Heidelberger Druckmaschinen

Sustainability Report 2007/2008

HEIDELBERG

Heidelberg at a Glance

Heidelberger Druckmaschinen AG (Heidelberg) is the world's leading provider of sheetfed offset presses and associated solutions for the print media industry. The core business of this technology group covers the entire process and value chain of the sheetfed offset format classes from 20-inch (35 x 50 cm) to 40-inch (75 x 105 cm), corresponding to the A3 to A1 paper formats. In 2008, its portfolio of solutions was extended upward to include the new 57-inch (106 x 145 cm) and 64-inch (121 x 162 cm) formats. The Heidelberg name stands for top quality, customer focus, and customer benefits: HEI Performance – HEI Value.

Heidelberg develops and manufactures precision printing presses, equipment for plate imaging and postpress finishing, as well as software for integrating all of a printing company's processes. This is rounded out by the training offerings of the Print Media Academy, consulting, a wide range of services, supply of service parts and consumables, and sales of reconditioned used equipment.

Based in the city of Heidelberg, Germany, with sites in six countries and around 250 sales and service units, the company serves over 200,000 customers in the industrialized countries belonging to the OECD and in growth markets in Asia and Eastern Europe. Over 80 percent of its sales are made outside Germany. Heidelberg equipment is used around the world to produce quality print products such as business cards, brochures, posters, and folding cartons.

In the 2007/2008 financial year the company had a sales volume of € 3.670 billion.

As of March 31, 2008 the Heidelberg Group employed 19,596 people, including 657 trainees and apprentices.

INDICATORS

Ten-year charts showing the company's business, social, and environmental indicators can be found on the Internet at www.heidelberg.com > About Us > Environment > **Sustainability Report**

SITES

Environmental data, names of contacts and general information on Heidelberg's production and development sites can be found on the Internet at www.heidelberg.com > About Us > Environment > **Site Data**

> BUSINESS INDICATORS

	2003/2004	2004/2005	2005/2006	2006/2007	**2007/2008**
Incoming orders in € millions	3,852	3,700	3,605	3,853	**3,649**
Net sales in € millions	3,746	3,360	3,586	3,803	**3,670**
Foreign sales in percent	88.8	85.3	86.9	85.1	**83.8**
Result of operating activities[1] **in € millions**	79	171	277	362	**268**
Profit before taxes in € millions	– 506	106	229	300	**199**
Net loss/profit in € millions	– 695	59	135	263	**142**
– **in percent of sales**	– 18.6	1.8	3.8	6.9	**3.9**
R&D expenditures in € millions	317	211	214	237	**222**
Patent applications	260	156	153	153	**158**
Investments in € millions	164	162	169	178	**217**
Total assets in € millions	4,232	3,660	3,281	3,339	**3,507**
Shareholders' equity in € millions	1,230	1,166	1,138	1,202	**1,193**
Cash flow in percent of sales	– 3.2	6.9	9.6	10.5	**7.9**
Earnings per share in €	– 8.16	0.69	1.58	3.23	**1.81**
Dividends[2] **in €**	–	0.30	0.65	0.95	**0.95**

1) Prior to restructuring

2) For financial year 2006/2007 proposal of the Management Board and the Supervisory Board

> SOCIAL INDICATORS

	2003/2004	2004/2005	2005/2006	2006/2007	**2007/2008**
Employees at end of financial year[1]	22,513	18,416	18,436	19,171	**19,596**
– **in training**	764	678	662	651	**657**
Personnel expenditures in € millions	1,293	1,134	1,097	1,163	**1,180**
Female employees in percent	14.5	14.2	14.2	14.2	**14.3**
Severely disadvantaged employees at Heidelberger Druckmaschinen AG in percent	6.4	6.8	7.0	7.0	**7.0**
Part-time workers in percent	2.3	2.6	2.3	2.6	**2.7**
Accidents per thousand full-time employees[2]					
– **German sites**[3]	17.5	19.2	22.3	25.8	**22.0**
– **Other European sites**[3]	43.4	22.3	14.5	7.15	**8.5**
Suggestions for improvements at Heidelberger Druckmaschinen AG	2,980	3,692	4,456	4,538	**5,772**
Savings resulting from suggestions for improvements at Heidelberger Druckmaschinen AG in € millions	3.67	2.97	2.70	2.86	**3.48**

1) Previous years' figures were adjusted for employees in the exemption phase of their partial retirement

2) Causing more than three days of work to be missed

3) Production and development sites

> ENVIRONMENTAL INDICATORS

		2003/2004	2004/2005	2005/2006	2006/2007 [1]	**2007/2008** [1]
Number of production and development sites [2]		21	14	15	15	**15**
– **Included in report with input/output data**		21	14	13	14	**15**
– **With a certified environmental and quality management system acc. to ISO 14001 and 9001 (partly or fully integrated)**		14	8	8	8	**8**
– **Also with a certified integrated environmental, quality, and workplace safety management system (acc. to OHSAS 18001)**		0	0	1	1	**1**
Space utilization of all production and development sites in km²		4.18	2.52	2.34	2.33	**2.34**
Built-on and paved-over areas in percent		39.5	45.7	45.7	47.0	**47.0**
Energy input in GWh/a		495.0	432.7	423.4	427.1	**431.4**
– **Electric power in GWh/a**		269.2	235.7	245.8	257.3	**265.0**
– **Gas in GWh/a**		189.6	157.1	150.0	143.3	**142.2**
– **District heat in GWh/a**		34.2	37.4	24.6	24.7	**22.0**
– **Heating oil in GWh/a**		2.0	2.5	3.1	1.8	**2.2**
Energy consumption per metric ton of output [3] **in MWh/a**		7.8	7.5	6.2	4.7	**4.7**
Water input in m³		454,771	422,365	392,733	377,196	**389,278**
– **Sanitary water consumed in percent**		56.0	54.8	53.5	58.8	**60.9**
Product outputs: Sheetfed in mt		44,504	51,759	60,429	79,247	**81,806**
– **Number of printing units**		9,601	10,854	11,694	12,877	**13,073**
Product outputs: Prepress in mt		–	–	–	602	**649**
Product outputs: Postpress [4] **in mt**		5,787	6,115	8,232	8,771	**8,167**
Product outputs of the Gallus sites (printing and finishing units)		–	–	1,175	1,338	**1,358**
Emissions in thou. mt	**CO_2** [5]	216.8	196.2	199.0	203.0	**141.0**
	SO_2	0.14	0.11	0.11	0.12	**0.06**
	NO_x	0.27	0.18	0.21	0.19	**0.12**
Emissions in mt	**VOCs**	182.4	146.1	149.0	161.0	**173.0**
Emissions in mt	**Dust** [6]	11.0	10.3	10.3	10.3	**10.3**
Waste in mt		43,338	42,996	52,248	57,429	**59,174**
– **Recycled in mt**		39,543	39,697	48,003	53,873	**55,645**
– **Disposed of in mt**		3,766	3,299	4,245	3,556	**3,529**
Waste recycling rate in percent		91.3	92.3	91.9	93.8	**94.0**
Waste per metric ton of output in mt		0.70	0.74	0.75	0.64	**0.64**
Wastewater in m³		326,116	288,987	271,072	268,856	**279,455**

1) The environmental data provided here is for the 2006 calendar year

2) The site in Weiden (belonging to the Gallus Group) is included from the 2007 calendar year

3) Not including the St. Gallen, Langgöns, Weiden and Eksjö sites

4) Not including output of the Eksjö site

5) The CO_2 emissions given for the last year are considerably lower because, while previously the CO_2 emissions caused by electric power generation were calculated based on the average energy breakdown in each country or German state, since the 2007 calendar year the CO_2 values have been applied that all electric utilities in Germany must now communicate to each site in compliance with new legal requirements. At sites with high electric power consumption, such as Amstetten, the CO_2 emissions are significantly lower than the average because a large share of the electricity comes from renewable energy sources and nuclear power plants. This has a major impact on the total emissions of the Heidelberg Group

6) Dust emissions of the foundry in Amstetten (particularly relevant here)

Contents

THE ENVIRONMENT
Heidelberg is working steadfastly in many areas to make printing-related processes more eco-friendly.

GREEN PRINTING IN PRACTICE
Heidelberg customers around the world are already doing a great deal to help the environment. Examples from the United Kingdom and Canada are presented.

BUSINESS
Heidelberg wants to gain more independence from economic cycles by growing its consumables business.

SOCIAL RESPONSIBILITY
Heidelberg takes the fitness and health of its employees very seriously. A number of programs have been launched to improve them.

A Commitment to Sustainability

"We are convinced that each individual, and all of us together, have responsibility toward the environment and future generations."

Bernhard Schreier, Management Board Chairman

Why is Heidelberg so firmly committed to the principle of sustainability?

BERNHARD SCHREIER: I'd like to make one thing very clear: It's definitely not for marketing reasons. It's because we at Heidelberg are convinced that each individual, and all of us together, have responsibility toward the environment and future generations – and that we must act on it. Increasing numbers of our customers, incidentally, share this conviction and expect us to supply them with solutions for environmentally sound printing.

So for you, sustainability is a synonym for environmental protection?

DR. JÜRGEN RAUTERT: No, not necessarily. Environmental protection is certainly a very important component of sustainability, but not the only aspect involved. We are not just responsible for the environment – we also have responsibility toward our customers, our shareholders, our employees, and society in general. Our approach to sustainability is designed to satisfy the interests of as many of these groups as possible for as long as possible.

What does that mean in concrete terms?

BERNHARD SCHREIER: It means, for example, that at Heidelberg we put enormous energy into pursuing both environmental and economic goals – and, in fact, we have to. We do this by constantly tailoring our actions to the expectations and needs of the market and our customers. This is crucial for ensuring our long-term survival in the marketplace.

Regarding the changes now being made, I'd like to call special attention to our launch of presses and other equipment for very large formats that open up new business prospects for us, among other things in the packaging printing sector. Our decisions in favor of sustainable business also include those to considerably ramp up our consumables business and continue internationalizing our purchasing and production activities.

And amid all this, we don't forget our workforce, either. After all, no strategy can work unless our employees are all well-qualified, motivated, and healthy. Last year we also did quite a bit to promote this.

"To improve the environmental balance of printing, it's crucial to reduce energy consumption, emissions, and waste sheets."

Dr. Jürgen Rautert, member of the Management Board responsible for sales

"Several studies have shown that sustainably operating companies have greater long-term success than others."

Dirk Kaliebe, Chief Financial Officer

Back to the environment. Everyone is talking about green printing these days. How is Heidelberg doing here compared to its competitors?

STEPHAN PLENZ: We can legitimately claim to be in the industry's vanguard where environmental protection is concerned. And this statement applies to the entire value process of a printing press: from its development and manufacture all the way to operation of it. Apart from this, environmental protection has been firmly anchored in our corporate philosophy for over a decade. And in recent years we have given even greater weight to this topic.

How much potential does a print shop have for protecting the environment?

DR. JÜRGEN RAUTERT: Quite a bit! If you look at the processes that take place in a print shop, you'll quickly discover that they impact the environment in diverse ways: by consuming paper, energy, inks and coatings, water, alcohol, and chemicals, to mention just a few. To improve the environmental balance of printing, it's crucial to reduce energy consumption, emissions, and waste sheets.

Where do you see the greatest reduction potentials?

DR. JÜRGEN RAUTERT: Primarily in the amounts of paper, energy, and volatile hydrocarbons consumed. For example, by systematically leveraging our family of Prinect workflow products, you can decrease paper consumption by about five percent. A large share of this comes from cutting down on waste sheets. Our Anicolor short inking unit has the greatest impact in small-format printing: In combination with Print Color Management, it slashes waste sheets in many cases by 90 percent.

Another major drain on resources is energy. Here it's mainly possible to realize savings in connection with press peripherals, which is why we have been steadily improving the energy efficiency of our "Star" product family. We are also far ahead of our competitors in terms of the number of installed presses that operate with reduced alcohol or, in some cases, with none at all.

To what extent do financial analysts and investors base their decisions on whether and how a company practices sustainability?

DIRK KALIEBE: These groups have been showing more and more interest in this aspect for years. Several studies have shown that sustainably operating companies have greater long-term success than others. This is another reason why we're now seeing more mutual funds that only invest in companies that have made a commitment to sustainability.

"We can legitimately claim to be in the industry's vanguard where environmental protection is concerned."

Stephan Plenz, Chief Technology Officer

THE SPEEDMASTER XL 105 AS AN EXAMPLE

Taking the example of a six-color Speedmaster XL 105 with coating unit, Heidelberg has calculated the resources and money that can be saved by systematically taking advantage of all eco-friendly approaches. The conclusion: the costs for materials and operation drop by 210,000 euros a year.

INK AS A RESOURCE

With the InkStar automatic ink supply system, leftover ink in the XL 105 is reduced by up to four percent. In a typical press, this adds up to around two metric tons in the course of a year.

THE RESOURCE OF ENERGY

The use of fast-running, variable-speed turbo radial fans reduces by half the energy required to supply presses with blast air. Only as much is provided as the press actually needs.

Heidelberg Is Promoting "Green Printing"

Heidelberg has been working systematically for years to cut down on resource consumption, emissions, and waste. It has implemented a wide range of measures, affecting not only the use of printing presses but also their development and manufacture.

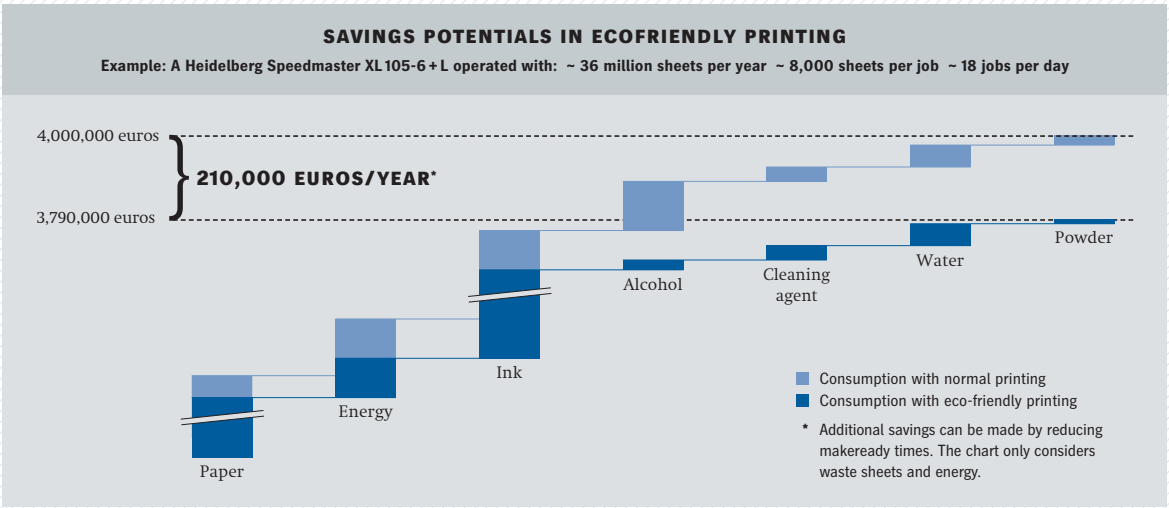
Like no other company in the industry, Heidelberg is committed to offering a comprehensive, consistent, mature, networked portfolio of solutions covering the entire print process. "We are convinced that we can only tangibly ease environmental impacts by taking an integrated approach," says Dr. Jürgen Rautert, until recently the Chief Technology Officer at Heidelberg (he is now the member of the Management Board responsible for sales). This approach addresses all phases in the life cycle of a printing press, beginning with its development and design.

DEVELOPMENT: AN INTRANET-BASED ENVIRONMENTAL PORTAL To drive the development of environmentally friendly printing equipment even more vigorously than in the past, Heidelberg last year cooperated with Darmstadt Technical University to create an intranet-based environmental portal. For example, if a developer is working on an idea for a new inking unit, he can consult a comprehensive database on the portal to learn about the relevant environmental requirements. A second database contains information and expertise on environmental protection that developers have stored there as a kind of encyclopedia of best practices. The portal is intended to ensure that environmental protection considerations are firmly incorporated right from the formative initial stage of the product life cycle.

PRODUCTION: ENVIRONMENTAL MANAGEMENT SYSTEMS INSTALLED AT GERMAN SITES For the manufacture of its presses, Heidelberg attaches great importance to maximizing the energy efficiency and environmental compatibility of its own production processes, and works constantly to improve them. The "maturity" of its environmental management systems at its German sites in Heidelberg, Wiesloch-Walldorf, Amstetten, Brandenburg, and Kiel and their compliance with the generally acknowledged DIN ISO 14001 standard are checked each year by external auditors and documented by certificates. Heidelberg has also appointed environmental officers at all of its production and development sites.

The sites record a large number of environmental statistics, including the consumption of electric power, gas, and water and the amounts of waste produced. This data is regularly assessed both internally and externally. Once a year, a management review also takes place to evaluate these matters and discuss possibilities for making further improvements and realizing additional savings. It is conspicuous that the environmental indicators of various Heidelberg sites have improved significantly in recent years despite considerable increases in production volumes. Suppliers are also involved in the consistent practice of this environmental philosophy at all sites; they are obliged to comply with environmental standards similar to Heidelberg's own and support the company in implementing its environmental strategy.

THE PRINT PROCESS: NUMEROUS OPPORTUNITIES TO MAKE IMPROVEMENTS, AND NOT JUST IN CONNECTION WITH PAPER AND ENERGY The actual print process consumes a whole plethora of different ▸



resources: paper, energy, and ink, but also coatings, alcohol, cleaning agents, water, and powder. It is also impossible to avoid printing a certain number of waste sheets when starting each print run, which are disposed of as used paper. Or to prevent part of the alcohol used in the dampening solution from evaporating and dispersing in the air of the pressroom. Or to entirely prevent part of the powder used to keep the freshly printed sheets from sticking together in the delivery pile from finding its way into the air as dust.

Heidelberg has systematically studied all of the ways in which resources are consumed and contaminants emitted, and set itself the goal of optimizing every single one of these factors. Currently, the company has a list of over 50 different aspects it is working on. Taken together, the many technical solutions it is implementing in its printing presses go a long way toward allowing print shops to practice more eco-friendly production while saving money at the same time. To illustrate the potential savings, Heidelberg has calculated what this means on a large-format six-color Speedmaster XL 105 with coating unit. A production volume of 18 jobs a day and 8,000 sheets per job is assumed, which adds up to 36 million sheets a year.

The savings are most evident where paper consumption is concerned. Here Heidelberg offers no fewer than two major innovations: the Prinect workflow product family and – for small format –

THE RESOURCE OF PAPER

More paper is consumed in printing than any other resource. There is considerable potential for realizing savings here. The Anicolor short inking unit and Print Color Management slash startup waste in many cases to only ten percent of the usual amount.

the Anicolor short inking unit. The combined use of three Prinect products – Prepress Interface, Color Assistant, and Inpress Control – with a typical press can eliminate as many as 1.8 million waste sheets per year, or five percent of the total required paper. This translates into 200 metric tons less CO_2 being emitted into the earth's atmosphere. It is in the small A3 format that Anicolor enables the greatest savings: Used in conjunction with Print Color Management, in many cases it cuts startup waste by about 90 percent.

The next-largest block of resources required in the print process, after paper, is energy (see also the article "Less Electric Power, Less CO_2, Reduced Energy Costs" on page 10). Here there is especially great potential for savings in press peripherals such as the products of Heidelberg's "Star" family, which are being continually improved.

Where the resource of "ink" is concerned, use of the InkStar automatic ink supply system reduces leftover, unusable residues, and thus total consumption, by up to four percent. In the example calculation for a Speedmaster XL 105, this amounts to two metric tons per year. Also significant are the reduced environmental impacts resulting from lower concentrations of volatile isopropyl alcohol in the dampening solution.

Tangible improvements have also been made in connection with the dampening solution and powder. The use of enhanced filter systems slashes the amount of soiled dampening solution requiring disposal by about three-quarters. The PowderStar AP 500 and AP 500 Duo apply powder much more efficiently to the printed sheets, so that only about half as much is needed to get the same effect.

THE WINNERS: THE ENVIRONMENT AND CUSTOMERS At the end of the day, the reductions in consumption benefit not only the environment, but to an equivalent extent also the bottom line of printing companies: Adding up all of the potential savings that can be realized on the six-color Speedmaster XL 105 in the example calculation, the print shop will save over five percent of its operating costs each year or around 210,000 euros. And this only takes materials into account, without factoring the resulting boost in output, the reduction in operator workload, or faster makereadies into the equation.

These savings not only positively impact a printing company's profits, but also polish its market image. Looking ahead, large print buyers in particular will be basing their choices of service providers to a significantly greater extent on how seriously these take environmental protection. "Environmentally friendly production is not only necessary but also makes good business sense, considering that print buyers are increasingly insisting on it," says Dr. Jürgen Rautert, the member of Heidelberg's Management Board responsible for sales. ■

THE RESOURCE OF POWDER

To prevent freshly printed sheets from sticking together in the delivery pile, they are dusted with fine powder at the end of the print process. Heidelberg's PowderStar AP 500 and AP 500 Duo do this much more efficiently, achieving the same result with only half as much powder as before.

Environmental Protection at Heidelberg's Sites

Environmental Protection has been firmly anchored in Heidelberg's corporate principles since 1992. In 2006, the first Balanced Scorecard was developed with measures designed to protect the environment. It defines Heidelberg's environmental goals through the year 2010.

The Wiesloch-Walldorf site

THE EXAMPLE OF WIESLOCH-WALLDORF: Heidelberg's largest site has a long tradition of attaching high priority to recycling waste. Yet last year it succeeded in once again improving its recycling rate: to 99.4 percent. This was made possible by the fact that construction scrap and rubble are now also being reused. With rising prices for raw materials such as paper and metal, the site's waste management activities actually generated a net profit of over 700,000 euros – nearly twice the previous year's figure. Worldwide, Heidelberg's production sites boast an average recycling rate of 94 percent.

The Brandenburg site

THE EXAMPLE OF BRANDENBURG: The Brandenburg site stocks a total of 180 cubic meters of cooling lubricants for machining and grinding of tools, storing them in two large containers. To prevent yeasts and bacteria in these lubricants from infecting employees and plugging pipes, biocides are added. Improved management in the form of regular determination of germination indexes and precise dosing of the biocides based on the results generated a saving of about 20 percent last year, equivalent to 2,000 liters.

The Leipzig site

THE EXAMPLE OF LEIPZIG: For several months now, solvent-containing sludge produced by the coating operation has been separated into solvent-free coating sludge and solvent. The sludge thus no longer needs to be declared as hazardous waste for disposal and transported as such. At the same time, the regeneration and reuse of the isolated solvents has reduced emissions of volatile organic compounds (VOCs) by about 20 percent. The decreased disposal costs now also save Heidelberg some 4,000 euros a year.

Ulrich Hoffmann is responsible for workplace safety and environmental protection at the Brandenburg plant.

CONTINUAL IMPROVEMENT PROCESS Sixteen years ago, Heidelberg literally stamped a new plant out of the ground in Brandenburg in eastern Germany. Since that time, the site has also had a full-time staff member who is responsible for workplace safety and environmental protection: Ulrich Hoffmann. A native of Brandenburg and now 55 years old, Hoffmann has a degree in chemistry and used to work for the railways in the old German Democratic Republic (East Germany). "But I'm not the type to hide behind instruments in a lab," he says, to explain his reasons for switching to Heidelberg. He wants to seize the bull by the horns, and that is exactly what he has done. He was involved virtually from day one in initiating and establishing environmental protection activities back in the early 1990s.

One of his first challenges was designing a system for purifying the wastewater that inevitably results from the metalworking operations. The Brandenburg plant, which employs over 800 staff, has 250 machine tools that are used to make around 9,000 different parts for printing presses. The treatment of oil-contaminated wastewater is still a major part of Hoffmann's work. "The permissible concentrations are very low here," he explains. Each year the site is obliged to purify some 1,700 metric tons of wastewater to the point that it can be discharged without any risk into the sewage system. "It's a process of continual improvement," says Hoffmann. Every time a cleaning agent or cooling lubricant is changed, this has direct repercussions on the "quality" of the wastewater and how it is treated. Heidelberg also has official permission to treat wastewater from other companies in the area.

Hoffmann devotes about half of his working hours to environmental protection and the rest to workplace safety. "Although it's impossible to completely separate the two," he adds, citing by way of example the handling and transport of hazardous substances. Similar statements apply to compliance with the European Union's REACH regulation on the manufacture and storage of chemicals, which is currently keeping him quite busy. In Brandenburg alone, some 350 different substances have to be examined to determine their composition and potential hazards. In this and other areas, Hoffmann works closely with his counterparts at other Heidelberg sites. Each of them have their particular specialties, he says, and there is no point in continually reinventing the wheel. His core tasks in the environmental sector also include waste disposal and recycling and liaising with the authorities.

Hoffmann has a firm personal commitment to helping the environment, or otherwise he would not be able to do his job with conviction. The father of two rides his bicycle to work from his home five kilometers away, "unless it happens to be raining." And for recreation, he loves to busy himself outdoors, describing himself as a "fanatical hobby gardener." With a smile he adds that "we meet practically all of our own needs for fruit and vegetables all summer long." Last summer he harvested 350 kilos of apples alone.

Less Electric Power, Less CO_2, Reduced Energy Costs

There are many ways to save energy when operating a sheetfed offset printing press. But no other manufacturer takes advantage of them as comprehensively and systematically as Heidelberg.

AN INTEGRATED APPROACH
Dryers, cooling systems, drive motors, air compressors – there are many opportunities to reduce the energy consumption of a printing press. Heidelberg takes advantage of them.

There is no getting around it: printing presses use up a lot of energy, and large presses even more. A six-color Heidelberg Speedmaster XL 105 with coating unit consumes – without technical enhancements – up to 560,000 kilowatt-hours of power to produce 36 million printed and coated sheets over the course of a year. But Heidelberg is working harder than any other company serving the industry to systematically reduce the energy consumption of every individual component of its sheetfed offset presses.

Take dryers: They account for 35 percent of the total, making them the single largest power drain. Drying is done with infrared radiation and hot air. "You have to imagine an IR dryer as a kind of sunlamp," explains Eike Frühbrodt, Heidelberg's product manager for peripherals. "The closer a source of infrared light gets to your skin, the stronger its effect." In the case of a printing press, this means: Reducing the distance between the paper and the dryer drives moisture faster and better out of the printed sheets.

Dry or not? The DryingMonitor provides valuable information to help save energy in the drying process.

SIGNIFICANTLY CLOSER THAN THE COMPETITION Heidelberg has succeeded in placing the dryer two centimeters closer to the sheet. Each centimeter saves about five percent of the energy consumed. Altogether, Heidelberg has reduced the distance between the dryer and the sheet to five centimeters less than in competing makes of equipment. This yields correspondingly great reductions in energy consumption – an excellent example of the company's technology leadership. The distance is also important with hot air: each additional centimeter means that the air is stirred up more readily and less of it reaches the sheet. The effects are even greater when drying with UV radiation: here each centimeter less translates into up to ten percent less power consumed. In its series for the large A1 format, Heidelberg has also turned the trick of bringing the dryer and sheet two centimeters closer together.

Additional energy savings can be expected with the aid of the new "DryingMonitor," which was unveiled at this year's drupa trade show in Düsseldorf for use with the Speedmaster XL 105. Its sensors measure how much air carrying how much moisture flows into the dryer and out again. These two parameters can then be used to tell whether the sheet is really dry or not. For the first time, this gives the press operator a practical guide for controlling the drying process.

A very energy-efficient innovation also supports UV drying: an electronic ballast helps maintain the arc of each UV lamp while it is in standby mode, while still reducing power consumption by between five and ten percent. This permits much more energy-efficient operation of the lamps than with conventional transformer technology.

WATER INSTEAD OF AIR COOLING To take advantage of waste heat, Heidelberg is also taking a new, energy-efficient approach that is unique in the industry: it is offering nearly all of its presses with water cooling instead of air cooling. Because water conducts heat very well, this type of system is considerably more efficient and cost-effective than conventional air cooling. Some Heidelberg customers are already using the waste heat stored in the cooling water, via heat exchangers, to heat single rooms or even an entire office building.

The second-biggest energy consumer in an offset printing press is the main drive motor, which eats up about one-quarter of the total power used. For technical reasons there is less latitude for realizing savings here, but Heidelberg has also found a way to make a difference: Its developers and engineers are incorporating "sine synchronous" motors that are two to three percent more efficient than conventional motors.

Heidelberg has also achieved significantly pared energy consumption for supplying presses with blast air, which is mainly needed for largely contactless sheet transport on air cushions. This accounts for about 20 percent of the total energy it takes to run a press. Fast-running, variable-speed turbo radial fans output the same amount of air while consuming up to 50 percent less power than earlier models. And because the supplied air is up to 30 degrees Celsius cooler, substantially less waste heat subsequently needs to be removed from the pressroom. (This aspect is also covered in detail in the 2006/2007 Sustainability Report, on page 16.)

Adding up all of the improvements for saving energy, the power consumption of a Speedmaster XL 105 can be cut by about 20 percent, or 120,000 kilowatt-hours, per year. This means that 62 metric tons less CO_2 is emitted into the atmosphere – as much as six hectares of deciduous forest can absorb in a year. ■

With conventional drying, the dryer is moved 2 centimeters closer to the sheet.

Each centimeter yields an energy saving of about 5%.

Heidelberg has moved the dryer and sheet at least 5 centimeters closer together than any of its competitors.

The Environment: News

HEIDELBERG RECEIVES ENVIRONMENTAL AWARD IN CANADA

In April 2008 the Canadian trade journal "Print Action" honored Heidelberg with its environmental award for the "Most Progressive Environmental Process." Above all, the journal praised Heidelberg for taking an integrated, holistic approach to environmental protection and taking account of environmental aspects at all stages of the press life cycle, from development across manufacture to operation. "Print Action" bestows awards in various categories, among other things for progressive environmental technologies and processes and for community environmental involvement. In the "most environmentally progressive printers in Canada (100-plus employees)" category, "Hemlock Printers" and "The Lowe Martin Group" received gold and silver, respectively. Both printing companies use Heidelberg presses. This was the third year in a row that Hemlock Printers received one of these prestigious environmental awards.

FSC CERTIFICATION FOR PRINT MEDIA CENTER

Heidelberg was the very first printing press manufacturer to be certified as compliant with the globally acknowledged FSC standard, for its Print Media Center. Products bearing the FSC seal of quality are guaranteed to use only wood and paper from environmentally and socially responsible production. The Print Media Center is Heidelberg's demonstration facility for sheetfed offset presses, prepress systems and postpress equipment. The center at Heidelberg's headquarters consumes about 800 metric tons of paper each year. The demonstrations conducted in Heidelberg's halls at this year's drupa were also predominantly FSC-certified.

TEN-COLOR PRESS WITH ANICOLOR

In September 2007 Heidelberg presented a ten-color Speedmaster SM 52 perfector with the Anicolor short inking unit. This press combines the advantages of printing the front and back of the sheet in one pass with those of Anicolor, namely up to 90 percent less startup waste. Depending on the job, the OK sheet can be attained after 40 sheets, which makes a significant contribution to conserving resources and preventing global warming.

HEIDELBERG PROMOTES CLIMATE-NEUTRAL PRINTING

Print production is necessarily associated with direct and indirect emissions of the greenhouse gas CO_2. Now more than 50 Heidelberg customers are compensating for this with appropriate action to protect the world's climate, for instance by supporting renewable energy projects. Heidelberg is supporting the climate initiative of the German Printing and Media Industries Federation (BVDM), which has released a CO_2 calculator for working out the CO_2 emissions caused by any print product. The tool is available for use free of charge by companies belonging to BVDM.

Steady Business

In the past, sales of consumables for printers only played a relatively unimportant role for Heidelberg. This is about to change: Over the next few years, the company intends to double its sales in this segment.

It takes more than presses and other equipment to print. Above all, of course, you need paper, ink, and coatings, but you will not get far without printing plates, offset blankets, inking and dampening rollers, various chemicals, for instance for preparing dampening solution, and a range of washing and cleaning agents, either. Not counting the paper, last year print shops around the world spent over six billion euros on these consumables. More than 80 percent of this volume was accounted for by inks and plates. Heidelberg has been active in this segment for about a decade, mainly as a distributor. Its sales reached 270 million euros in the last financial year, with a market share of just over four percent. Over the years ahead, the company plans to double its sales of consumables past the half-a-billion-euro mark.

This increase is to be driven mainly by Heidelberg's "3S" strategy: the company has set itself the medium-term target of having spare parts, consulting and maintenance services, and supplies (i.e., consumables) contribute one-quarter of its ▸

Saphira consumables: wrappers, binding wire, inks.

total sales. Currently they account for just under 20 percent. The real goal of this strategy is to partly smooth out fluctuations in customers' willingness to invest in presses and finishing systems as a result of economic cycles. Even during general economic downturns, sales of consumables remain fairly steady, with fluctuations that are much less pronounced. This was the case, for example, in the years 2001 to 2003 after the dot.com bubble burst: although advertising expenditures and, as a knock-down effect, investments in production equipment plummeted by a third, the printing industry's consumption of paper and ink actually rose by five percent during that period. And this steady, almost linear increase is still going on today.

GROWING NEED FOR PRINTING PLATES Printing plates now account for 60 percent of Heidelberg's consumables sales. Last year, an estimated 600 million square meters of plates were needed for offset printing – the equivalent of 90,000 soccer fields. And the demand for plates is growing steadily at rates of five to ten percent a year. The reason is that print runs are getting shorter, so that print shops are handling a larger number of jobs without any change in their workload. Print buyers are also clamoring for more colors and inline finishing effects with coatings – and all of these trends are driving the demand for plates higher.

As a distributor of these products, Heidelberg is mainly interested in having small and mid-sized printing companies as customers – in other words, print shops that required up to 20,000 square meters of plates a year. This group is also the largest in the print media industry. "The producers regard these print shops as too small for their sales organizations to directly serve and supply," explains Harry Wessel, who is responsible for Heidelberg's consumables business.

HEIDELBERG'S COMPREHENSIVE EXPERTISE

"Small and medium-sized customers prefer to order their consumables from a single supplier," adds Wessel's colleague, Thomas Fischer. So why should they not get them from Heidelberg? After all, these customers, more perhaps than others, stand to benefit from the extensive experience with the use of consumables that Heidelberg accumulates daily in its research and development laboratories, in its demonstration print shops around the world, and under practical conditions in field tests and at concept customers, before evaluating this information and making the resulting expertise available to customers via the application specialists of its sales organization. For the market-leading producer of sheetfed offset equipment with its strong global sales organization and resulting close ties to print shops, this generates attractive

Saphira consumables: roll of cleaning cloth, ink form roller, offset blanket, coating, CtP plates.

business opportunities. “For sales of plates, we are relying on organic growth,” says Wessel.

The situation is different with inks and coatings, which are sold worldwide to the tune of between 2.5 and 3 billion euros a year. With a current volume of just 28 million euros, Heidelberg sees considerable growth potential in this segment. However, the only way for it to increase its sales volume quickly is to buy up established businesses. Several small distributors were already acquired in Canada around the turn of the millennium, and the company now plans to apply this strategy more forcefully. In late 2007 Heidelberg took over the Danish and Swedish sales operation of Stielund & Taekker, which is regarded as Scandinavia’s largest consumables vendor.

COOPERATION IN SALES Talks are also ongoing with producers of inks and coatings about possibilities for establishing sales alliances. “There is quite a bit of interest in this, especially outside of Germany,” says Fischer. “We have the same customers, the same interests, and the same sales and distribution structures. So why shouldn’t we team up to use them jointly?” To optimize print quality, press and ink producers need to collaborate more closely in any case, he stresses.

Heidelberg is highlighting its significantly stronger focus on selling consumables with the globally employed “Saphira” brand name. Both Wessel and Fischer are emphatic in stating that “our customers can be sure that any product bearing this name has been tested and found good by Heidelberg.” The company now sells around 5,000 different consumable products around the globe.

HARMONIZED PACKAGE SOLUTIONS “Saphira Performance Kits” give Heidelberg customers yet another way to improve print quality and system performance. These are complete packages of consumables developed for specific Heidelberg technologies and applications. Their components – offset blankets, rollers, dampening solution, inks, etc. – are designed, selected, and validated to ensure that they harmonize well with one another and the targeted press applications. By utilizing them, Heidelberg customers can produce predictable results, cut down on make-ready times and waste sheets, and boost output. They also benefit the environment in many ways. Heidelberg expects that its strategy of expanding its consumables business, this being immune to economic cycles, will generate additional press sales as well. “Not every press customer also buys consumables from us,” explains Wessel, “nor does every one of our consumables customers print on Heidelberg equipment.” So both segments stand to gain from the resulting synergies. ■

Green, Greener, Greenest

The environmental concept of Fulmar Colour Printing in England dovetails perfectly with the market's expectations, meeting customers' demands while actually doing something to help the environment.

You will search in vain for roofs planted with vegetation, solar panels, or a minipark with biotope and croaking frogs at 108 Beddington Lane in Croydon, Surrey (England). On the outside, at least, nothing visibly distinguishes the facility of Fulmar Colour Printing from the purpose-built industrial buildings surrounding it. And once inside, the same impression continues. Somehow, one expects a "green" print shop to look different. Yet this company in the south of London, less than 20 minutes by train from Tower Bridge, is nevertheless a model of eco-friendly printing at the vanguard of the British graphic arts industry. What counts here are the "inner values" it embodies, not the esthetics of its appearance.

Fulmar Colour Printing is a midsized company with close to 50 employees and annual sales of over 9 million pounds, which works out to about 12 million euros. Completely equipped with Heidelberg presses, it belongs to a small printing conglomerate that operates four other companies on the same premises. In all, the Fulmar Group employs 420 people, who together generated sales of 42 million pounds or

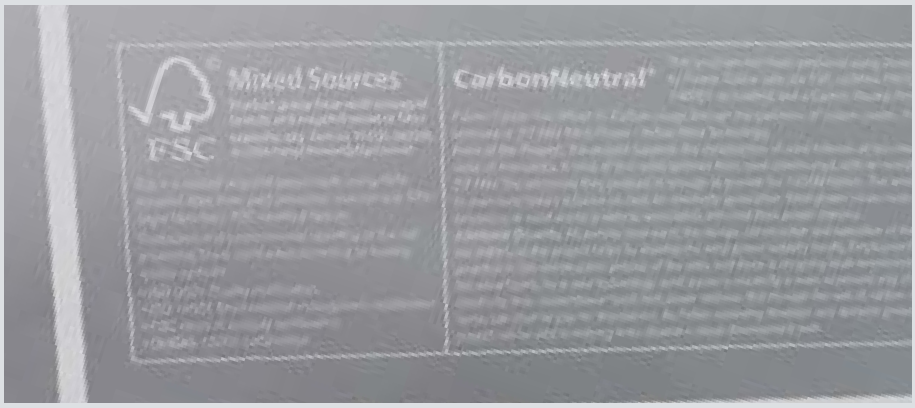
ACTING OUT OF CONVICTION
Managing director Keith Marley (left) and plant manager David Copson are on the same wavelength: "We have got to do something for the environment" is their shared conviction.

53 million euros in 2007. Two years ago the group became part of CPI, a French printing enterprise. Fulmar Colour Print is the family member that specializes in classic offset commercial printing.

Its customer base comprises around 300 companies, most of which are located in Greater London – with a population of over seven million, one of Europe's largest metropolitan areas. Real estate development companies are one of their main sources of business; these clients insist on top quality in the brochures and exposés they order for their projects, many of which represent umpteen-million-pound investments. "These customers want appropriately exclusive advertising for their exclusive properties," explains managing director Keith Marley. And over the years, Fulmar Colour Printing has acquired an excellent reputation in this field.

NO PRESSURE FROM LAWMAKERS Although he does not belong to any political party, works director David Copson describes himself as having a "latent green orientation." Since joining Fulmar eight years ago, his conviction has grown that "we have to do something for the environment." Especially in an industry that so far has not exactly had a reputation for environmental friendliness in Britain. David Copson, 44, is not the type that likes to jump onto a bandwagon and then loudly trumpet what he has done. Rather, he is the quiet, efficient sort: one who acts from inner conviction and could be described as a realistic evolutionary instead of an ideological revolutionary. Copson's environmental ideas met with open ears when he approached Keith Marley, who simply nodded and replied, "Yes, we have got to do something." There were no legal pressures to take action; the environmental rules for British print shops are still fairly lenient compared to Switzerland or Germany, for example. "But this may change someday," says Marley. His aim is to be proactive and anticipate future requirements.

The more Marley and Copson made the entire operation greener, the more convinced they were of being on the right track. For three ▸



reasons: They were reducing environmental burdens, which gave them a good feeling. They were saving quite a bit of money in some areas, despite the required investments. And they had the right answers when customers asked, as they were doing more and more often, how Fulmar was helping to save the planet. Which is quite a bit: Certification of the company's environmental management system as ISO 14001 compliant and accreditation from the Forest Stewardship Council (FSC) and the Program for the Endorsement of Forest Certification Schemes (PEFC) are just the tip of the iceberg.

Tackling the challenge with commitment: David Copson and his staff.

CO_2-NEUTRAL OPERATION Fulmar is one of only a few companies in the country that practice CO_2-neutral printing. What this means is that it adds up and financially compensates for the total emissions of carbon dioxide it directly or indirectly causes. The calculation includes not only carbon dioxide released by equipment, but also that emitted in connection with the manufacture of paper and ink, transport of print products to customers, and staff commuting between home and work. To offset its total CO_2 emissions, Fulmar pays the equivalent of about 50,000 euros each year for certifications and to the organization "The Carbon Neutral Company" to help fund projects devoted to developing renewable energy sources in developing and newly industrializing countries.

Marley and Copson were pleasantly surprised when the company was first certified under ISO 14001 18 months ago. "We learned that we had already made considerable progress toward protecting the environment," they say. Isopropyl alcohol started to be eliminated from the dampening solution back in 2004. Looking back, they describe their learning curve, which lasted several years, as a process of "trial and error." Copson experimented with substituting new additives for alcohol in the dampening solution, increased the temperature of the damp additive by over two degrees Celsius, replaced a number of inks, and made various other adjustments. The success of these efforts has been tangible: since 2007, all of the company's presses have been running without any alcohol at all. "And our printing work is noticeably more brilliant into the bargain," adds Copson proudly.

To make the switch, staff had to be convinced of the potential benefits, he recalls. “The important thing was to prevent them from immediately attributing every printing problem that arose to the lack of alcohol. Working without it naturally means tighter tolerances – but that also helps us improve our processes and thus also our quality.” The cost situation has also improved: By dispensing with alcohol, Fulmar Colour Printing saves nearly 20,000 euros a year.

EXTENSIVE CATALOG OF MEASURES But printing without alcohol is just one of the many measures the company has implemented to better its environmental balance. Fulmar has invested the equivalent of around 125,000 euros in a closed recycling system that processes and reuses 90 percent of the solvents for the washup systems. After the water has been purified by extracting the solvents, it can be channeled into the sewage system without problem. The water for dampening is continuously cleaned by special filters, and thanks to the installation of a UV water treatment system there is no need to add biocides to the solution.

Whenever possible, Fulmar also uses inks made from vegetable oils instead of mineral oils. To prevent printed sheets from sticking together, the company relies on high-quality powder. This cuts down on dust and improves working conditions in the pressroom. Ink residues are not simply disposed of; instead, they are mixed to create new colors in a small lab equipped with a spectrometer. These are primarily used as house colors or for jobs that do not require top-quality colors.

INVESTING IN THE ENVIRONMENT
Fulmar has installed a closed recycling system to the tune of 125,000 euros. It permits conditioning and reuse of 90 percent of the solvents for the washup systems.

Also routine at Fulmar is that its operators reuse waste sheets several times for press makeready. Fulmar also saves paper with a software program that estimates how many sheets, including waste, will presumably be required for a job. More than that is not ordered – which yields additional benefits for the environment and the company's bottom line. Finally, the flagships in the pressroom, two Speedmaster 102 presses with 12 printing units each, are cooled with water instead of air and therefore consume significantly less energy.

"We naturally also leverage our environmental approach as a sales argument," explains Marley. "But we're not primarily concerned about sales. We're simply proud of all that we have accomplished in the way of environmental protection." Many of the suggestions for improvement, incidentally, came not from management, but from the operators themselves. "This is good," says Copson. "When our staff identify with changes, these are much easier to make." ■

INK RECYCLING
Instead of disposing of leftover ink, Fulmar mixes it into new colors in a small lab equipped with a spectrometer.

Olympic-Standard Environmental Protection

For over 20 years, Hemlock Printers in Vancouver has been practicing environmentally friendly printing. And in recent years, the Canadian company has redoubled its exemplary efforts.

If you like nature, you will love Vancouver. This city on the Pacific with a population of over two million is located on a peninsula, the tip of which contains a largely natural park covering four square kilometers. Its northern districts nestle against coastal ranges of mountains, which reach heights of 1,500 meters just a few kilometers behind the city. There is still enough snow there to ski in mid-May, while down below the beaches already beckon swimmers or at least sunbathers. In 2010 at the latest, the world will get a closer look at Vancouver and its

environs, when the 21st Winter Olympics take place there in the southwestern corner of Canada.

When the weather is clear, Dick Kouwenhoven can see the coastal mountains from his office. Now 66, he emigrated to Canada from the Netherlands as a young man and found work as the first and only employee of a small print shop called Hemlock. Before long, he took the helm of the company, which today employs 240 and has annual sales of about 40 million Canadian dollars (roughly 26 million euros). It was also recently singled out for the third year in a row as the "Most Environmentally Progressive Printer in Canada." This country in the northern hemisphere is nearly as large as Europe but only has half as many inhabitants as Italy. Under these conditions, nature almost automatically plays a huge role. Kouwenhoven's heritage, combined with West Coast environmental awareness, led him onto a path of social and environmental responsibility.

Hemlock is also the name of a genus of conifers common on Canada's west coast.

PRINTING WITHOUT ALCOHOL FOR TWO DECADES Sooner than most other Canadian printing companies, Hemlock started using recycled paper and inks based on vegetable instead of mineral oils. And at a time when printing without isopropyl alcohol in the dampening solution was still inconceivable for most, Kouwenhoven and his long-time managing director, Jeff Taylor, began experimenting with eco-friendly alternatives back in the mid-1980s. "We've definitely played a pioneering role in Canada," they say with satisfaction. However, they also stress that the switch was a very "painful learning process"; everything had to fit, including the right substitute, the right concentration, the right temperature, and water of consistent quality. After much trial and error, they finally found the right combination and Kouwenhoven was convinced that it was possible to print, and indeed quite well, without alcohol – so well, in fact, that print quality ultimately even improved. Both of the Hemlock veterans add that they received considerable support from Heidelberg and its suppliers during the learning process. In its core business, offset printing, the company relies entirely on Heidelberg equipment. All of its presses print without alcohol, including three Speedmaster

SM 102s, a Speedmaster CD 74, a Speedmaster SM 52 and two Printmaster QM 46-2s. In all, there are 40 printing units installed in the pressroom.

Where both inks and dampening solution are concerned, the company has worked consistently to ban environmentally harmful hydrocarbons (i.e., volatile organic compounds or VOCs) from the print shop. "We used to employ inks containing up to 24 percent VOCs," reports Taylor, "but today the figure is only 3 percent – without sacrificing anything in the way of print quality." With regard to ink consumption, a computer program now calculates how much will be required to complete each print job. Leftover ink is not disposed of; instead it is professionally mixed in the company's own lab to create new custom colors. Special software determines the best formulation to combine virgin materials with leftover ink. Nearly a metric ton of ink is recycled each year in this way. "We invested a few hundred dollars in the program and are now saving thousands," says Taylor. At the end of the day, the focus is always on protecting the environment, he stresses. But if Hemlock saves money at the same time, so much the better…

IN-HOUSE SUSTAINABILITY COMMITTEE In 2004, Hemlock made yet another leap forward by creating a "Sustainability Committee" comprising over a dozen of the company's managers. It focuses on identifying practicable ideas for improving environmental awareness and sustainability at Hemlock.

The committee is not expected to launch a steady stream of environmental revolutions, but it does find many ways to improve the details of the print process – as well as ideas such as setting up a collection point for used electrical and electronic appliances and equipment. Since the launch of Hemlock's "Techno Trash" initiative, the company's staff have been constantly depositing irreparable TV sets, PCs, printers, VCRs, cell phones, and batteries in a small storage area. More amazing is that the company's top managers are not opposed to personally inspecting the solid waste bins to ensure everything is where it belongs. These "dumpster dives," as the company's management calls them, have resulted in dramatic reductions in solid waste disposal.

INK SAVED BY COMPUTER
Hemlock is especially conservation-minded when it comes to ink. A computer program calculates how much is needed for each print job. Leftovers are mixed to create new colors, also aided by software.

Turning old into new: a Hemlock employee mixing inks in the lab.

GRASSROOTS APPROACH
Hemlock does not take a top-down approach to environmental protection. Many of the ideas for making improvements in this eco-friendly printing company come from its staff.

The company has also been working since 2004 with the globally acknowledged FSC (Forest Stewardship Council) seal. Today about 60 percent of the paper used by Hemlock comes from responsibly managed forests, and the share is rapidly increasing. "Just a year ago the figure was only 40 percent," says Taylor. Hemlock is aggressively offering environmentally sound paper to its 1,500 customers in Canada and the United States, and the demand for it is growing fast.

A globally acknowledged eco-seal: from the Forest Stewardship Council (FSC).

FSC SOON TO BE STANDARD Companies that are directly or indirectly involved with nature are especially likely to value having the FSC seal on their print products. This includes operators of local hydroelectric plants as well as The Northface, a well-known vendor of outdoor gear. Plus, Kouwenhoven and Taylor estimate that approximately ten percent of their output consists of printed sheets made entirely from recycled FSC paper. Hemlock's next project will be to move towards CO_2-neutral printing. "We'll achieve it within one or two years," they say with conviction, while adding that "we would rather reduce environmental burdens here on-site than invest in renewable energy projects elsewhere."

Hemlock has also already held several "Eco-Printing Infoforums" in Vancouver. At these events, experts from all over North America explained to over 200 print buyers and print shop representatives how to lessen the environmental impact of the print process. "We wanted to make a convincing case for environmental protection throughout Canada's graphic arts industry," says Kouwenhoven about their idea to launch this platform. They are not afraid of attracting competition.

CONSISTENT ENVIRONMENTAL LEADERSHIP Such comprehensive, consistent commitment to environmental protection is still rare in the graphic arts industry, and not just in North America. So it is no wonder that "PrintAction Magazine" has distinguished Hemlock as "Canada's greenest

printing company" for three years running. "We never would have thought that we'd qualify three times in a row," says Taylor. "But it shows that we haven't stood still in the face of the growing competition." He is particularly happy about this. Nor is the "Most Environmentally Progressive Printer" the only environmental award that Hemlock has pocketed in the last 12 months. Kouwenhoven and Taylor have also received the "Canadian Manufacturers and Exporters BC Award for Sustainability" and the "Capital Regional Districts 2007 Eco Star Award for Corporate Sustainable Responsibility."

Even the Vancouver Organizing Committee for the 2010 Winter Olympic and Paralympic Games has gotten wind of how environmentally friendly Hemlock prints, and appointed the company to be one of the two official sheetfed printers for the upcoming Winter Games in 2010. "Environmental criteria played a major role in their choice," says Kouwenhoven. Considering all Hemlock has already done in the name of eco-friendly printing, it definitely deserves to win a virtual green gold medal. ■

GROWING PRESSURE
Including regional hydroelectric plants and global sellers of outdoor gear, more and more print buyers everywhere expect their suppliers to be certified according to standards like the FSC. This is also an important criterion for the 2010 Winter Olympic Games in Vancouver.

“Much More than Expected”

What can printers expect from Heidelberg for green printing? A special ECO Tour at the drupa trade show provided a detailed answer to this question. Visitors from outside Germany were especially interested in the tour.

“Very, very good,” commented John Calkins spontaneously after the tour, which lasted well over an hour. He said it had helped him greatly – he had not dreamed that Heidelberg is addressing eco-friendly printing on such a broad front. “Heidelberg is already way ahead of other press manufacturers,” the product developer at the company of MasterTag in Montague, Michigan, stressed. Christopher Bergau of Druckagentur Kommpoint in Berlin shared his view: “What impressed me the most was being shown that environmentally friendly approaches can definitely also help improve press efficiency,” he stated, saying that it was a pleasant surprise – he had always thought that the two aims were mutually exclusive, and that green printing was too costly in any case. “Now I see that this isn’t necessarily true,” he remarked after the tour.

Calkins and Bergau were in the first group taken on the over one-hour ECO Tour at drupa. The trip through Heidelberg’s world of environmentally friendly printing was offered more than 20 times during the course of the two-week “industry Olympics” – in the mornings in German,

in the afternoons in English. In all, over 100 interested persons participated. “I just wanted to see what press manufacturers are doing these days to promote green printing,” said Bergau when asked why he signed up for the tour.

INCREASING PRESSURE FROM CUSTOMERS Kommpoint’s customers include a major maker of sporting goods that recently launched a “green” product line. “For image reasons, they naturally also wanted their advertising materials to be printed with sustainable processes,” says Bergau. Calkins also confirms that customers are now increasingly insisting on eco-friendly printing. For example, his employer, MasterTag, prints the plastic tags that one often finds on plants sold at nurseries. Green for green – that is what is expected today.

At drupa, Heidelberg displayed a whole cornucopia of products for reducing environmental burdens in the print process: from Prinect Prepress Interface for reducing startup waste, across blanket washup systems that use minimal amounts of cleaning agents and therefore result in low emissions, to the DryingMonitor for objectively assessing how well printed sheets are dried at the end of the print process. The HEI ECO Printing Guide passed out to those going on the ECO Tour covered over two dozen individual measures. Outstanding highlights were marked by a stag. “That’s really impressive,” said Calkins, adding that “other manufacturers usually now ask their customers, what do you expect from us for green printing? Heidelberg already has the solutions.”

Environmentally friendly printing was one of the focuses at this year’s drupa, especially in Heidelberg’s halls.

HEIDELBERG HOSTS ENVIRONMENTAL AWARDS At the drupa trade show, Heidelberg announced that it was hosting the first international environmental awards for sustainable sheetfed offset printing. The main focus is on sustainable use of resources and energy, climate protection, and environmentally oriented print shop management. Companies can win an award either for excelling overall in terms of sustainability, or for outstanding individual solutions in connection with prepress, printing, finishing, logistics, or corporate culture. A total of 50,000 euros can be won. For more information, go to www.heidelberg.com and check out “Feature” on the bottom right. • **CLIMATE-NEUTRAL ON WORLD ENVIRONMENT DAY** For the “World Environment Day” declared by the United Nations for June 5, Heidelberg made sure that all printing done in its two drupa halls was climate-neutral: by compensating for all CO_2 emissions indirectly caused on that day. Heidelberg transferred a sum of money geared to the CO_2 emissions to the Swiss “MyClimate” foundation, which in turn invested the money in a climate protection project. • **FSC FORUM AND CLIMATE INITIATIVE SUPPORTED** Heidelberg sponsored the FSC Global Paper Forum at drupa as well as a climate initiative of the German Print and Media Industries Federation (BVDM). The initiative involves three stages: identifying, preventing, and compensating for CO_2 emissions. BVDM worked with the University of Mainz in Germany to develop a CO_2 calculator that makes it easy to reliably determine the CO_2 emissions caused by each print job. Member companies may use the calculator free of change, although they must pay for a mandatory training session on using the tool.

Business: News

PORTFOLIO ROUNDED OUT AT THE TOP

At drupa, Heidelberg unveiled two new presses for “very large format”: the Speedmaster XL 145 and XL 162. These models are primarily intended for packaging and industrial-scale publication printing. The increasing industrialization of the industry and the pressures this is generating to boost efficiency have made both formats – 57-inch (106 x 145 cm) and 64-inch (121 x 162 cm) – very important in the market. The first of these is the sheet size most commonly used in packaging printing today, while the second dominates the field of publication printing. For developing and manufacturing its largest presses, Heidelberg systematically applies the considerable experience and expertise it has acquired in recent years with the large-format Speedmaster XL 105, the previous flagship of its portfolio.

SUCCESS STORIES IN LARGE FORMAT

They have different histories and success stories: the large-format Speedmaster SM and CD 102 and XL 105 presses. The Speedmaster 102 models were launched back in 1975 and then continually developed further to meet the industry’s growing needs. This March the 100,000th printing unit for this model series was built in Wiesloch-Walldorf. The Speedmaster XL 105 has been a similar sales hit since its initial presentation at drupa 2004. Last fall the 2,500th printing unit was supplied to a customer in England.

NEW PRINTING IDEAS

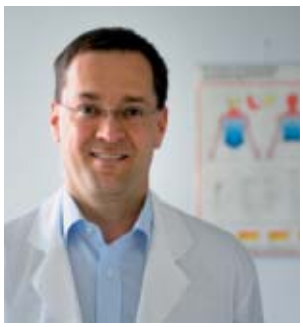
What new printing technologies are on the horizon for applications going far beyond what is known today? Heidelberg is collaborating with various institutions to shed light on this matter, for example with Darmstadt Technical University in Germany. Since last fall they have been working hard to develop new printing processes that are able to print not only inks and coatings, but also substances with electrical or chemical properties. This will pave the way to entirely new applications besides conveying information with text and images.

PURCHASING MORE OUTSIDE GERMANY

To make its bottom line less dependent on the exchange rate for the US dollar, Heidelberg will be sourcing more parts from suppliers outside Germany and also producing more in other countries. A key role is played in this by the plant in Qingpu near Shanghai, China, the size of which was more than tripled last year to 16,000 square meters of production space. A new logistics center in Hong Kong, which began operating in April, will also help improve the Heidelberg Group’s operating results.

On the Move at Heidelberg

At Heidelberg, like elsewhere, many employees either get too little exercise or do it wrong. This can lead to health problems of many kinds. To turn this situation around, the company is conducting worldwide campaigns.



Dr. Felix Hoderlein

"A little over ten years ago, health was largely a private affair," says Dr. Felix Hoderlein, who heads Heidelberg's company medical service. "The way it worked was, more or less: I as the employer pay you for your work. And it's up to you, as my employee, to stay healthy so you can do your job." Although there was not anything fundamentally wrong with this approach, he stresses, in the medium and long term neither side benefited optimally from it.

"In recent years attitudes on this have changed," says Hoderlein. "After all, good health is in everybody's interest." From the standpoint of occupational medicine, working conditions at Heidelberg are about as good as they can be made without excessive expenditures. But in production, for example, sometimes an unfavorable working posture is unavoidable. Many office workers also move too little – they spend most of their time sitting in front of a computer or in meetings, interrupted only by a leisurely stroll to the cafeteria at lunchtime. These are health problems just waiting to happen. "When employees suffer, so does the company," says Hoderlein. "And that doesn't help anyone." This attitude is now shared by many others.

"WHEN EMPLOYEES SUFFER, SO DOES THE COMPANY. AND THAT DOESN'T HELP ANYONE."

EXERCISE IS KEY "Orthopedic ailments account for around a quarter of all workdays missed," explains the internist and occupational physician. Back problems in particular have become endemic in ▸

In mid-May over 600 employees of the Wiesloch-Walldorf plant took part in the second Heidelberg company run.

recent years. "Too little exercise, often accompanied by excess pounds, typically leads to heart and circulatory problems, hypertension, or, in more severe cases, even diabetes. Psychological problems due to the same causes are also responsible for an unknown share of absenteeism. What we all need is more, and more regular, exercise to balance our sedentary habits." Höderlein insists that although more exercise will not completely eliminate these health problems, it will go a long way toward getting them under control.

Last year, Heidelberg responded to this situation by launching two widely acclaimed campaigns at all of its sites worldwide: Miles for More and a health week. "Although there had already been some local activities, some of them taking place regularly, in the years before that," adds Hoderlein, "this time they were coordinated campaigns across all of the company's sites."

EXERCISE AROUND THE WORLD The basic idea of "Miles for More" is for Heidelberg's employees to form teams of at least five persons and get some kind of exercise that involves moving from A to B. This may sound banal at first, but the program quickly developed enormous momentum around the globe. In Wiesloch-Walldorf, Leipzig, South Africa, Australia, and India, to cite just a few examples, Heidelbergers started hiking, practicing Nordic walking, jogging, swimming, cycling, canoeing or dragon boating, going cross-country skiing, or strapping on inline skates.

Because it is not possible to swim such long distances as can be cycled, for example, each discipline was assigned a conversion factor based roughly on the number of calories burned. By the time the first phase of the program ended at the beginning of drupa in late May, around 1,750 employees organized in 164 teams in 14 countries were regularly taking part in "Miles for More." Together they racked up 135,000 miles – for a worthy cause. For each mile scored, Heidelberg donated 10 euro cents to a charity. During drupa, Heidelberg presented a total of 15,000 euros to three nonprofit organizations around the world.

"Miles for More has shown us that our employees are basically open to participating in activities to promote exercise and health," says Hoderlein. "Some of them were just waiting for an opportunity of this kind." So it made perfect sense to follow up with a company-wide health week last fall, with the motto "Time to Move." Heidelberg issued a minimum of requirements for the associated activities – after all, there are many ways to effectively foster good health.

CREATING NEW TRADITIONS In Germany and Brazil, Hong Kong and South Africa, and many

Jogging, Nordic walking, hiking, swimming, cycling, canoeing, and so on as a team was the basic idea of "Miles for More," which spread like wildfire.

other countries as well, the same core themes consistently came to the fore despite cultural differences: proper diet ("You are what you eat"), regular exercise (Dr. Felix Hoderlein: "Back problems unite the world…"), and mental training. At the Wiesloch-Walldorf plant nearly one out of three employees participated in easy-to-learn exercises. In Brazil, staff received neck and back massages. In Hong Kong the cafeteria served vitamin-rich fruit platters for breakfast. And in South Africa, blood pressure was measured, eyesight was checked, and exercises were taught for alleviating tension and stress.

Consistent attention was paid to seemingly little ways to improve fitness, such as taking the stairs instead of the elevator or interrupting work to stretch for a moment at one's desk. It is precisely helpful little practices like this that health manager Hoderlein would like to see become habits in everyday work. "My vision of work at Heidelberg is for employees to take a couple of minutes several times a day and do simple exercises to relax, stretch, or get their circulation going," says the 45-year-old physician, stressing that it does not have to take up much time as long as you do it regularly. "It's very revitalizing. Two or three minutes in between is all it takes; you don't even have to leave the room or remove your tie."

PRINT HAS IMPACT – EXERCISE, TOO After the health week was over, a "back mobile" at the Wiesloch-Walldorf site taught ways to make the most of these minutes: in two of the plant's production halls, 400 employees took a back exercise course right at their workplaces, consisting of 16 miniature training units lasting only a few minutes each. The idea was that if employees do not go get exercise, then the exercise should come to them. This way it would be a lot harder for them to make excuses.

Health is a long-term project that requires a regular effort. A comprehensive, structured start has now been made at Heidelberg, and the next health week is already being planned. The Miles for More teams still exist, and employees have also formed a number of workout groups since the first health week. Regular exercise pays long-term benefits.

Heidelberg has also demonstrated how seriously it takes the topic of health by appointing a full-time health coordinator in Wiesloch-Walldorf at the beginning of this year. The holder of a degree in sports science, her job is not only to incite staff to get more exercise, but also to help them quit smoking, lose weight, etc. Her work is attracting attention far and wide. "I hope," says Hoderlein, "that by a year from now we'll have trainers at all of Heidelberg's sites." ■

On the beach, in the city, or in the mountains:
You can do something for your health everywhere.

Considerably Below the Ceilings

At Heidelberg, good is not good enough. Where topics like the noise, dust, or solvent emissions of printing presses are concerned, the company wants to do considerably better than just complying with the maximum permissible levels. The target is 90 percent below the ceilings.

EXAMPLE: PRESSROOM AIR More and more print products are finished with special aqueous coatings. When these dry, small amounts of ammonia are released that then react with the resins that these coatings also contain. Even in very small concentrations, ammonia has an acrid odor and irritates the eyes. At the end of 2007, Germany lowered the maximum permissible level for emissions of this nitrogen-hydrogen compound to 14 milligrams per cubic meter of air. Similar ceilings are also in place in the United States, China, and Australia.

However, extensive tests revealed that ammonia concentrations of up to 20 millimeters per cubic meter and more can easily occur around a printing press. Heidelberg responded right away by launching, in February 2008, a new generation of its CleanStar peripheral for suctioning off dust and ammonia-laden process air. Emission measurements carried out for two models for the large format presses have confirmed that, when CleanStar is used, ammonia concentrations at the delivery drop to less than one milligram per cubic meter.

LESS AMMONIA, DUST, AND OZONE Besides volatile ammonia, the new CleanStar generation also reduces dust concentrations in the pressroom. Dust in this case actually refers to powder, which is uniformly sprayed onto fresh sheets right after printing to prevent them from sticking together in the delivery pile. In the best case, this dust is merely annoying to operating personnel; in the worst, it can harm their bronchial tract. Measurements have shown that the new CleanStar slashes dust concentrations to only 0.2 milligram per cubic meter of air – significantly less than the maximum level of ten milligrams per cubic meter now allowed in Germany.

The target of not exceeding ten percent of the legal ceiling has now also been achieved by a wide margin for ozone. This gas, which also has a pungent odor in elevated concentrations, is released by UV presses as a result of curing the ink with UV radiation. Heidelberg suctions the ozone off at the dryers, printing units, and delivery.

The controversy over the environmental consequences of using alcohol in the dampening solution has intensified. For a long time, it seemed to be indispensable to use a mixture of water and alcohol to neatly separate the printing and nonprinting areas of the plate. But most of the isopropyl alcohol subsequently evaporates and, especially in poorly ventilated print shops, can adversely affect the health of press operators. Of all manufacturers, Heidelberg has installed the most presses that use substantially less than the usual alcohol concentration of eight to ten percent. At drupa 2008, Heidelberg presented three presses that dispense entirely with alcohol – several hundred printers are already working with these models.

Air, noise, vibrations – Heidelberg presses are well below the maximum permissible levels in all relevant ways.

LESS INK MIST, LESS NOISE Similarly to dust, the rapidly rotating cylinders and rollers of a press give off ink and coating mist that can harm the respiratory tract of personnel. According to studies by the German accident prevention association for the printing and allied industries in Wiesbaden, however, the mist given off by Heidelberg presses is below the detection threshold. Special ink mist suctioning systems, like those available for UV presses, help solve this problem. A beneficial side-effect is that less organic solvents are needed for cleaning.

Solid, liquid, and gaseous substances are not all that can pose health hazards. Noise can also be injurious. Two years ago, the European Union lowered all of the maximum permissible noise levels by 5 dBA. Now, if the noise level in a pressroom exceeds 85 dBA, steps must be taken to reduce it. The noise emissions of large sheetfed offset presses can reach this ceiling, so Heidelberg has taken appropriate action: by developing special "acoustic kits" for the Speedmaster SM 74, SM/CD 102, and XL 105 model series.

Plates and guards have been modified to make them seal more tightly and prevent as much noise from being released, and special acoustically insulating mats inside the presses reduce emissions by between 1.5 and 2 dBA.

VOLUNTARY CERTIFICATION Heidelberg is also on the safe side regarding the vibrations that printing presses inevitably cause as a result of their extremely high rotational speeds. A study by the Rhineland Technical Inspectorate (TÜV Rheinland) has shown that the vibrations are considerably below the legally prescribed ceilings. For a time, the vibrations caused by fast-running machines were in the public spotlight because they are suspected of causing or aggravating back problems.

To demonstrate that Heidelberg presses comply with the ceilings, and in fact produce vibrations well below the maximum permissible workplace levels, the world market leader voluntarily has them certified by "BG Prüfzert," a testing and certification agency run by the German accident prevention associations. This gives customers both within Germany and elsewhere the documentation they need to comply with official requirements. The certificates are issued following extensive measurements of series-built presses running under realistic everyday conditions, and regularly renewed. ■

Printing Made Easy

Heidelberg wants to make the work of press operators as easy and comfortable as possible. This depends not only on the physical design of the press, but also on its computer-assisted operation. A completely new concept for this was presented at drupa 2008.

When you hear the word "ergonomics," the first things you think of are special office chairs, height-adjustable desks, or user-friendly computer keyboards. Or in the printing business, for example, presses "with the right buttons in the right places." Heidelberg goes considerably further than these basic improvements, however. "For us, ergonomics is much more than just a user-friendly external press design," explains Jürgen Mittmann, the product manager responsible at Heidelberg for the Prinect workflow system. "It also involves appropriately designing the overall operator-machine interface."

The amount of electronics in and around a press is growing fast. Because automation now accounts for 40 percent of the time spent developing products, at Heidelberg ergonomics begins with software development. Attention is paid to the shape of the press at the other end of the process. The maxim is always: Design follows ergonomics – never the other way around.

MINIMIZING OPERATOR WALKING DISTANCES Heidelberg leads the industry in designing enhanced operator-machine interfaces. Back at the turn of the millennium, the sheetfed offset market leader became the very first manufacturer to switch from pushbutton controls, which had a nearly century-old tradition, to straightforward and wear-free operation using a touch screen. The user interface was developed and designed in close cooperation with customers.

To make the presses as ergonomic as possible, Heidelberg worked with a number of printing companies. The steps performed by operators and how they moved around the press were carefully observed and analyzed. The aim was to find out which actions were repeatedly carried out, in order to combine and simplify them – also by minimizing the distances they walked. "These days, operators don't just have to run the press – they're also responsible for monitoring the overall print process," stresses Mittmann. Especially in highly industrialized print shops, a high-performance central control console is therefore essential for increasing productivity further.

At this year's drupa trade show, Heidelberg showcased a comprehensive overall solution: the new high-performance control console dubbed Prinect Press Center. It can be used on all Speedmaster models, from the small Speedmaster 52 to the very large Speedmaster XL 162. Staff therefore do not have to relearn anything when working with different-format presses. The consistency of this concept is a clear advantage for boosting productivity.

SOFTWARE IN 26 LANGUAGES All press functions, from job preparation across makeready to evaluation of printed sheets, can be centrally performed from the new Prinect Press Center. Special attention was paid to designing it for outstanding operating ergonomics. The sheet holder can be angled ▸

High-tech: The new high-performance Prinect Press Center for all Speedmaster series.

Unusual: a jogwheel like those normally found in upscale cars. Among other things, it is used to finely and precisely set the blast air and vacuum for the press.

Intelligently designed: The new, ergonomic control console ensures an optimum view of sheets being inspected. Four standard-light fluorescent lamps ensure low-reflection lighting and reliable assessment of colors.

The perfect duo at the delivery: touch screen and jogwheel for greater efficiency and safety.

by up to 45 degrees to provide an optimum view of sheets being inspected. The console can be set to any height between 880 and 950 millimeters. Four standard-light fluorescent lamps ensure low-reflection lighting and reliable assessment of colors.

The operating concept once again revolves around a 19-inch touch screen that excels with clear user guidance and well-organized, easy-to-grasp menus. The touch screen can be tilted and swiveled in all directions, letting the operator adjust its position for optimum convenience. To avoid forcing press operators around the world to deal with a foreign language, Heidelberg offers the control console's software in 26 different language versions, including Lithuanian and Bahasa Indonesia.

State-of-the-art electronics also help significantly reduce the work involved in job changes. This is enabled by a new, process-oriented user guidance system called "Intellistart," which is now standard in all new Speedmaster presses. Intellistart intelligently compares all relevant information of the current job – such as the number of colors, sheet size, and whether or not it involves perfecting, or double-sided printing – with those of the new job. It then generates a step-by-step "to do" list to speed up the changeover and makeready procedure. "Even on the very large format presses, you can initiate a job change with just a few clicks of the mouse," says Reinhard Janzer, who is responsible at Heidelberg for developing the software for all model series. Depending on the number of jobs and range of required actions, this intelligent approach boosts productivity by up to eight percent, also by letting the operator remain at the central console more of the time.

JOGWHEEL AS IN AN UPSCALE CAR The new Wallscreen from Heidelberg is a real revolution in press operation: an up to 57-inch-wide flat LCD screen that can be optionally integrated in the control console. The Wallscreen can display, among other things, an animated overview of the press functions or a 1:1 representation of a press sheet, with the color separations shown individually. This gives the operator an unprecedented level of support.

At the delivery end, things get even more futuristic: Speedmaster presses with high-pile delivery are equipped there with a combination of touch screen and a jogwheel like those found in upscale cars. The operator can use the touch screen to select and adjust the values for overdampening, drying, and powder application. All blast air and vacuum settings can be precisely and finely made by turning the jogwheel. Both Jürgen Mittmann and Reinhard Janzer are convinced that this operating concept makes the job of press operator "a little bit sexier," especially for younger people. ■

Social Responsibility: News

GERMAN WAGE AND SALARY SYSTEM COMPLETELY REVAMPED

Following long, intensive negotiations, the new general wage and salary agreement for the German metalworking industry, known by the acronym "ERA," also entered into force at Heidelberg on January 1, 2008. It has replaced outdated pay systems and created a new framework that is better aligned with today's working conditions. It does away with the old distinctions between blue- and white-collar workers on the one hand and between businesspeople, technicians, and masters on the other. Nor is any basic distinction now made anymore between wages and salaries. All employees are now classed within the same hierarchy of grades. ERA also redefines performance-based pay schemes, for the first time permitting them to dynamically depend on evaluations, target agreements, and indicators. This paves the way for creating stronger incentives for capable workers who are willing to perform.

SUPPORT FOR YOUNG PRINTERS

Heidelberg provided considerable support for the search for the world's best young offset press operators. For the German competition, the company made available equipment and expertise at its Print Media Center. Heidelberg also paid for the winner to travel to the world finals in Shizuoka, Japan. There, Heidelberg Japan provided two half-format presses and a complete array of prepress and finishing equipment for the 2007 WorldSkills International Skills Festival.

COOPERATION WITH PRIMARY SCHOOLS

Within the scope of the initiative "Knowledge Factory – Companies for Germany," in the fall of 2007 Heidelberg concluded cooperation agreements with nine primary schools. Senior trainers from three Heidelberg facilities are now showing teachers at the schools how to use the contents of a "Technology Box" created by Heidelberg to encourage playful learning. Five of the schools are located in the Rhine-Neckar region, two in Brandenburg, and two in and near Amstetten.

PROJECTS IN NEWLY INDUSTRIALIZING COUNTRIES

In a joint project with the Deutsche Investitions- und Entwicklungsgesellschaft (DEG), Heidelberg is promoting vocational schools and colleges for the graphic arts in India, Turkey, South Africa, and Ukraine by holding special advanced programs for teachers at these schools. The goal is to significantly improve training in printing-related professions in these countries so it will meet the requirements of the international print media industry. If the initiative is successful, it will be extended to other countries as well.

2007/2008 Financial Year

Q1

"PACT TO SECURE THE FUTURE" RENEWED

The Management Board and workforce representatives agreed to extend the "Pact to Secure the Future" through 2012. The goal is to continue the measures agreed on in 2005 for improving the company's competitiveness and providing job security. The package of measures is intended to ensure that the cost savings already achieved will be maintained in the future.

RWE REMAINS INVOLVED

RWE, the energy group based in Essen, Germany, that used to own a majority of Heidelberg's stock, traded in only part of the exchangeable bonds it issued in 2004 for cash. This meant that it would be holding on to Heidelberg shares longer than originally planned, keeping 9.62 percent of total equity. RWE is thus now the second-largest shareholder after Allianz, which holds 12 percent. Heidelberg's free float amounts to about 78 percent.

Q2

NEW HALL

In September 2007, Heidelberg inaugurated the new Hall 11, comprising 35,000 square meters of floorspace, at its Wiesloch-Walldorf site. It was built to accommodate the assembly operation for a complete new generation of presses: the "very large format" Speedmaster XL 145 and Speedmaster XL 162. The new hall represents an investment of 45 million euros.

QUIET SHAREHOLDERS MEETING

About 1,500 shareholders representing roughly 63 percent of the company's equity attended the annual shareholders meeting at the Rosengarten congress facility in Mannheim in late July, 2007. They voted to approve all of the proposals on the agenda. Among other things, these called for the dividend to be raised to 0.95 euros per entitled share (previous year: 0.65 euros). Dr. Siegfried Jaschinski, the chairman of the executive board of Landesbank Baden-Württemberg (LBBW) was confirmed as a new member of the Supervisory Board.

Q3

NEW HALL IN CHINA AS WELL

Just a little over a year after Heidelberg opened a plant in Qingpu, China, the facility was expanded. The existing 5,000 square meters were extended by a new hall with over twice as much floorspace. At the same time, Heidelberg began assembling the Printmaster PM 74 model series for 29-inch (50 x 70 cm) format. China is one of the company's largest markets, contributing about ten percent of total sales. The plant's expansion is also important in connection with Heidelberg's intention to reduce its dependence on currency exchange rates by stepping up production in countries outside the eurozone.

SUCCESSFUL OPEN HOUSES

About 7,000 Heidelberg customers attended the traditional autumn open houses at five German sales branches. The good business done there indicated that Germany's printers were highly willing to invest in new equipment.

Q4

CONSUMABLES

Heidelberg pooled all of the consumables it distributes, including printing plates and inks, under the "Saphira" brand name. This move was intended to significantly strengthen this area of business. Heidelberg has set itself the medium-term target of having its "3S" business – spare parts, services and supplies – contribute about 25 percent of total sales. Currently the figure is still just below 20 percent. This business segment is much less vulnerable to economic cycles than the company's core business with printing presses.

IMAGE LEAP

In the image analyses published in Germany's "Manager Magazin," Heidelberg's image improved the most among the over 150 companies studied: Heidelberg advanced by 59 places to become the number 24. The company narrowly missed an image score of "very good" by just a few points. These image studies reflect the opinions of about 2,500 top German executives.

Further Information





PRINT MEDIA

SUSTAINABILITY REPORTS

Sustainability Report 2007/2008
Sustainability Report 2006/2007
Sustainability Report 2005/2006
Sustainability Report 2004/2005

"PRINTING AND THE ENVIRONMENT" BROCHURES

No. 11 "Environmental Protection at Heidelberg"
No. 10 "UV Technology"
No. 9 "Printing with Less Alcohol"
No. 8 "Efficient Use of Cleaning Agents"

Please order these publications by sending an e-mail to environment@heidelberg.com or on the Internet at www.heidelberg.com > Download Center.

INTERNET

ANNUAL REPORT 2007/2008

On the Internet at www.heidelberg.com > Investor Relations > Annual Report 2007/2008

COMPANY BROCHURE

On the Internet at www.heidelberg.com > About Us

THE BROCHURE "HIGH-PRECISION SERIES PRODUCTION"

On the Internet at www.heidelberg.com > About Us

ENVIRONMENTAL INFORMATION CENTER

You can visit the Environmental Information Center in the Print Media Center at our headquarters in Heidelberg, and in the Print Media Academies in Kuala Lumpur, Malaysia and Shenzhen, China. Please contact the Heidelberg branch nearest you to arrange an appointment.

INQUIRIES

If you have questions about specific sites or products, please contact the locally responsible individuals. You will find the addresses at www.heidelberg.com > About Us > Environment > Site Data

Please direct questions about available subsidies for environmentally friendly investments to your Heidelberg branch or fax them to +49-62 21-92-50 69.

CERTIFICATES

The 2007/2008 Sustainability Report of Heidelberger Druckmaschinen AG is printed climate-neutrally on FSC-certified paper.

printed carbon neutral
www.natureOffice.com / DE-134-574597

FSC Mixed Sources
Product group from well-managed forests and recycled wood or fiber
www.fsc.org Cert no. SCS-COC-001048
© 1996 Forest Stewardship Council

Environmental Goals and Measures

Heidelberg sets binding environmental goals. Their achievement is regularly monitored.

GOALS	ACHIEVEMENT
ENSURE THE **ROHS COMFORMITY** OF NEW HEIDELBERG PRODUCTS Heidelberg has voluntarily pledged to develop all new products for the market from 2011 on in compliance with the EU RoHS[1)] directive.	Work to switch over to lead-free soldering is well under way in one assembly cell in electronics production at the Wiesloch-Walldorf site, and the approval process is ongoing. The switchover to lead-free soldering has also begun in a second assembly cell. Intensive communication with suppliers is continuing to ensure the RoHS conformity of all new products by the year 2011.
REDUCE **EMISSIONS** We will reduce the emissions of all newly developed products relative to their productivity. We will cost-effectively modernize old systems in our production and assembly halls to comply with the stipulations of the German Technical Guidelines for Air Pollution Control (TA-Luft).	The project to replace all burners for the boilers, which began in the last financial year, is being systematically continued to comply with the new TA-Luft requirements. Where products are concerned, we have reduced powder and ammonia emissions further at the delivery.
IMPROVE **ENERGY EFFICIENCY** We will develop a comprehensive concept for a forward-looking, secure energy supply for our sites. At the same time, we will further increase the energy efficiency of newly developed products.	In Amstetten, the large cast cooling hall in the foundry is being rebuilt for use of circulating air with heat recovery. The market acceptance of water-cooled presses, in which waste heat is removed using water instead of air, is also increasing. This tangibly improves conditions in the pressroom. Water enables much more efficient waste heat removal via smaller-diameter pipes than air.
SIMPLIFY Currently a large number of different ancillary materials are used in our production and assembly operations. By reducing this number, we will decrease the associated risks and costs.	In addition to reducing further the number of ancillary materials used, products are being developed so as to minimize the addition of new materials (in new products). This is checked in connection with the environmental assessments that every development project must undergo.
EXTEND **STANDARDS** TO SUPPLIERS We will urge our external suppliers to comply not only with laws, ordinances, and regulations, but also with Heidelberg's own standards.	Intensive communication with the suppliers continues, not only to ensure voluntary RoHS conformity for all new products by the year 2011 but also to implement all environmental improvements of relevance to Heidelberg.

1) Restriction of the use of certain hazardous substances in electrical and electronic equipment

Environmental Goals for Products

Heidelberg works consistently to enable more energy-efficient operation of its presses and reduce the associated emissions.

REDUCING AND SAVING

ENERGY SAVED

The new **AirStar** air supply unit consumes up to 50 percent less energy than its predecessor. The reason: The turbo radial fan used in it is over twice as efficient as the previously used side channel fan.

The energy efficiency of the **DryStar** dryers has been increased in two ways. For one, the distance between the dryer and the sheet being dried has been reduced to eight centimeters. Each centimeter less improves drying by about five percent without changing energy consumption.

For another, an energy-saving circuit makes it possible to reuse hot air from the dryer several times: Instead of immediately releasing all of the used hot air outdoors, up to 50 percent of it is channeled back into the drying process.

The **CombiStar Pro** features a sophisticated automatic energy-saving function: when the air is cool outdoors, the inking units are cooled by ambient air via a glycol recooler. The active refrigerating unit does not switch on until the outdoor temperature rises above 18 degrees Celsius. In temperate climates, as in Central Europe, this makes it possible to dispense with use of the active refrigerating unit for conditioning the inking units about three-quarters of the time.

These improvements reduce the dryers' energy requirement by between 10 and 30 percent.

EMISSIONS REDUCED – RESOURCES UTILIZED BETTER

The newly developed **PowderStar AP 500** and **AP 500 Duo** powder sprayers slash powder consumption by up to 50 percent. This in turn significantly reduces soiling of the delivery and the pressroom. The efficiency of the **CleanStar** – the unit that suctions off powder – has also been improved. The placement of the conduits used to carry off the powder has been optimized to take air flow conditions in the delivery into account, which results in the powder being carried reliably into the waste air filtration cabinet. At the same time, the CleanStar cuts down on any unpleasant odors caused by the use of aqueous coatings. This lowers pressroom concentrations of powder and ammonia to well below the maximum permissible workplace levels.

WASTE REDUCED

Advanced filtration technology in the **CombiStar Pro** improves the quality of dampening solution and lets it be used considerably longer. In many cases, it is necessary to change the used dampening solution every four to six weeks. The new two-stage filter can extend the intervals to up to a year. This has various advantages: Because the dampening solution only needs to be replaced very occasionally, only a fraction as much has to be disposed of as waste. This translates into significantly lower disposal costs.

Environmental goals
Products and certifications at a glance >>

Third-Party Assessments

Heidelberg opens itself up to externally conducted audits of its sites and products.

VARIOUS CERTIFICATIONS

COMBINED CERTIFICATION UNDER ISO 9001 AND ISO 14001

Twelve years ago, Heidelberg began striving for certification of its quality and environmental management systems at individual sites. Many customers also continue to expect us to have our core functions certified, especially development, production, and service. Heidelberg has designed its organization and processes accordingly. An ISO 9001:2000 and ISO 14001:2004 compliant management system comprises all relevant processes, in other words the just-mentioned core functions as well as purchasing, personnel, controlling, IT, etc.

A few smaller foreign Postpress sites have so far been exempted from the certification process (Nové Mesto in Slovakia and Eksjö in Sweden), as well as the new production site in Qingpu on the outskirts of Shanghai, China. These sites will also be gradually integrated into the certification system.

A combined reaudit was conducted in September 2005 to renew certification under the ISO 9001:2000 and updated ISO 14001:2004 standards. This was done by DQS Deutsche Gesellschaft zur Zertifizierung von Managementsystemen, which will also be involved in the next round of certifications between 2008 and 2011.

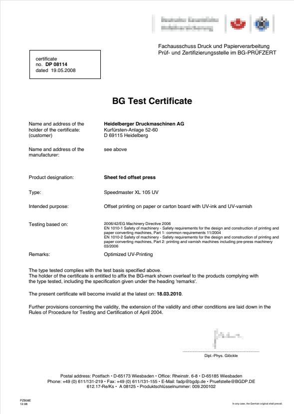
PRODUCT CERTIFICATION

Where workplace safety and environmental protection are concerned, there are only two certificates for printing presses: “Tested Emissions” and “Optimized UV Printing.” Both are issued by the testing and certification office of the German accident prevention association responsible for the printing industry. These certificates document that the emissions remain reliably and consistently below all relevant ceilings. Specifically, this means that they do not exceed ten percent of the maximum workplace levels permitted in Germany. Heidelberg has had its presses certified since 2001; new models are progressively incorporated into the certification process.

Heidelberg presses in several format classes are now certified. Those tested so far are the Speedmaster XL 105 with and without UV drying, the Speedmaster SM and CD 102 with and without UV, the Speedmaster CD 74, and the new Speedmaster XL 75 with and without UV.


CERTIFICATE

HEIDELBERG


Fachausschuss Druck und Papierverarbeitung
Prüf- und Zertifizierungsstelle im BG-PRÜFZERT

certificate
no. **DP 08114**
dated 19.05.2008

BG Test Certificate

Name and address of the holder of the certificate: (customer)	**Heidelberger Druckmaschinen AG** Kurfürsten-Anlage 52-60 D 69115 Heidelberg
Name and address of the manufacturer:	see above
Product designation:	**Sheet fed offset press**
Type:	Speedmaster XL 105 UV
Intended purpose:	Offset printing on paper or carton board with UV-ink and UV-varnish
Testing based on:	2006/42/EG Machinery Directive 2006 EN 1010-1 Safety of machinery - Safety requirements for the design and construction of printing and paper converting machines, Part 1: common requirements 11/2004 EN 1010-2 Safety of machinery - Safety requirements for the design and construction of printing and paper converting machines, Part 2: printing and varnish machines including pre-press machinery 03/2006
Remarks:	Optimized UV-Printing

The type tested complies with the test basis specified above.
The holder of the certificate is entitled to affix the BG-mark shown overleaf to the products complying with the type tested, including the specification given under the heading 'remarks'.

The present certificate will become invalid at the latest on: **18.03.2010**.

Further provisions concerning the validity, the extension of the validity and other conditions are laid down in the Rules of Procedure for Testing and Certification of April 2004.

Dipl.-Phys. Glöckle

Postal address: Postfach • D-65173 Wiesbaden • Office: Rheinstr. 6-8 • D-65185 Wiesbaden
Phone: +49 (0) 611/131-219 • Fax: +49 (0) 611/131-155 • E-Mail: fadp@bgdp.de • Pruefstelle@BGDP.DE
612.17-Re/Ks • A 08125 • Produktschlüsselnummer: 009.200102

PZB08E
12.98

In any case, the German original shall prevail.

Development and Production Sites

- Certified as ISO 14001-compliant
- Not yet certified

ENVIRONMENTAL POLICY

A well-functioning environmental management system is indispensable for enabling the Heidelberg Group to consistently implement its environmental policy and continue raising the achieved environmental standards. Heidelberg has therefore been working steadfastly since 1996 to install environmental management systems that conform to the international ISO 14001 standard at all of the group's production and development sites. So far, nine of its 15 sites have been certified.

The writing of this report was finished on June 30, 2008, and the German-language version was published on July 18, 2008.

The last report was issued in July 2007; the next one will appear in July 2009.

Environmental data, names of contacts, and general information on all 15 sites can be found on the Internet at www.heidelberg.com > About Us > Environment > Site Data

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