, holds it to the light a bit – and all of a sudden the outline of a coffee bean can be recognized noticeably and clearly.

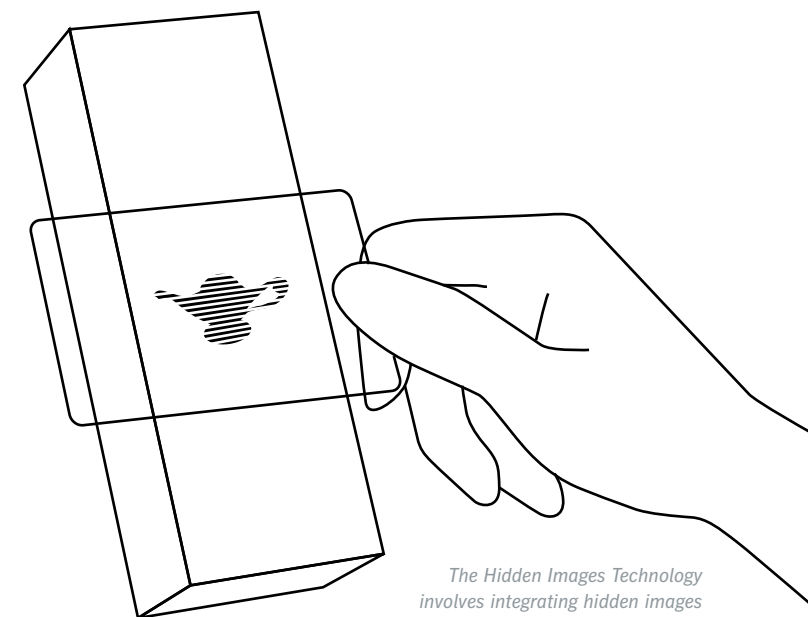
Global Counterfeit Industry. In reality, the seemingly unimpressive plastic card is a high-tech product – a typical decoder and part of a sophisticated system which is gaining increasing importance. It’s intended to provide effective protection against a phenomenon which has long exceeded the status of a harmless crime – piracy and counterfeiting. In the age of globalization and electronization, there’s hardly anything anymore which doesn’t get counterfeited.

Almost all products and brands are affected: watches and jewelry, textiles and sporting goods, CDs and movies. Software, cosmetics, cigarettes, drinks, food and pharmaceuticals, too, of course. The more illustrious the name, the better the image and the higher the price – the greater the appeal for counterfeits. Counterfeiters entered the market for investment goods long ago and are happily copying technical products from the engineering, car and even aviation industries. It may be aggravating for buyers of counterfeited luxury goods when, for example, the “gold” on a counterfeited Rolex peels off after a year. It gets truly dangerous for the consumer, however, when the alleged “original” soccer jersey causes skin irritations from toxic textile inks, counterfeited medications come with disagreeable side effects or inferior replacement parts in cars and airplanes fail.

Exceedingly High Damage. The International Chamber of Commerce (ICC) estimates the merchandise value from worldwide sales of counterfeited products to be 600 billion dollars (390.8 bn. euros). Customs authorities even assume figures around 1.2 trillion dollars (781

bn. euros), which would correspond to almost 10 percent of world trade. According to calculations done by the German Business Institute, 70,000 jobs have already been lost in Germany alone due to piracy and counterfeiting; worldwide it’s around 200,000, particularly in the OECD countries. As a consequence of the increasing globalization, the number of counterfeits has drastically risen in the last years. The German customs authorities alone confiscated counterfeited products amounting to 1.8 billion U.S. dollars (1.2 bn. euros) in 2006, five times as much as in the previous year. The German Engineering Federation estimates the damage to be 6.9 billion U.S. dollars (4.5 bn. euros) per year in their branch alone.

Hidden Images. The quality of counterfeited products has without a doubt increased over the past years. Counterfeiters place almost more importance on a seemingly original label and as authentic a packaging as possible than the product itself. If these look “real,” the criminal work of art suggests to the customer that the contents are too. This approach doesn’t come from nowhere. For consumers, it’s nearly impossible to distinguish the original and counterfeit from one another at first glance. Putting a complete stop to counterfeiting is surely like tilting at windmills – utterly hopeless. Nevertheless, hosts of masterminds are busy making their handiwork at least more difficult with the help of increasingly more sophisticated technology.

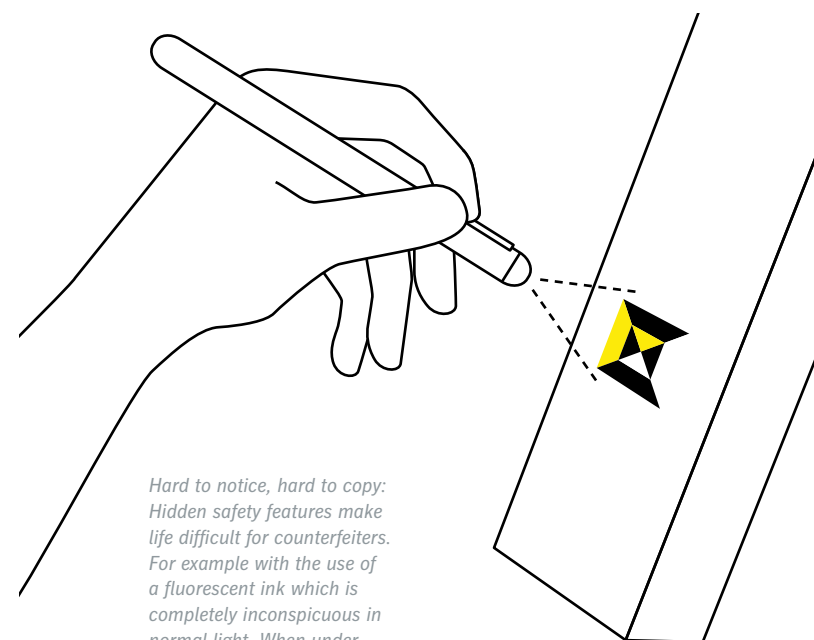


The Hidden Images Technology involves integrating hidden images directly into the color separations. Special software inserts encrypted image information into client’s original files. The hidden image only becomes visible to the eye with the corresponding optical decoder.

Particularly in the fast-moving market for consumer goods, the rapidly increasing demand for fraud resistant packaging and labels proves the great need for brand protection.

For example the initially invisible coffee bean demonstrated by Walther. What at first glance appears to be a kind of magic or trick, is in reality a kind of offset printing. “We effectively break down the electronic pixels of the bean into two halves,” he explains. “We print one half – no longer perceivable to the human eye – on the packaging. The other half determines the optical structure of the decoder which works similarly to a prism.” Using special software, the magic bean is programmed with a patented coding algorithm and inserted into the original print data. “Graphically speaking, we create an extremely strong moiré effect with this procedure, which we then dissolve again with the decoder,” says Walther. This principle has also found application on other kinds of “secret carriers” outside of printing. Walther brings out a replacement part for a machine and points to a certain spot – a gray area identical to the rest. A small plastic decoder, similar to the coffee packaging, however, makes a company logo appear on the metal. In this case, the safety feature was applied using lasers.

Inexpensive Inline Processing. The use of moiré effects developed for the print industry arose from a joint project by Heidelberg Druckmaschinen AG and the Saueressig Security International GmbH in the north German town of Vreden. Both businesses signed an exclusive cooperation agreement a good two years ago to ▶



Hard to notice, hard to copy: Hidden safety features make life difficult for counterfeiters. For example with the use of a fluorescent ink which is completely inconspicuous in normal light. When under the rays of a shortwave UV lamp, the applied ink visibly gains brilliance.

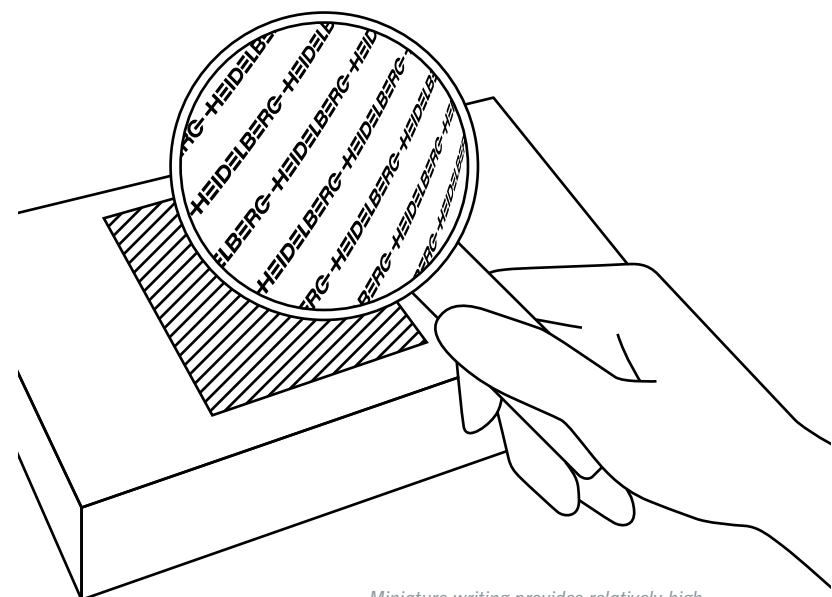
“THE INTERNATIONAL CHAMBER OF COMMERCE ESTIMATES THE MERCHANDISE VALUE FROM WORLD-WIDE SALES OF COUNTERFEITED PRODUCTS TO BE 600 BILLION DOLLARS. CUSTOMS AUTHORITIES EVEN ASSUME FIGURES AROUND 1.2 TRILLION DOLLARS, WHICH WOULD CORRESPOND TO ALMOST 10 PERCENT OF WORLD TRADE.”

KARL-HEINZ WALTHER

► develop inexpensive inline procedures for safety features and finishings. The fact that the features are invisible has several advantages: The counterfeiter isn't able to detect that the original packaging is protected. Accordingly, he won't take any precautionary procedures – which, in turn, increases the probability that the counterfeiter or his counterfeit will be uncovered. At the same time, the packaging's designer can be pleased that a visible safety feature will not get in his way artistically.

It's not the intention of this technology for end consumers to go through stores with a prism decoder in their hands and inspect perfumes or CDs for counterfeits. That would be almost impossible out of practical reasons alone. After all, every hidden image is generated with its own individual code algorithm and therefore needs its own decoder. These devices for aiding tracking are distinctly helpful for organizations like customs or special service providers who are commissioned by large brand name or pharmaceutical companies to search for counterfeits worldwide.

For packaging printers, it's now easier than ever before to integrate hidden images into packaging using the process developed by Heidelberg and Saueressig. The customer loads printable data for his folding box onto the Heidelberg homepage and sends any desired

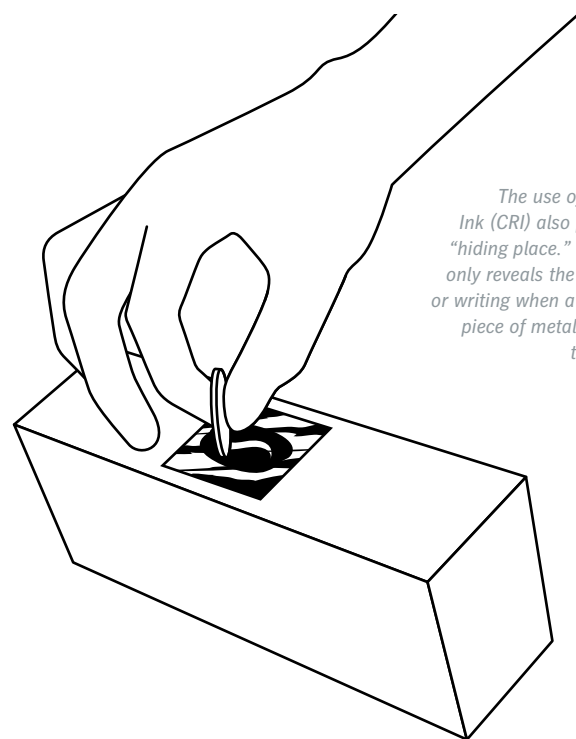


Miniature writing provides relatively high security with minimal effort/investment. The process is based on a microscopically small printed line of text which to the naked eye is only visible as a line. Conventional copiers and laser printers can't reproduce this particularly fine print yet.

image to be hidden with it. After testing for feasibility, he receives the printable data back – with the hidden image included. The necessary decoders follow by mail. The customer can then use this security package for a year, independent of the order's length.

Growing Need for Safety Features. The process developed together with Saueressig is not the only method to include hidden images, graphics or text to packaging or products themselves. The number of more or less invisible security features is growing – not just to protect products, but also documents. On a 20 euro note, for example, there are no fewer than 14 safety features present, on a German personal ID nine, on the driver license eight and on a credit card also two to three. Even the conspicuous color gradients on IDs or credit cards bring some security, because the soft color gradients can only be produced with iris printing. Heidelberg provides a solution for this as well.

“A good 1.1 billion U.S. dollars (750 m. euros) was spent worldwide to protect brands at the turn of the millennium,” explains Dr. Martin Schmitt-Lewen, manager of Technology Intelligence at Heidelberg. “By the year 2015, this sum will have more than doubled,” he added. We can eagerly follow which methods of protection against piracy and counterfeiting will still be developed in the industry during this time. Right now, an inconspicuous white surface area can create an “aha effect” – when you rub it with a coin and all of a sudden a logo becomes visible, because the ink reacts with the metal in the coin. You get the same result when you rub a razor-thin foil, which at first glance would be considered an elaborately designed element of a packaging. Another method is to apply a fluorescent



The use of Coin Reactive Ink (CRI) also provides a safe “hiding place.” The special ink only reveals the hidden images or writing when a coin or similar piece of metal is rubbed over the safety layer.



“A GOOD 1.1 BILLION US DOLLARS WAS SPENT WORLDWIDE TO PROTECT BRANDS AT THE TURN OF THE MILLENNIUM. BY THE YEAR 2015, THIS SUM WILL HAVE MORE THAN DOUBLED.”

DR. MARTIN SCHMITT-LEWEN

coating hardly visible to the eye to the packaging. A small black light the size of a pen is enough to make the message contained in the coating appear. Micro fonts are also not recognizable right away for the naked eye. A strong black fingerprint on packaging reveals the tiny writing hidden in one of the capillaries when you view it with a magnifying glass. And whoever thinks there is only a thin blue line around the logo on your credit card is also mistaken: Here, too, a magnifying glass helps to reveal writing. Micro features like these can already be achieved with standard printing presses by Heidelberg without trouble – even in combination with the finest line patterns (“guilloche”), which act as carrier for the micro text, so to speak. Counterfeiters still have a hard time because of the enormous demands in prepress.

One Technology Ahead. Last but not least, embossments can also be used as an excellent security technique. If the embossment is only a few millionths of a millimeter deep, you can neither see it with the naked eye nor feel it with the tips of your fingers. Similar to the hidden images, they need a special decoder to make the feature “pop up.” These kinds of high-tech embossing creations make a counterfeiter's work significantly more difficult. The more elaborate a procedure is, the harder it is to copy. Particularly when the procedures are combined – for example, an embossment, hidden image and a fluorescent coating together. But even Walther and Schmitt-Lewen know that there's nothing that couldn't at some point be counterfeited. Safety features aren't an exception. “For us,” they both emphasize, “that means that we always have to be at least one technology ahead of the counterfeiters.” ■

The Interdisciplinary Heidelberg Team

Karl-Heinz Walther, Senior Vice President of Special Applications, is closely in touch with the market and knows users well. His work focuses on security, card and inkjet printing.

Dr. Martin Schmitt-Lewen analyzes and evaluates new technologies such as printed electronics, security features and other new print applications from the perspective of “Product Strategy,” where he works as Innovations Manager.

Print samples and further information are available by request at security.solutions@heidelberg.com

Direct access to the security package is available at www.heidelberg.com/hd/Sicherheit



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HEIDELBERG

Like Two Peas in a Pod

PRINECT PACKAGING WORKFLOW // Having to enter data only once reduces sources of error and above all else saves money and make-ready time. This is the idea behind the Prinect Packaging Workflow, the first integrated workflow for packaging printers, which Heidelberg will present at drupa 2008. And the Prinect Packaging Workflow can do even more than save time and reduce errors. It makes expenses transparent, reduces waste and ensures a constant high quality in color – even over multiple runs.

At the end, it all comes down to the packaging. Products have to be protected reliably, promote their purchase with an appealing design and look equally good at all times. After all, in addition to a product's quality, consumers also pay attention to the recall value of a product's "cover." What does that mean for manufacturers of packaging and labels? Their task is to process repeat orders – which make up around 80 percent of all of packaging printing – with the exact same quality. This is because packaging from different production batches is often located directly next to each other on supermarket shelves. But packaging and labels don't just need to be as similar as two peas in a pod. As bulk goods, packaging has to be able to be produced economically above all else, which means as fast as possible and without wasting any expensive material or ink.

Packaging Printer as Partner. Constant color quality, short make-ready times, little waste – this is the starting point for the new Prinect Packaging Workflow which connects management, prepress, press and postpress into one continuous workflow. "During the design phase of the packaging workflow, we worked closely with around thirty larger and smaller packaging printers from Asia, Europe and America," says Sabine Roob, senior product manager of Prinect Preprint Applications & Packaging at Heidelberg. "We therefore knew exactly which real-life demands exist and could continue with and precisely align our development accordingly." The Prinect Packaging Workflow isn't a product in the traditional sense, but rather a combination of several Prinect software components. It's also not completely new. Heidelberg's Prinect workflow has already been well-established with commercial printers all over the world for a long time. Special functions have been added to extend it to packaging printing. Roob comments, "It was a logical step to further develop our Prinect workflow to fit packaging printers. After all, a lot of production

steps in commercial and packaging printing are nearly identical. And more and more companies want to produce both – for example pharmaceutical packaging and package inserts or CD covers and booklets."

Highest Production Reliability. The Prinect Packaging Workflow uses the open Job Definition Format (JDF) to integrate all of a print shop's departments. What emerges is a continuous information flow among all systems and machines involved in the planning, production and billing processes. Data therefore only has to be entered once and is then available throughout the entire workflow. Data created in prepress, for example, is forwarded to the printing press with the Prinect Pressroom Manager for automatic presetting. This reduces make-ready times and waste. The Prinect Postpress Manager also uses prepress data to set up die-cutters and folder gluers. In this way, print shops also profit from drastically reduced make-ready times in postpress, and since manual measurements and multiple entries aren't needed, mistakes and inaccuracies can be prevented.

Intelligent from Design to Finishing. Prinect Package Designer, an intelligent CAD/CAM system, meets all the demands of product development. With its help, users can create structural product designs, generate layouts, optimize sheets and prepare data for tool making. In addition, Prinect Package Designer supplies data for automatic presetting in postpress. The preparation of graphical data for output takes place either manually or automatically. It is done manually with the PDF Toolbox and standard tools, automated with Prinect Prepress Manager (previously known as Printready). The preparation of data includes the inspection and conversion of data, special color handling, trapping (over and under filling), color management, as well as last minute corrections. In so doing, Prinect Prepress Manager manages the generation of color, content or shape proofs, approval with customers – for example using Remote Proofing – and plate output. Naturally, it's also possible to create abstracts for spot coatings and particular special colors that should be processed using flexographic printing or as stampings. ▶

“THE SCALABILITY OF THE PRINECT SOLUTIONS ALLOWS CUSTOMERS TO ADJUST THEIR CONFIGURATION TO THEIR GROWTH.”

► **Comfortable Preparation of Printing Sheet.** In prepress, processes like impositioning and sheet assembly can be organized efficiently and comfortably with the Prinect Signa Station, a central Prinect component. Intelligent functions for format recognition, sheet optimization, cut definition and brand layout free the printer from complicated work steps. Comparisons of waste and run lengths with various sheet sizes help users choose the ideal production process and save valuable packaging material.

Prinect Signa Station was expanded to suit the needs of packaging printers and includes numerous new functions, for example for import and export as well as corrections and revisions of all established CAD formats. “It’s important to us that the seamless transfer of data also include the CAD system. This is because in structural packaging design, data is already created which can be used directly to exactly preset the folder gluer, for example,” explains Roob. In order to inspect them, folding boxes can be viewed both in the Prinect Package Designer as well as with the Prinect Signa Station as virtual 3D representations. The folding process can be viewed in individual work steps, and it’s possible to either include or eliminate images according to your needs. “The 3D depiction can also be sent as soft-proof to customers. This promotes a fast and economic adjustment,” Roob says. In addition, packaging printers profit from intelligent, strongly automated brand handling – including material-saving mini spots.

Consistent Color Quality. Repeat orders are the packaging printers’ daily bread. The exact replication of the desired colors is therefore very important. The integrated Color Management features based on ICC profiles makes sure this is the case. It can be used to create profile with up to seven process colors. In order to prevent deviations in color across various repeat orders during press, Print Color Management from Heidelberg offers tried and true tools. Printed sheets can be inspected either randomly or completely using the okay sheet. Inking is

adjusted immediately. This ensures absolute color reliability – even when using special colors. Content-related deviations can be ruled out with a visual examination of each individual printed sheet with Inspection Control, a camera system in the last printing unit.

Transparent Expenses. The price war is growing increasingly tougher in packaging printing as well. Packaging printers therefore need reliable and transparent production costs for preliminary and final costing. “Almost all international packaging printers who supported us in the development of the Prinect Packaging Workflow want more exact numbers about how much an order’s production will really cost,” Roob says. “That’s why we want data from production to flow directly to various MIS (Management Information System) and ERP solutions (Enterprise Resource Planning) and be able to be precisely analyzed there.” The connection of branch specific software solutions via JDF is also necessary for another reason: For many packaging products, especially in the areas of food and pharmaceuticals, there are legal regulations for batch tracing. Job specific information therefore has to be stored long-term in MIS and ERP solutions.

Electronic Planning Table. In planning production, many packaging printers – as well as commercial printers – still work with external software modules or manual planning tables. This makes the planning process laborious and intransparent. The new Prinect Scheduler is an electronic planning table completely integrated into the Prinect Workflow and relieves schedulers in their daily work. Schedulers can now have the current status of each individual print order constantly in sight and see the free and occupied capacities of work spaces in all areas of the print shop in real time. “When the scheduler plans multiple print orders with the same color allocations together or wants to make reservations for accepted orders in advance in order to optimize pro-

duction, he/she can do this directly using the electronic production planning, where the effects of the entire plan are immediately visible,” explains Roob.

Individually Configurable. The Prinect Packaging Workflow can be individually configured for the various demands in packaging printing – independent of whether a print shop has specialized in one application, is looking for an entry level integration solution, or whether it wants to integrate the entire business as quickly as possible. Because of its flexibility, the Prinect Packaging Workflow is also suitable for the increasing number of print shops which provide both packaging as well as commercial printing. “The scalability of the Prinect solutions allows customers to adjust their configuration to their growth. And thanks to the modular conception, the investment is secure long-term,” says Roob.

Live at drupa 2008. The extent to which Heidelberg is expanding its range of solutions for packaging printers isn’t just visible with the Prinect Packaging Workflow software example. Heidelberg is presenting a lot of innovations tailored to the needs of packaging printers at drupa 2008 in machines for prepress, press and postpress. You will be able to experience the Prinect Packaging Workflow live in Düsseldorf. For Roob, one thing’s already for sure, “Heidelberg is digging in to deliver packaging printers with custom-tailored solutions.” ■

Prinect Packaging Workflow ...

- was designed by Heidelberg in close cooperation with international packaging printers.
- integrates management, prepress, press and postpress into one unified workflow using the open Job Definition Format (JDF) as a foundation.
- enables orders to be produced with consistently high quality faster, more economically, and with transparent expenses.
- reduces waste as well as make-ready times in press and postpress.
- makes the production process more reliable, for example by preventing multiple entries.
- grows with a print shop’s demands, thanks to the modular concept, and is therefore a secure long-term investment.
- can be individually configured, for example when a print shop wants to produce packaging and commercial products simultaneously.

Further information

on the Prinect Packaging Workflow is available at www.heidelberg.com/hd/PrinectPackagingWorkflow



“High Performance Solutions for Solid Business”

INTERVIEW WITH BERNHARD SCHREIER // With the motto “HEI Performance – HEI Value,” Heidelberg will be setting new trends at the upcoming drupa. Heidelberg News talked with Bernhard Schreier, chairman of Heidelberger Druckmaschinen AG, about what advantages print shops all over the world can draw from it.

Mr. Schreier, imagine for a moment that you came to drupa as a printer. What would you expect from Heidelberg?

Schreier: As a printer, I would want to see technology. As manager of a print shop, I would want to see evidence of how my trust in Heidelberg pays off.

Do these expectations match the demands from customers?

Schreier: Our customers of course sometimes direct very individual wishes at us – but based on my experience from countless conversations with customers, at the end of the day, most requests truly come down to these two main points. So to a certain extent, you could certainly characterize them as “representative.” After all, all of the print shops in the world are interested in technological progress and, above all else, what advantages the print shop can gain from this progress.

Even though the general conditions are quite different from a global perspective?

Schreier: The local conditions are of course different from country to country. That’s why some businesses are already well provided for with one of our robust and efficient entry level models, while other print shops require significantly higher performance equipment. Nevertheless, all the printing businesses in the world have one thing in common: They are all up against the laws of a market economy. And that means that print shops in newly industrializing countries have to establish themselves against their respective competition the same as businesses in industrial countries. On top of that is the fact that we are living in the age of glo-

balization, which is why this competition very quickly takes on an international nature. You could also go one step further in saying that this phenomenon highlights another similarity, because globalization affects both businesses in industrial countries as well as print shops in newly industrializing countries.

Could you explain that in more detail?

Schreier: Let’s take India as an example. A lot of multinationals, mostly from industrial countries, are active there. That also means that the customers from these businesses are accustomed to “western standards for print media” and therefore expect the corresponding quality. From the perspective of the Indian print industry, that means the following: If they can’t meet these customers’ demands, the print jobs will be given to other countries – to countries with print shops that produce high quality products with reliable delivery.

Is the highly disputed movement of business transactions to low-wage countries possibly exaggerated?

Schreier: It may be that this topic is overly discussed in the public here. There’s no real reason for panic: after all, the cumulative print volume in industrial countries has been rising by around 2 percent per year for several years. Nevertheless, technological development in the so-called low-wage countries is also progressing – which means that those printing standard products in a high-wage location are well-advised to optimize their productivity. Cost-effective production naturally offers the best chances of being part of the growth in industrial countries and also for remaining ▶

► able to compete internationally. Another way to do this seems to be through differentiation. We've observed in the recent past that more and more color is being applied to paper. That indicates that an increasing amount of print media is being printed extra elaborately. This skillful coating of print products requires expertise simply not yet existent at some low-wage locations. So print shops in many industrial countries can also secure themselves an edge in this way. This advantage is all the more valuable, since finished print products also promise the larger margins. In order to siphon off of these margins, print shops in industrial countries obviously have to distinguish themselves from the strong "local" competition as well. Excellent quality and efficient production are therefore irreplaceable.

And how do you want to help your customers do this?

Schreier: Everything we do, all of our innovations in machines, processes, applications and services aren't meant to an end in themselves – they are all catered solely to the user's advantage. This is exactly why we've also taken the motto "HEI Performance – HEI Value" for our presence at drupa 2008. The meaning we hope to convey is that Heidelberg delivers high-performance solutions which offer our customers a real added value. Or, in other words, our entire portfolio is intended to help the customer operate his business as successfully as possible.

That's certainly a commendable claim – but how about proof?

Schreier: The best proof is in concrete case studies based on the respective business model and suitable set of equipment including the corresponding services. That's why I would like to recommend prospective buyers to have an individual consultation with our Heidelberg staff. My colleagues from Business Consulting, for example, are happily available to create a personal calculation of profitability within the framework of a confidential conversation. And those who already have their eye on a profitable investment can have our experts from Financial Services tailor a custom-made financing plan.

Ok, but you certainly have experience and numbers which are transferable...

Schreier: Of course. I can happily give you some skeleton data. Let's start with a topic that's growing ever more important in industrial countries, as well as in newly industrializing countries: process integration. The print shop workflow Prinect puts the user in the position of being able to calculate faster and more precisely, accelerate all processes in the operation, control colors exactly, reduce waste and increase print quality. We've determined that for most users, a Prinect installation amortizes already

after a year. And after a glance at the mid-term cost-value ratio, a lot of reservations very quickly give way to downright enthusiasm. Because experience has shown, that over a period of five years, an impressive return on investment of between roughly 600 and more than 3,000 percent can be achieved with Prinect! And while we're on the subject, at drupa we'll be presenting a completely remodeled Prinect architecture which has been significantly simplified in its application. In addition, we'll also be the first manufacturer to present a completely integrated workflow for packaging printers – our Prinect Packaging solution.

And aside from Prinect?

Schreier: ...our machine technology itself also contributes to positive changes in a business' cost structure, of course. With our thermal platesetting system from the Suprasetter family, up to 38 plates per hour can be manufactured beginning at drupa 2008. This increases productivity. An example from press shows what that means at the end of the day. Let's assume we have one of the new Speedmaster XL75s working at full capacity, which – thanks to the 18,000 sheets per hour – increases the user's productivity by 30 percent. Naturally, the cost of consumables for paper, ink, etc. increases as a result and the XL 75 also has to be financed of course. But within the new cost structure, the productivity increase pays off in disproportional margins. The result is that even if the XL 75 was 1.5 times more expensive than a lower performance model, you would still double your earnings with it. This model calculation is neither made up of thin air nor contained to the XL 75 alone. It's based on the cost structures we've found with our customers, and it can be applied to all similarly placed cost-value comparisons. When you then consider that the entire set of machines usually only accounts for roughly a tenth of all running costs in an operation, the effect of this kind of increase in productivity on company earnings is really enormous.

Don't you then run the risk of postpress turning into a bottleneck with those kinds of high speeds, which then once again slows the productivity gains in press?

Schreier: In order to prevent that, our customers can integrate continuously more postpress equipment into their Prinect workflow so that postpress is precisely prepared for the incoming print job. Generally, users profit from the newly increased level of automation in our postpress solutions – specifically in the form of higher net performance. In the case of the new Stahlfolder KH 82, for example, we were able to cut make-ready times in half and simultaneously increase folding speeds to 755 feet (230 m.) per minute. This increases net performance by 20 percent. We also make rapid production speeds possible for our customers in postpress. ►

“Heidelberg delivers high-performance solutions which offer our customers a real added value. Or in other words, our entire portfolio is intended to help the customer operate his business as successfully as possible.”



“All of our innovations in machines, processes, applications and services aren’t meant to an end in themselves – they are all catered solely to the user’s advantage.”



► *Racehorses are generally considered to be nervous – or even sensitive...*

Schreier: That may be true in nature. But to stick to this metaphor – before we let go of our “breeds” to customers, they’ve already successfully completed all kinds of training or tests. This means that they normally perform reliably for customers, even at constant full loads. And if one of our “racehorses” should ever fall out of step, our systemservice can help it get back on its feet in no time – for example with the new Remote Service eCall. Expensive downtimes can be reduced to a minimum with our service offerings, or in the ideal scenario even be avoided completely or at least better planned. In the end, this also has a positive effect on the owner’s balance sheet. According to our customers, the regular maintenance increases the productivity of their machines by a remarkable 23 percent.

But won’t people be in over their heads technologically speaking?

Schreier: Not really, because modern technology also simplifies a lot of things too. For example, with our new central control console, the Prinect Press Center, you only need to enter half the information to achieve the desired result. In addition, a lot of print shops can be happy that many process steps can be taken care of at the push of a button thanks to the progressive automation, since well-trained employees are often a scarce commodity. That’s not just the case in developing and newly industrializing countries, but also in industrial countries. After all, an extremely high-end result can almost inevitably be elicited from our machines only by well-trained printers. So every user definitely needs to go with the times and get further training. The same is true of a business’ management, for whom a clear positioning of the print shop as well as marketing of its own range of options is growing increasingly important. The Print Media Academy offers custom-tailored education for both ends with 18 locations around the world.

Since you just raised a global problem – to what degree are you environmentally conscious?

Schreier: We contend that Heidelberg belongs to the ecological forerunners of the industry and justifiably so. We’ve installed certified environmental management systems in the majority of our development and production locations and offer solutions that also help our customers offer more environmentally-friendly production. In this way, with the help of various Prinect modules for color management – for example, Prinect Image Control and Prinect Inpress Control – or the inking unit Anicolor, tons of waste can be saved per year. Peripherals like AirStar 3000, CombiStar 3000 Pro and DryStar LYYL drastically

reduce power consumption. Or then there’s the PowderStar AP 500 Duo, which only needs about half the normal amount of powder. Our process exhaust system CleanStar decreases the emission of particulate matter to a fraction of the statutory limit. Our Saphira consumables are also chosen with the environment in mind and even usually exceed the legal industry standards. In addition, through alcohol-reduced or even alcohol-free printing on our presses, the discharge of volatile hydrocarbons can be significantly reduced. All of this benefits both the environment as well as a print shop’s finances. If you add up all the green savings potentials which can be achieved with a six-color Speedmaster 105 with coating, reduced expenditures of over 302,000 U.S. dollars (200,000 euros) come out in the end – year after year.

OK, last question: What is your personal drupa HEI Light?

Schreier: I would be lying if I didn’t answer the question with our new range of solutions for packaging, commercial and publishing printers: A production line from the jointly developed Suprasetter 145/162/190 and Speedmaster XL 145 and XL 162, which can be combined with the new die cutter Dymatrix 145 or the Stahlfolder TD 112/142. It is simply impressive. We’ll be presenting the large format Suprasetter generation as well as XL 162 from this package live in Düsseldorf. Whoever has the opportunity to visit drupa should definitely not miss out on this invaluable proof of Heidelberg engineering skill! ■

Further information

about Heidelberg’s “HEI Performance – HEI Value” concept as well as the corresponding range of solutions at drupa 2008 is available at the following website:

www.drupa-heidelberg.com



SEDUCTIVE PRINTING

A SENSUAL INVITATION TO BUY // Purchasing decisions are a sheer matter of feeling. This and other insights from the field of neuromarketing are gaining increasing entrance into the sales strategies of manufacturers of brand name goods. And the packaging plays a decisive role. It can trigger particularly strong impulses – especially when it speaks to all the senses simultaneously. Internationally renowned neuromarketing expert Hans-Georg Häusel explains which feelings distinguish the bestsellers from the shelf warmers and what makes packaging irresistibly “sexy.”

TOUCH~Often the Most Undervalued Sense

The skin, with a total surface area of up to 21.5 square feet (2 sq. m.) and a weight of 22 pounds (10 kilo), is the largest organ in the human body. Sensory receptors for touch are located across the entire skin surface area and are divided into five qualities: pressure, vibration, contact, temperature and pain. These qualities are experienced even more strongly on the hands, especially on the fingertips. Lips and the tongue are also equipped profusely with sensory cells for touch. This enables us to detect anything indigestible in our food immediately and experience kisses as particularly sensual. In newborns, the sense of touch is the best developed of all.

Research shows that products with a good feel are preferred. An unusual surface feel can be created with the choice of printing stock like paper, cardboard, foil or foam plastic. These can increase their emotional value with coating, flock coating, die-cutting, embossing, perforation, and also relief and high-build coating. Thermal inks, which change according to temperature or upon touch, have a particular surprise effect.

SIGHT~THE MOST INFLUENTIAL SENSE

Of all the five human senses, the sense of sight is by far the most important. Roughly 80 percent of all sensory impressions are perceived through the eyes. In so doing, the eye can distinguish around 150 shades from the spectrum of visible light and combine color perceptions to half a million. The brain first transforms optical sensory impressions into images – but it intensively sorts information out in the process. Otherwise you would quickly lose your orientation. So the sense of sight only focuses its attention on what the brain ranks as important. Slow movements or small details are often overlooked. Blinking lights, however, draw attention immediately and the eye reacts reflexively to fast movement.

In order to draw a customer's attention, packaging should therefore try to stand out from the masses with unusual colors, shapes, and materials as well as special effects. Possible kinds of finishing which catch your eye immediately are coatings – for example glitter, high-build, relief, drip-off or spot coating. Equally effective are special effects, which can be achieved with cold or hot foil and laminating. Using fine screens as well as hexachrome or highly pigmented inks is also advisable. Other "eye catchers" can be achieved with lenticular processing or by printing (transparent) synthetics.

What exactly takes place inside consumers' heads when shopping?

Häusel: Brain research in the last ten years has shown that our entire brain is more or less emotional. Objects that don't trigger an emotion are virtually worthless to the brain.

The stronger the emotions are which a product sets off, the more valuable it is for the brain and the more disposed a consumer is to buy it. Rational reasons, on the other hand, only seldom tip the scales because 70 to 80 percent of all purchase decisions take place completely unconsciously.

Do all consumers function the same from a neurological perspective?

Häusel: No. Even though every brain has the three large emotional systems – stimulation, dominance and balance – there are enormous differences. People with a strongly pronounced balance system long for security and stability. They are particularly careful consumers and like to stick to the tried and true. In others, the stimulation system prevails and therefore also their curiosity. These people are especially interested in new products and purchase them, too. Consumers with a very present dominance system on the other hand, have a strong preference for status products. These are the three basic types in every target group. Other factors also play a part, such as age. With increasing age, the areas in the brain responsible for dominance and stimulation lose influence, while the balance system comes to the forefront. Gender also has an enormous influence on our emotions. Men are on average more dominant, women more interested in care and relationship. Obviously, these different values also cause different product preferences.

Does sexuality also play a role in purchasing?

Häusel: Sexual stimulation plays a very decisive role in the purchase of many products. Some purchase decisions and product groups, however, are very clearly dominated by sexuality. For women, for example, sexuality is the real driver in the purchase of cosmetic and fashion products. Male sexuality on the other hand is closely connected to the dominance system and is a decisive driving force in status products like a car. In addition, male sexuality is strongly determined by the hormone testosterone. This causes the additional themes of power and aggression to come into play. In this case, buying is practically synonymous with conquering. With women, on the other hand, estrogen is predominant. This gears female sexuality more in the direction of seduction. All of this plays a role in a product's appeal.

How important is the packaging to a product's appeal?

Häusel: The packaging is the most important means of communication, well ahead of advertising. The packaging's design alone, as well as color and shape, trigger very different stimuli in the brain. A packaging's front and back, descriptions and pictures, the orchestrated sensory appeal or multiple sensory appeal – all of this plays an incredibly large role, because these stimuli are all processed in the unconscious centers of the brain. It has been shown that the consumer infers a product's value based on the signs and ▶

FOUR QUESTIONS, FOUR ANSWERS //

Brand experts on the sensual experience of print and their expectations of print shops



DIRK SCHÜLGEN
HEAD OF PRODUCT
MANAGEMENT // ELECTRONIC
ARTS // GERMANY

Do you think print is unusually sensual compared to other forms of media?

Absolutely. With brochures and packaging, consumers can spend time in a self-chosen environment. They can take hold of it, touch it, play with it or simply look at it – when they want and as long as they want. This sensory experience is unique.

What is the print medium's contribution to brand perception?

We're a part of the entertainment industry. Our products – computer and video games – are accordingly charged with emotions. Our packaging creates a direct contact to potential consumers as the last link of the marketing strategy. They therefore have to spark interest quickly but simultaneously also reflect the emotionality of our products.

What do you expect from a print shop in this respect?

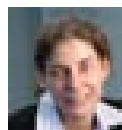
A smooth and high quality production flow. And of course creative, new approaches to packaging.

What are the mid to long-term trends in print media?

Our current motto is "less is more." We want to deliver an appealing design with clear structures to consumers. The challenge here is to still communicate the entire range of emotions. We'll be continuing to follow this goal in the future.

Dirk Schülgen

is responsible for all product-related marketing activities at Electronic Arts. Before his start at the largest developer of computer and video games, he was an active as marketing manager in the United States, among other places.



ELKE SCHÖNIG
COMMUNICATION MANAGER
GERMANY //
HEIDELBERGCEMENT AG

Do you think print is unusually sensual compared to other forms of media?

Yes. Unlike electronic media, print products can be easily carried with you all over the place – to bed, to the beach or on the plane – without disturbing others. You can open them or lavishly spread them out around you. You can touch, smell and leaf through them or simply rustle through the pages.

What is the print medium's contribution to brand perception?

Printed media is long-lived, flexible and communicates a lasting value. This strongly supports the brand with the various target audiences. In the appropriate "packaging," the contents reach exactly the desired receiver – at a construction site as well as in an executive suite.

What do you expect from a print shop in this respect?

Help in the creative realization and individual consultation. Solutions to problems, enthusiasm for new ideas and an absolutely reliable quality, of course.

What are the mid to long-term trends in print media?

The average reading time is decreasing consistently. That means that content will grow more compact and fast paced. On the other hand, there will always be elaborately designed products which retain their value and which people still reach out for. Simply because they're attractive.

Elke Schöning

coordinates and is responsible for corporate communications at HeidelbergCement. As part of this job she is also a member of the advisory board for Context, the customer magazine of the globally leading manufacturer of construction materials. Prior to that, Elke Schöning was responsible for public relations at the Bundesverbandes der Deutschen Zementindustrie (BDZ).

- ▶ symbols of its packaging. Which means that packaging can positively strengthen a product's characteristics, or make the product sexy, desirable and valuable. At the same time, however, they can also devalue a product significantly.

Hard shapes and dark colors are symbols for the dominance system and appeal to men. Soft, flowing, sensual shapes and light colors, on the hand, appeal more to female sexuality, because they stand for love, harmony and partnership.

Which senses should packaging appeal to?

Häusel: That's simple – ideally all of them! Research on the multiple sensory system has shown that an individual sense alone doesn't trigger particularly strong feelings. Only when all senses are addressed with the same message at the same time is there a so-called explosion of emotions in our brain called multisensory enhancement. If the packaging positively communicates the same message to all channels, the emotional value is up to 10 times higher than the sum of the isolated factors. Printers should therefore concern themselves intensively with the multisensory system and think about what the brain really absorbs.

Does that automatically mean that the trend is towards increasingly more elaborate packaging?

Häusel: No. Simple products for daily needs will remain in simpler packaging in the future as well. Manufacturers of brand name goods, on the other hand, are pushing more and more into the growing premium segment. There, the packaging of course has to satisfy the expectations of the premium market with its targeting of multiple senses and be intricately designed. ■



Dr. Hans-Georg Häusel

completed a doctoral degree in psychology and is on the executive board of the Nymphenburg group, which accompanies international manufacturers of branded goods and commercial enterprises from product positioning up to POS realization. Häusel's focus is on brand strategies and neuromarketing. He is the author of the bestsellers *Think Limbic* and *Brain Script* as well as editor of *Neuro-marketing – Erkenntnisse aus der Hirnforschung für Markenführung, Werbung und Verkauf* (Neuro-marketing: Results of Brain Research on Brand Management, Advertising and Sales).

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HEARING ~ The Fine Sense

The sense of hearing is the most differentiated of the human senses. The ears are more sensitive, more exact and even more capable than the eyes. They can distinguish 10 octaves and react to sound waves in a frequency range between 16 to 20,000 Hz. Humans can differentiate up to 400,000 sounds and determine the direction from which they come. Ears are constantly receiving 24 hours around the clock. Even when we are sleeping, our sense of hearing warns us of nearing perils. A soft voice has a calming effect, music brings us to tears and loud snoring can make us livid.

So it's no wonder that marketing experts don't leave anything to chance in terms of a product's sound – from the fizzling when you open a beer bottle or the cracking of potato chips up to the sound design in the automobile industry (for example the humming of the motor, the sound when you close the doors). The sound of the packaging material also influences a product's perception of course. If it snaps loudly when opening, for example, consumers get a feeling of freshness, stability and quality.

SMELL ~ The Nearly Unfiltered Sense

A person breathes in and out roughly 23,000 times per day and with each breath countless odor molecules are taken in. The sense of smell therefore works primarily in the background and only draws attention to itself when something smells particularly good or bad. Humans can distinguish among 10,000 different smells, even though the nose is the only sensory organ that sends its impulses directly to the brain and directs them right into the emotional center. The arriving odor information is converted into a feeling in almost no time. Depending on smell, this could be happiness, fear, or disgust, for example. The way someone smells has a strong influence on our sexuality and particularly our choice of partners. Smells can be simply irresistible. But there are significant cultural differences. Only one kind of scent is rated as positive worldwide without exception: the scent of flowers.

A scented coating with a positive fragrance can emotionally charge a product's message and gives it that "special something." Scented coatings are a special kind of dispersion which contains microscopically small capsules with scents. These open upon contact, rubbing, scratching or cutting, allowing the fragrances to unfold.

TASTE ~ The Weakest Sense

Nobody who enjoys eating would want to do without it. Nevertheless, the sense of taste is the most weakly pronounced in comparison to the other senses. The taste buds on your tongue can recognize only four qualities of taste – sweet, salty, sour and bitter – other details can only be identified in coordination with the nose. The experience of sweet is located at the tip of your tongue. The back of the tongue is responsible for a bitter taste. Salty is tasted on both edges of your tongue in the front area. Sour sensors are located in the back.

Taste buds can be appealed to with packaging made from edible paper, for example, or aromatized plant-based adhesives. When licked, the taste particles reach the tongue and trigger the sensory cells.

“Packaging Has to Be More Polite”

SENIOR CITIZEN-FRIENDLY PACKAGING // Since 1985, the Meyer-Hentschel Institute has been supporting businesses and social service providers in aligning their products and services with demographic change. The institute’s founders, Dr. Hanne Meyer-Hentschel and Dr. Gundolf Meyer-Hentschel, talked with us about the demands the target audience “60+” places on packaging and how print shops can support their customers in helping seniors.

Ms. Meyer-Hentschel, you advise companies to be more alert to the needs of older people when designing their products and packaging. Is the youth era over?

Hanne Meyer-Hentschel: No, that’s quite far from the case. But it’s true that more and more companies are recognizing the relevance of the topic and becoming active. And they should, too. After all, there are now around 100 million people living in Europe who are 60 years or older. In seven years it will already be 115 million. This quickly growing target audience has an enormous purchasing power – we’re talking about over roughly 150 billion U.S. dollars (100 bn. euros) of available income in Germany alone. Enormous competition is currently growing around this highly interesting target audience and it will get dramatically tougher. That’s the one side and that leads me to your question. On the other hand, there’s still a lot left to do with marketing for senior citizens, also in packaging. We know today that more than 90 percent of all consumers older than 60 have problems opening packaging. That means that younger consumers are still the focus. The needs of older people, on the other hand, are only inadequately taken into consideration.

What does the target audience of 60+ particularly value in packaging?

Hanne Meyer-Hentschel: The identifiability of products plays a very important role in a product’s point of sale. Older people want to recognize as quickly as possible if they have a shampoo or conditioner in their hands. Since these products usually look

very similar, the various differences can only be found in the product description. For this reason, good readability and easy to understand, factual information is important. After the purchase, other factors come to the forefront: Can the packaging be easily opened and closed again? Can the contents be removed or dosed without problem? As a whole, more functional aspects dominate which decide whether a consumer feels at ease with the product or not.

Gundolf Meyer-Hentschel: We like to sum things up by saying, “Packaging has to be more polite.” A box which is difficult to open confronts the generation 60+ with the limitations of becoming older. That’s impolite. It sends the message, “Something’s wrong with me.” Innovative businesses have enormous possibilities here. As long as all providers are the same and have labels which are hard to read, there’s naturally a stalemate in the competition. But as soon as someone comes along who makes the products distinguishable, who has easily readable labels, whose products are easy to open and close again, he or she will win these customers – simply because they feel more comfortable with these products both while shopping and afterwards.

Mr. Meyer-Hentschel, how can print shops support their customers in making packaging friendly to senior citizens?

Gundolf Meyer-Hentschel: There are a lot of possibilities. With the appropriate expertise, a print shop can strongly improve a label’s readability – without having to increase the text area. This goes well beyond simply increasing the type size. There are a total of roughly 20 parameters which have an enormous impact on readability. An incredible amount can be ▶



Painstaking field work at the supermarket: Hanne and Gundolf Meyer-Hentschel know exactly what’s important in senior-friendly packaging.

Feels Like 60+

This specially coated visor enables you to experience the yellowing, blurriness and increased sensitivity to light that occurs in old age. Matt-finished edges decrease the field of vision and make orientation more difficult. Between the ages of 20 and 80, visual accuracy reduces by up to 80 percent. Two thirds of the target audience 60+ suffer additionally from an increased sensitivity to light.

A sound absorber simulates the diminishing sensitivity to higher frequencies and dwindling hearing ability. Almost 50 percent of people between the ages of 45 and 64 have a hearing problem. In those over 65, it's 75 percent.

Special gloves enable the wearer to feel the reduced strength, decreasing dexterity and sensitivity to touch in his hands that is common in older age. In comparison to a 30 year old, a 75 year old has roughly 37 percent fewer nerve fibers. On average, he also has only about half as much muscle strength in his hands.

Weights on the arms and legs exemplify the general loss of strength. After the age of 50, a person loses 1 to 2 percent of his skeletal muscle mass per year.

Special bandages around the elbows and knees also limit mobility. A good 33 percent of seniors experience problems bending and stooping between the ages of 55 and 69.



- achieved with the right know-how in typography, color perception and contrasting effects. Relaying information as clearly as possible is also important. Older consumers react to complexity with increasing stress. Printers can tell their customers ways to “skim down” the packaging and significantly increase its shelf appeal. They can also pay attention to suitable choices for material. Packaging which audibly locks into place when closed is easier to handle than that which only sends a weak or no acoustic signal.

Hanne Meyer-Hentschel: The sensitive use of finishing techniques is another point. A customer commissioned us to analyze a product which was positioned for an older target audience but which had been losing market share year after year. In tests with its buyers, we determined that a lot of customers had made a mistake in their selection of products. The product labels “Eau de Toilette” and “Eau de Parfum” were printed in high-gloss writing, which was also very small on the packaging. The manufacturer thought gloss symbolizes value. But he hadn't thought about the fact that gloss impairs readability. We were able to convince the manufacturer to do without the glossy text. The result was a much better readability, independent of shelf lighting. Today the product is selling well again. It looks as nice as before, but it now has a more functional aesthetic which eases product selection.



A functional design doesn't suit all products though...

Hanne Meyer-Hentschel: That's true. Top priority for the manufacturer is the question of which target audience they have their sights set on and where they need to adjust the screws to be successful there. In this age of details, the smallest differences determine success or failure. In the senior citizen market, readability is a detail with central importance. You can't simply ignore that, espe-

“IN THIS AGE OF DETAILS, THE SMALLEST DIFFERENCES DETERMINE SUCCESS OR FAILURE.”

cially when the value which may be lost from omitting the glossy writing can be compensated for in other areas such as printing functional elements like the product description and pictures matte, and in contrast the logo in a precious gloss. Printers can give a lot of valuable suggestions here.

The suit you developed simulates the limitations of old age. What role does the so-called “Age Explorer” play in this respect?

Gundolf Meyer-Hentschel: With the Age Explorer, young product developers, market directors and brand directors can literally slip into the skin of a 60 or 70 year old. Weights, gloves and a special visor ensure that various age-related limitations are simulated as realistically as possible such as diminished muscular strength, decreased sight and hearing abilities, as well as increased sensitivity to light and a changed color perception. When they wear the suit, decision-makers experience their products from a whole new and interesting perspective. They experience first-hand what it means to open foil packaging when your fingers aren't as agile and the pull tab is hard to grasp. At the same time, the Age Explorer helps them to better interpret behavior patterns they observe in older people.

Tracking Old-Age

The Meyer-Hentschel Institute is considered to be the founder of market research for senior citizens in Europe. The organization has been supporting businesses from very diverse branches and social service providers in the age-appropriate design of their products and services since 1985. The diverse range of services stretches from market research and strategic communications consulting to cooperation on the development of consumer goods and packaging. Coaching designers and architects as well as in-patient and out-patient care providers is a further focus. Here, they also use the Age Explorer – a suit which simulates age-related limitations. The system's continuous further development is based on their own research results and interdisciplinary insights from the field of ergonomics, gerontology and physiology. In the meantime, around 10,000 customers have participated in the institute's Age Explorer workshops.

Could you give us an example of that?

Hanne Meyer-Hentschel: Yes. There are color differences and contrasting effects that you perceive without problem as a young person. From the perspective of the older population, however, they are not at all present and their impact dies. The cause of this is so-called yellowing, in which the ocular lens becomes increasingly more yellow from incident solar radiation. Color nuances close to one another can therefore hardly or no longer be differentiated such as blue and green or white and yellow. So when certain products occasionally distinguish themselves through very minimal color differences, some senior citizens don't perceive these differences at all. They reach for the wrong product or leave it on the shelf because they're unsure. But sometimes a packaging loses its





► aesthetic effect because the yellow adjustment makes it look unattractive. The Age Explorer makes visible these and many other details – which you would otherwise miss and which also can't be clarified with surveys. No one sees, what they don't see. This is where the Age Explorer helps someone get a good step further because it makes the differences visible.

What are the reactions like when a younger person puts on the Age Explorer for the first time?

Gundolf Meyer-Hentschel: Up until now, around 10,000 employees from social organizations and businesses have tried out the Age Explorer, including print shops, by the way. The reactions are continuously positive. This is also because the Age Explorer allows participants a very practical entrance into older peoples' experience of life. They can talk a lot about old-age and the associated

“BUSINESSES WHICH POSITION THEMSELVES WITH PRODUCTS FRIENDLY TO SENIOR-CITIZENS CLEARLY HAVE AN ADVANTAGE HERE. AND NOT JUST WITH OLDER TARGET AUDIENCES, BY THE WAY, BUT ALSO WITH YOUNG CONSUMERS.”

needs and sense a lot in a theoretical way. But the effect and degree of understanding are significantly higher when someone slips into the suit and within a few seconds is able to feel with their own senses what they normally only talk about.

At the beginning you spoke about the enormous purchasing power of the target audience 60+. Lately a lot of experts have been warning about increasing old-age poverty. Assuming these prognoses turn out to be true, do you think businesses will go in the other direction and confine their efforts in marketing for senior citizens?

Hanne Meyer-Hentschel: No, I don't think so. You can of course arrive at different results in terms of future purchasing power. That depends on whether only state pensions are taken into consideration or also private retirement provisions. Fact of

the matter is, however, that the target audience is growing fast and therefore also has an increasing impact on which products win out at the point of sale. Businesses which position themselves with products friendly to senior-citizens clearly have an advantage here. And not just with older target audiences, by the way, but also with young consumers. After all, the product improvement benefits everyone.

Gundolf Meyer-Hentschel: Furthermore, older target audiences are also increasingly willing to change and very open to new, practical solutions. The market share of individual products could shift quickly if a manufacturer caters to the wishes of the older generation. It also pays off in terms of customer faithfulness. Particularly a young product manager may think, "It's not worth it anymore" when it comes to a 60-year-old customer. But when you make it clear to him that this customer relationship will last another 24 years, statistically seen, then it becomes obvious: The possibility to bind a customer long-term is seldom in the youth or young family market. That's why we're convinced that businesses shouldn't limit their activities but rather expand them very quickly and massively. ■



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Delamination in Sheet-fed Offset Printing



THE DEVIL IS IN THE DETAILS, AS THEY SAY // This is the case for delamination as well – an error referring to the separation of layers in the printing stock, both with paper as well as cardboards.

Possible Causes

Often, printing paper has to be cut to the right size in the print shop. One or multiple cuts are necessary. When the stack to be cut is inserted into the guillotine cutter, the bottommost sheet can get stuck on an incorrectly positioned cutter bar. This leads to a separation of layers and rolled-up strips during further processing.

When inserting the sheets into the printing press, the front or back can be damaged from contact between cut edges. This problem occurs particularly frequently with thick layers. The layers get partially separated on the edges and roll up on the damaged spot from pushing the layer onto the stack.

Delamination can sometimes be caused by inserted wedges used to level the height of the pile, or the insertion of sword probes to measure humidity.

During paper manufacture, the paper reel is unrolled when cutting it to size. Sometimes the layers are partially stuck to one another. As a result, when unrolling the paper, the layers separate, tearing the surface and causing it to roll up.

Possible Remedies

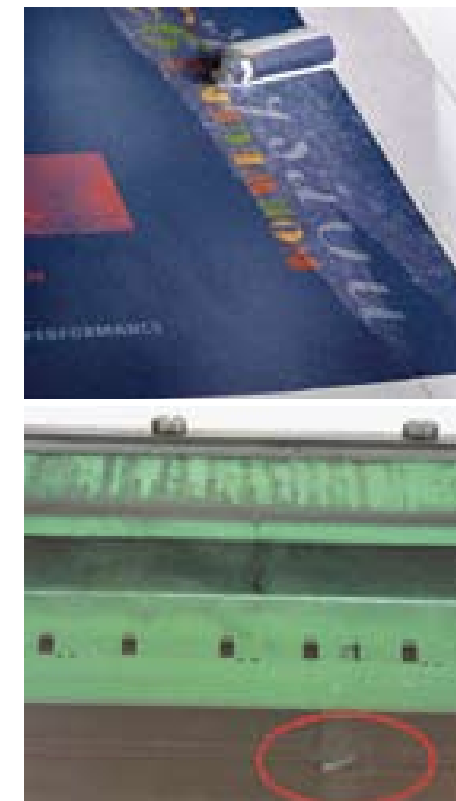
The aforementioned problems can almost always be prevented by being particularly attentive and working carefully. It's decisive for the bottommost sheet on the guillotine cutter to always be thrown out. This significantly reduces the risk of rolled-up strips of paper being run through the printing press. In addition, wedges or indicator probes should be inserted with utmost precaution. It is also highly advisable to have an air blast at the guillotine cutter table. Furthermore, it's absolutely necessary to make sure that a newly installed cutter bar doesn't protrude out anywhere from the table.

A Practical Example

In one print shop, the delivered sheets had to be cut to the desired size. The bottommost sheet of the pile to be cut was always damaged on one edge that was in contact with a falsely positioned cutter bar. The result was small rips and injuries which formed into multiple rolled-up strips during further processing.

The Fogra Graphic Technology Research Association was brought in for an expert assessment and was able to identify the cutter bar as the clear cause for the delamination. Multiple sheets were affected. They all exhibited damage to the edge at the exact same spot. That was also precisely the point where the printing stock was delaminated and rolled up.

Once the damage has been caused, the issue of liability comes up. For the processing of complaints, it's particularly helpful when the problem sheet can be secured. Using this sheet, conclusions can often be drawn as to the origin of the rolled-up strips. If the rolled-up strips are at the edge of the sheet and increase in width during processing, for example, the cause can be traced back to cutting or de-piling. If the delamination begins in the middle of the sheet, things point to origination in the paper mill. Fogra's processing of such complaints shows, however, that nine out of ten are caused by faulty procedures in the print shop. ■



Layers can roll up in the pile up to 15 times during various motional processes. This leads to rolled-up strips on the printing stock. If these are run through the printing press, the printing blankets inevitably get damaged and in extreme cases, other units can also be damaged.

Further Information

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MEN AT WORK // EPISODE 1
JUAN GARGIULO,
 BUENOS AIRES, ARGENTINA

The Problem Solver

JUAN GARGIULO arrived at Triñanes Gráfica in Buenos Aires in 1991 after earning a degree in computer science. Today he is manager of prepress. Together with five employees, he delivers the printing plates for the customers of the print shop with 50 employees. The 35-year-old lives with his wife, Carla, and his two sons, Ramiro and Bruno, in their own house in Pilar, a city district in northern Buenos Aires. Every day, Juan drives 37 miles (60 km) from Pilar to work.

37 miles (60 km) to work – a good three hours there and back – isn't that a bit much?

Of course it's a lot. But my wife and I love Pilar because it's so quiet there. And changing to another company also doesn't come into question for me. I have a very good relationship with my bosses.

What part of your work do you enjoy the most?

For me, the best part is when I can solve customers' problems. The customers come to us with their photos and we turn them into printable quality. Then the customers are happy and I am, too.

The biggest challenge in your job?

When the customers deliver original Power Point or Word Perfect files which we're supposed to magically turn into printable templates. That's often a lot of work puzzling things together which you need a lot of experience for.

What do you like about Argentina?

It's my home. I don't think I could really be happy somewhere else. I like the companionability here. For example at Asado, a typical Argentinean barbecue, you sit with friends, talk and simply enjoy life.

What do you eat for breakfast, lunch and dinner?

For breakfast, at 6:30 a.m., I eat toast with cheese and drink black coffee. At lunchtime at the company I usually only eat a sandwich and in the evening, when I get home, there's a warm family dinner around 9:30 p.m.

Have you laughed or cursed yet today?

Of course I've laughed already today, but I've also cursed. I curse every day, at every opportunity, in the car, at work, while waiting in line. I think that's part of Argentinean culture.

What is your biggest dream?

Eight hours of sleep and four weeks vacation.

HN Voices

🇺🇬 Mohamed Wahid Said, Kampala, Uganda // *The quality of the Heidelberg News is simply fantastic and is well above the possibilities we have here in Africa. Perhaps Heidelberg could support us even more in the future with training events here locally. Such an investment would pay off for everyone.*

🇫🇮 Alexei Reznik, Kouvola, Finland // *The more you read, the better the magazine gets. The articles are informative, and the layout never feels like a company publication but instead a "real" magazine. I would, however, like to see the news and reports more at the beginning of the magazine.*

🇩🇪 Stefanie Gutfreund, Arnsberg, Germany // *Interesting topics, successful design!*

🇦🇷 Francisco Lizaraga, Paso del Rey, Argentina // *We're always thrilled to receive the latest edition of the Heidelberg News because we learn a lot and get to know colleagues from the around the world at the same time.*

🇦🇹 Michael Seidinger, Vienna, Austria // *Great magazine! Keep up the good work!*

🇪🇸 Cristina García-Manso Hernández, Madrid, Spain // *Congratulations on your magazine, which is once again a hit. The title-page and layout are very appealing. I particularly liked the article "The Sun Rises in the East" and could identify with it very well.*

🇮🇳 Mahendra Ramesh Bakle, Solapur, India // *Your magazine is very informative and worth every page. Thank you!*

WINNER OF THE READER'S SURVEY – HN 263

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Frederic Fairon, Alleur Printing SA, Rocourt, Belgium

2nd to 5th Prize: iPod

Rohit Vasa, Moon Engineers, Kolhapur, India
 Ralf Hartmann, Blutspendedienst West Druckerei, Münster, Germany
 Moshia Strato, Inter Press of Tanzania Ltd., Dar es Salaam, Tanzania
 Janeth Rivera, Impresiones Poligraf – Comercial, Cochabamba, Bolivia

6th to 10th Prize: XL 105 model

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 Samantha Davison, New England Typographic Service, Bloomfield, USA
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