



# Environment Directions



For further information on any of the Heidelberg products featured in this publication please contact your local Sales Representative.

Heidelberg Graphic Equipment Ltd.  
69-76 High Street · Brentford · Middx TW8 0AA  
Tel: 020 8490 3500 · Fax: 020 8490 3589  
[www.uk.heidelberg.com](http://www.uk.heidelberg.com)



## Think green with Systemservice

Heidelberg offers many advisory services including access to experts who can help you make your plant greener without compromising quality or productivity. Expert technicians, engineers and consumables advisers will enable you to make environmentally sound decisions. Heidelberg also publishes an annual Sustainability Report which will reassure you that your presses are developed with the planet in mind. You can view this at [www.heidelberg.com](http://www.heidelberg.com).

Many Heidelberg products incorporate a Remote Service capability. Cutting down on engineer visits by remote fixing or ensuring the correct spares are onsite at the first engineer visit significantly reduces the service carbon footprint.

Your Press Maintenance Agreement includes the servicing of all Star environmental products used to minimise your waste.

### Technical HelpDesk

Operated by experienced engineers **020 8490 6000**

### Consumables

Heidelberg can supply a range of green consumables, all trialled on relevant equipment prior to sale. Its own brand, Saphira, was the subject of a rebranding at drupa. The Saphira Chem-Free plate has proved an especially big seller and now there is an updated version to output at the full Suprasetter imaging speed. This plate has proven environmental credentials and on press performance. Heidelberg equipment can be funded through consumables deals enabling customers to repay capital costs in line with the volume of materials used.

Consumables **020 8490 6005**

## The future is...green

*Some people called it the "green drupa", but visitors to the Dusseldorf show of 2008 had to be canny enough to differentiate the "green-wash" (white wash with an environmental message) from the truly helpful tips.*

Printers need to know their impact on the environment, not only because their customers expect it but also because it makes good business sense. If approached in the right way it can also be a uniting, team-building venture.

Global warming, reduction of resources waste...you've seen it on TV and read about it in the newspapers. The messages are shouting out loud and clear that we have to be greener. Corporate social responsibility is the new buzzword and a big part of this is taking the environment seriously. As a result, an increasing number of print buyers are checking their suppliers' credentials on this front before placing orders.

Where statements or company policies might have been interrogated before, today many expect their suppliers to have ISO 14001 accreditation, FSC/PEFC Chain of Custody or carbon strategies and certification.

In this respect, the push in the UK is more vocal and lively at present than mainland Europe where a steady build up continues. Is it a fad or a long term concern? Either way, Heidelberg will continue to develop the products that are most positive to the environment and in the interim it can envisage printers taking strides forward in terms of reducing energy, alcohol, chemistry and paper waste, mapping out their carbon footprint and offsetting it more.

If customers have spurred the change, the business benefits have nurtured developments. Obviously, cutting resources waste has a financial, cost-cutting benefit. It enhances the whole concept of process control, of managing production in a detailed and holistic manner to maximise efficiency and competitiveness.

Many companies who have adopted green policies have been impressed by the enthusiasm that being environmentally responsible generates, not only from customers but from within their own businesses. This enthusiasm can drive individuals to not only adopt given strategies but be inventive in creating their own ideas and initiatives. Going green promotes change. Being green is the future.

## Cutting back

It's the green diet. On an Eco-tour at drupa 2008 Heidelberg customers found out just how they can cut down on...



## Paper

The highest carbon contributor in print is the paper you print on. Printing is essentially "ink on paper" so paper is not a resource that can be eliminated. Printers can, however, be aware of a paper's recycled content and its FSC/PEFC status and, certainly, they should ensure waste is minimised. It is calculated that a B1 commercial printer with an average run length of 8,000 sheets per job, can waste as much as 4-10% of the paper used for a job.



Much of the latest generation technology works with the printer in the quest for reducing waste sheets. At B3 level, the lack of ink zones in the Anicolor inking unit and no time consuming setting processes allow for much faster makeready. A four-colour Anicolor will makeready in 10 to 20 sheets, and in long perfecting mode about 40 sheets. Across all press formats, the use of Prinect workflow modules, spectral measurement and Intellistart press controls combine to get presses faster to sellable sheet production. Prinect Inpress Control, with its automated, inline colour and register corrections, takes waste reduction to a new level. It is especially popular with buyers of new long perfectors. Since November 2007, 75% of long perfectors have been specified with this time and waste saving component.

Additionally a new paper stretch compensation package, an option with Prinect MetaDimension prepress software, enables printers to identify the characteristics of a specific stock so that when they produce their plates the exposed image is adapted to match the stretch characteristics of the paper.

Paper accounts for about 60-70% of the cost of a printed product and as such any reduction in waste is sure to be a bottom line gain.

## Energy

In CtP, Heidelberg's Suprasetter laser technology uses one fifth as much energy as its competitors without compromising the productivity.

On the press, the main energy users in order of severity are the driers, main drive and air pumps. Heidelberg has developed products that help to minimise energy usage in these areas. With the closest distance between the dryer and sheet in the entire market, DryStar Combination achieves a much higher degree of drying with the same or even less energy. This drying principle reduces the energy consumption up to 30% for IR, hot air and also UV driers.

The measurement system, DryingMonitor, manages the energy used on hot air driers to get optimal drying for the type of paper and coating being printed. The new electronic ballasts on the UV driers consume less power than current transformer technologies, thanks to enhanced efficiency and 40% less standby power consumption. For the new main drive, a synchronised sinusoidal motor reduces energy loss by 30% over conventional motors.

The AirStar air supply system features two new types of air generator: a two-stage claw pump and a frequency controlled turbo radial blower with very high efficiency, which can dramatically reduce energy consumption by up to 50% compared to market standards and also cut heat transfer to the pressroom by up to 45%.



In order to cut energy consumption, CombiStar 3000 Pro uniquely uses the ambient temperature situation. The cooling unit is only activated at temperatures well over 20 degrees Celsius. Therefore, climatic conditions in the UK enable the inking unit temperature control in the CombiStar 3000 Pro to be operated most of the time without using the integrated cold unit.

In the pressroom, water-cooled peripherals have environmental as well as other advantages. They remove heat from the printing press far more efficiently than with air cooling. They also reduce air movement and eliminate the problem of supplying and conditioning air, thus controlling the ambient air temperature for a stabilised production environment and cutting energy consumption dramatically.





## Alcohol

Only ten years ago the majority of printers ran with 12-13% alcohol; today the figure is 8-10% and dropping. Many printers have reduced their consumption of alcohol, but like to retain some alcohol because it makes printing a more forgiving process.

Interestingly, if you look at a modern press like a Speedmaster XL 105, the average alcohol level used is even lower. For example, in Germany only 37% of XL 105 printers are running with 7-15% alcohol (compared to 85% on average over all other presses), 42% with 5-8% and already 20% with 0-4%.



At drupa 2008, Heidelberg was running its presses with 2-3% alcohol only, with three of them even running alcohol free. Running alcohol free is straightforward on Heidelberg presses although it does involve commitment and a willingness to operate in a disciplined way.

That's why Heidelberg talks of the 3% 'sweet spot' which keeps consumption low but gives printers some operational leeway and can help in other areas such as paper waste.

Today there are 70-80 printers all over Europe who successfully run Heidelberg presses alcohol free in standard printing environments. Where printers are using special inks or printing on plastics it becomes a bit more challenging.

Additionally, printers looking to cut their alcohol consumption should beware of replacing isopropyl alcohol with an equally harmful substance or other type of alcohol to make it work. For advice on IPA alternatives contact Heidelberg's consumables division. FOGRA is another good source of objective advice.

## Other reductions

At drupa 2008, Heidelberg also showed printers how they can cut back on VOC emissions, noise, dust, ink residue, waste water and chemistry.

## Relieving the carbon burden

"The paper and its production represents about 70-80% of carbon emissions in the printing process. But there is much more to be considered: chemicals, printing plates, fount solutions, cleaning materials, energy and logistics."

This is the view of Andreas Weckwert of natureOffice, an Augsburg-based consultancy in energy efficiency, carbon output and climate neutral printing. He was at drupa to advise printers on this hot issue.

Printers are becoming more interested in the issue of carbon footprints because increasingly environmental credentials are key to securing many major tenders. That is not to say that there are not many businesses who also feel a genuine responsibility for protecting and improving the environment and improving the bottom line.

"Carbon output matters because climate change matters," says Mr Weckwert. "CO<sub>2</sub> is one of the main causes of climate change and the world has recognised it needs to do something about global warming and the dangerous consequences. Our philosophy is always to combine avoiding and reducing strategies with compensation efforts."

The company cites three areas for focusing change:

- Change of behaviour
- Change of technical equipment
- Change of processes

Often changing mindsets, for instance encouraging staff to adopt a waste segregation arrangement, is the hardest. "In many cases it is much more effective to talk about technical changes or additional equipment to make the printing process more environmentally friendly and more effective in terms of money and time. Just think of heat recovery, alcohol free printing or renewable energy sources."

"The timescale for change can be quick, one to three months for a small business and six months to a year for the more complex project," says natureOffice. "However, carbon footprinting is not a one off – you have to review and revise on a regular, perhaps yearly, basis."

In the UK the Carbon Trust and Defra have co-sponsored PAS2050, a Publicly Available Specification for the assessment of the life cycle of greenhouse gas emissions of goods and services. The BPIF is supportive of this initiative.

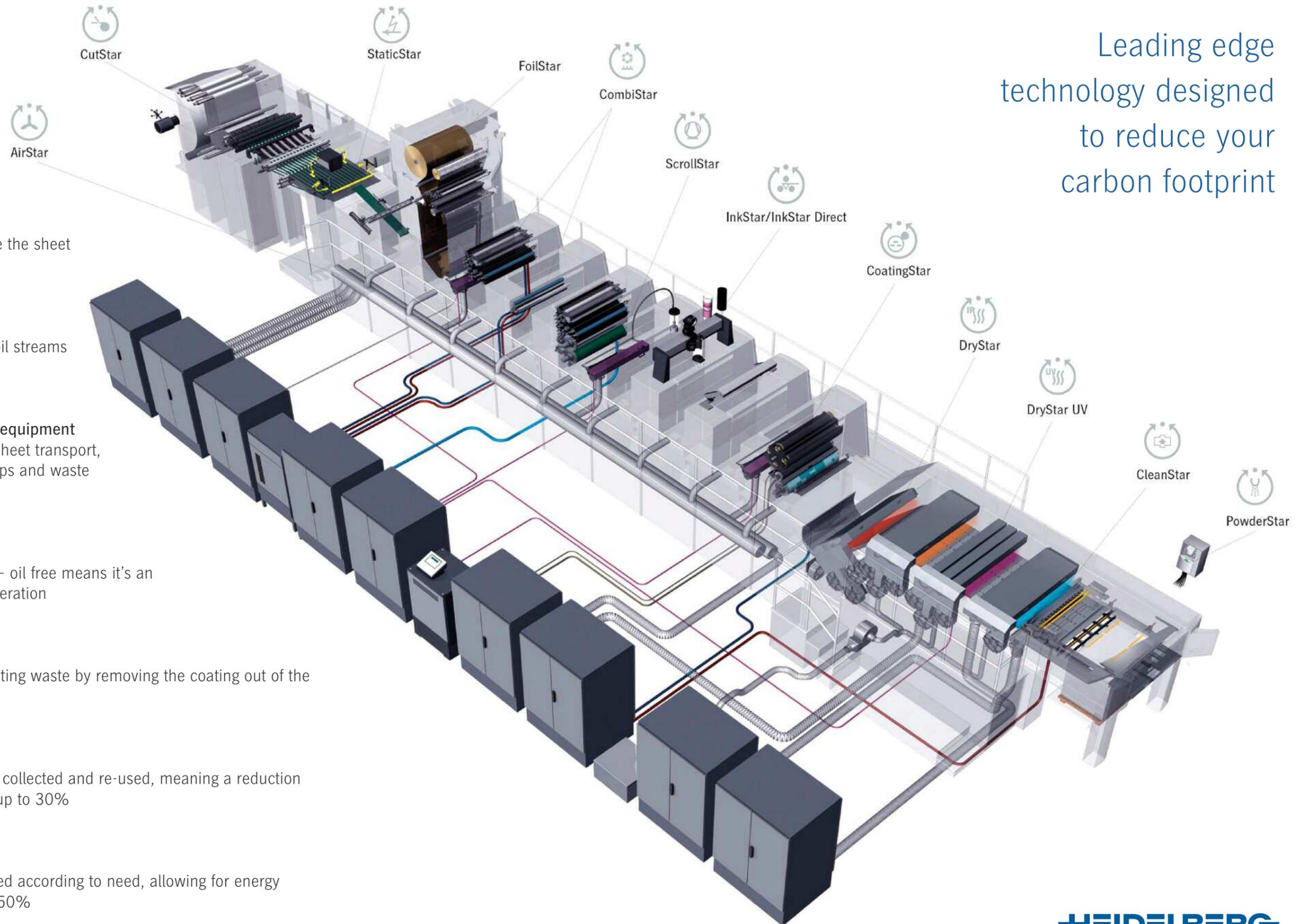


On World Environment Day during drupa, Heidelberg did offset the environmental effects of all print products created during the course of the day at the show. It supported a Gold Standard project which enabled a region of India to have electricity and heat generated from biomass that was previously burned off the fields as waste. This project not only benefits the environment but boosts the income of local farmers.

Every print product has its specific carbon footprint and so does each printing press. This is determined by the raw materials used and all the production and assembly processes plus any transport required.

Heidelberg has joined forces with a specialist in the field to calculate the carbon footprint of a Speedmaster XL 105-10-P. Now Heidelberg customers can exactly evaluate the carbon footprint of their printed products or even compensate the manufacturing of the press through authorised carbon offsetting according to the Kyoto Protocol. Customers are now offered the opportunity to offset the carbon footprint of their new Speedmaster XL 105 for approximately £1,200 per printing unit.

Leading edge  
technology designed  
to reduce your  
carbon footprint



**CutStar**

Heidelberg's sheeter  
Saves paper waste because the sheet  
is cut to perfect length

**FoilStar**

Cold foil application  
Can be run with multiple foil streams  
to reduce foil consumption

**StaticStar**

Antistatic and foil printing equipment  
Stabilises the feeding and sheet transport,  
therefore reduces feeder trips and waste  
with critical substrates

**ScrollStar**

Pneumatic air compressor  
Long-life scroll technology – oil free means it's an  
environmentally friendly operation

**CoatingStar**

High-end coating supply  
Reduces the amount of coating waste by removing the coating out of the  
pipeline (reverse operation)

**DryStar**

For coating units  
Up to 50% of the hot air is collected and re-used, meaning a reduction  
in energy consumption by up to 30%

**AirStar**

Air supply system  
Speed and blowers regulated according to need, allowing for energy  
consumption cuts of up to 50%