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HELL

COMPLETE RELAUNCH

HELL's fresh appearance with new Heliograph look

Clearly structured content and a modern look are the trademarks of HELL Gravure Systems' completely renewed website. The relaunch highlights the Kiel-based company's reputation as an innovation leader and solution provider for the prepress area.

Many have already discovered HELL Gravure Systems' refreshing new start that reflects the Heliograph look. The website's fast, intuitive user interface is emblematic for the high quality of all HELL engraving systems. Interested parties and customers quickly find their way around the site and easily reach the desired information. The renewal of the website thus symbolizes the company's further development. HELL Gravure Systems has presented itself in the best tradition for many years with its founder and inventor Dr. Ing. Rudolf Hell as the successful manufacturer of engraving systems for gravure printing forms. With the development of systems for direct laser engraving, new application areas have moved into the foreground. As a result, HELL now sees itself as a solution provider for gravure printing, embossing, flexographic printing and dry offset. The company's new perception of itself is likewise reflected by the new HELL website.



A fresh look: HELL's new website

But a picture is worth a thousand words! See for yourself at:

www.hell-gravure-systems.com



HELL

HQH PRO: TEST NOW!

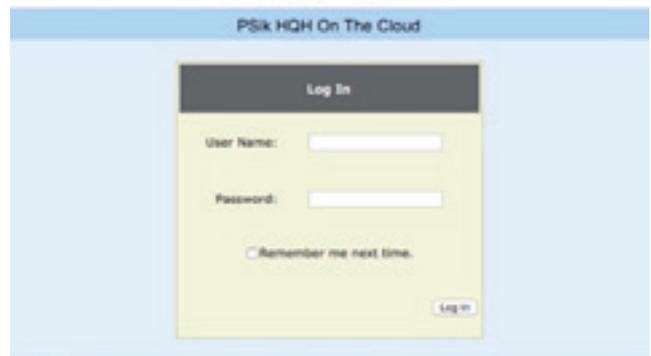
HELL Gravure Systems invites users to test its new software



Today, gravure printing reproduction requires significant manual intervention

during the pre-print process, especially in the case of fine lines and texts. The new HQH Pro concept helps automate and standardize part of this work. HELL now offers the opportunity to examine the new software easily and without obligation with a cloud-based solution.

Today, fine texts and graphic elements must usually be reprocessed in the pre-print process so that they are not too thin or completely disappear. HQH Pro software was developed to reduce this time- and resource-intensive work. HQH stands for High Quality Hinting. The new concept is based on high-resolution engraving data and improves the font quality of gravure reproductions with HelioKlischograph, XtremeEngraving, and Cellaxy. HQH Pro runs in the background, automatically carrying out post-processing without manual intervention. This is standardized based on the job ticket specifications, which makes it reproducible at



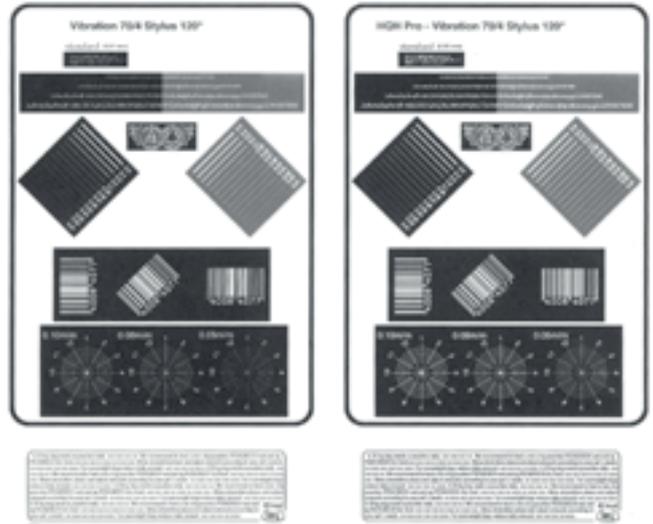
Enter login data here and test HQH Pro without obligation



HELL

any time. In contrast to popular pre-press tools, HQH Pro prevents the letters and contours from appearing closed. HELL's HQH Pro cloud service now provides the opportunity to try out the new software without obligation and convince yourself of its performance.

Request your access data under:
info@hqhonthecloud.com



HQH Pro improves the readability and appearance of fine texts and graphic elements



HELL

WHY ENGRAVING HEAD MAINTENANCE?

HELL offers comprehensive customer support for the highest possible availability of its high-performance engraving systems

Extraordinary performance is always demanded of HelioSprint engraving systems. But for consistently high engraving quality, regular servicing is essential.

The challenge: speed, precision, repeatability

HelioSprint engraving systems must deliver the highest possible performance on demand. They engrave 8,000 or 12,000 cells per second with a depth of up to 70 µm and a required accuracy of 1 µm! This precise repeatability must not only be maintained for each use of the cylinder, but also after engraving over 10,000 cylinders!

No ideal engraving system exists

An ideal engraving system would transfer an image signal with a 1:1 mechanical movement, e.g. the rectangular signal of a black-and-white transition. No error patterns like bouncing, tracing or thermal drift would occur. In practice, however, there is no ideal engraving system. Material properties, magnetic effects such as hysteresis as well as unavoidable manufacturing tolerances always lead in practice to deviations from the ideal transmission behavior.

Error compensation via fingerprint

HELL has developed a calibration process that



Error on the cylinder surface: Bounce



Error in printing: Bounce



HELL

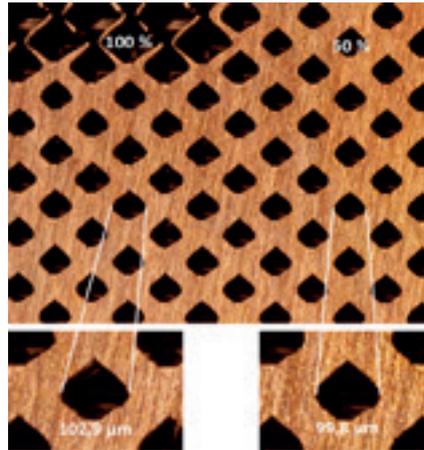
uses digital signal processing to compensate for deviations from the ideal. It records the characteristics of the engraving system with a variety of measurements and then determines a so-called fingerprint. The fingerprint is stored in a memory component of the engraving system. Before each engraving, the fingerprint is read out and sent to digital signal processors in the engraver. During the engraving process, the processors calculate a corrected image signal based on the individual fingerprint, which counteracts the error patterns (see above) of the respective engraving system.

The hazards of everyday life...

In daily production, the engraving system is exposed to various influences that can negatively affect its transmission behavior. Improper handling such as hard setting down, damage, dirt, cooling problems or also aging processes lead to changes in the characteristics of the engraving system. The use of non-certified engraving styli can also lead to this effect!

... HELL's solution

To ensure consistently high engraving quality, it is essential for engraving systems to be regularly serviced and returned to their factory default condition. The systems are taken apart and cleaned; defective or worn parts are replaced and the fingerprints are renewed. Systems requiring maintenance are subject to the same quality checks as new heads! After maintenance, another engraving process – with customer parameters if desired – is carried out.



Error on the cylinder surface: Drag



Error in printing: Drag



OHIO

TWO NEW SPECTRUMS FOR INDIA'S NO. 1

Technomec has successfully used OHIO engravers for years

Technomec Roll Manufacturing Company in Ahmedabad is the largest manufacturer of gravure cylinders in India. Spectrum engravers from OHIO have been an essential part of the Indians' path to success. This is reason enough for them to expand their capacity by two of the latest machines.

In March, OHIO product expert Kent Seibel visited the Technomec plant in Ahmedabad to introduce employees to the expanded functions of the latest generation of Spectrum machines, including Hybrid Engraving. Thanks to the Hybrid Engraving system, coating rolls with large engraving depths (115 µm) as well as laser-quality text can be produced. The Indian company greatly appreciates this. Founded in 1989, India's most important Indian manufacturer supplies cylinders to leading engraving and printing companies in India and exports cylinders throughout the whole world. "We are very satisfied with the high quality of the OHIO engravers," explained Amin Nehal, Managing Director of Technomec. And that high-quality training does not have to consist only of dry work, but can also be very carefree, is impressively proven by Kent Seibel's photos from the trip.





OHIO

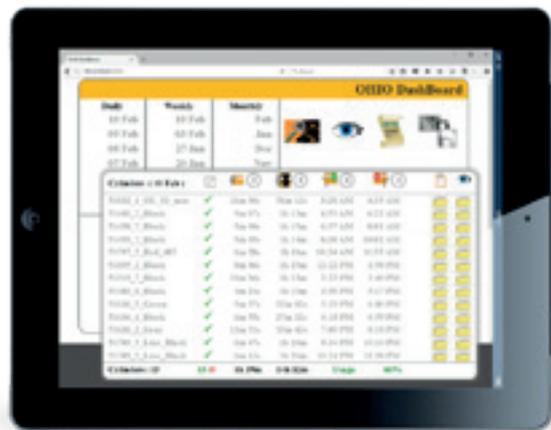
MONITORING ENGRAVING PROCESSES EVERYWHERE

New OHIO Dashboard available for smartphones

The OHIO Dashboard for monitoring engravers is an exciting new development for cylinder manufacturers, who can now manage their production processes better. All important parameters are visible at one glance, even from the road.

All production figures of OHIO engravers can now be centrally viewed on the OHIO Dashboard. The trick is that the clearly laid-out Dashboard can be accessed from almost anywhere: a desktop computer in the office, a mobile tablet or even a smartphone. The basic requirement is only an up-to-date, commonly used web browser on the respective device. Then, the currently operational OHIO engravers can easily be monitored, even from a distant site.

Another practical feature of the Dashboard is that it can display a compact summary of all engraving work completed during the previous day, week or month. It even shows all defective cylinders so that problems can be quickly resolved. Even the productivity of individual engravers can be quickly determined. The overview shows, for example, percentages that detail how long an engraving machine has already been in



operation. Daily reports can also be automatically sent by email. This makes the OHIO Dashboard a very useful companion for monitoring engraving systems.

Further information is available at www.ohiogt.com.



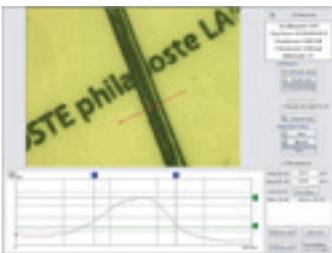
SCHEPERS

TRUE MULTI-BEAM TECHNOLOGY FOR DIGILAS DIRECT

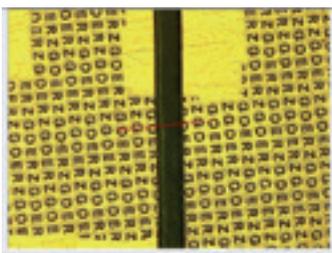
Schepers presents exciting new developments



One step and done! When it comes to effective laser engraving of gravure cylinders, this – in addition to excellent engraving quality, even with fine screens and high productivity – is a frequent request of Schepers customers. But its implementation is only one promising new development that the gravure-printing laser system manufacturer is presenting with its latest version of the Digilas Direct.



Translating the constantly increasing performance of lasers into productivity is a challenge for the Schepers development department. The key is transferring this high performance to the cylinder while still achieving excellent structure. Although higher laser performance can increase the amount of removed material, but this can sometimes be at the expense of engraving results.



With their new beam guidance concept, Schepers' development engineers have now created a remarkable solution that generates optimal power distribution to the cylinder surface – true multi-beam technology. This enables even fine structures to be engraved with high performance and optimal quality. The Digilas Full Control machine control system can already be used for multi-beam technology. Now, it has been expanded with new engraving software and hardware that can process up to 16-bit TIFF images. Different laser sources are available; these are operated with a new beam-management system and new high-performance optics. This allows the Digilas to be optimally configured for the customer's desired engraving results. In



Printing examples, e.g. microtext, 3D embossing printing



SCHEPERS

addition, Schepers convinces with a new, narrow double-focus head and new direct drive technology with very high positioning accuracy.

These new, advanced technologies allow the Digilas Direct to handle everything from the finest microtexts and microstructures, to standard deep and safety printing applications, all the way to absolutely continuous, up to 3 mm-deep 3D engraving. Schepers invites interested parties to test the quality and speed of the Digilas Direct for gravure printing, embossing or other applications at any time – and see for themselves!



K.WALTER

CHROMIUM TRIOXIDE – WHAT’S NEXT?

News and status on the REACH authorization of CrO₃ by the EU

The authorization of CrO₃ is immensely important for the gravure printing industry. With significant participation by the Heliograph company K.Walter as well as the ERA (European Rotogravure Association), leading European companies are driving this process in the EU. Here’s the current situation.

Together with the EU Member States, the EU Commission is still hard at work on the authorization of CrO₃ for the gravure cylinder manufacturing industry (some other applications for special and individual applications have already been successfully adopted). The next decisions for gravure printing in the Functional Chrome Group are planned for June 2017. Whether something will actually be decided at this time is not certain. If not, the authorization decision could first be announced after the deadline for CrO₃ use on September 21, 2017 (sunset date).

For all downstream users who are directly or indirectly supplied by the seven applicants and their distributors, such as K.Walter, nothing would change at first. They could continue usage until the final decision of the European Commission; further use of CrO₃ by K.Walter customers is thus ensured.

If the authorization is definitively granted, downstream users, including K.Walter customers would have to report their use of chromium trioxide to the ECHA. This would have to happen within three months after a company received a delivery of CrO₃ with the new safety data sheet, including authorization number. It would be obligatory for the company to comply with the conditions, which will be part of the authorization document.

To ensure that users in the gravure printing industry carry out the correct actions, K.Walter and the ERA will write a detailed manual describing all processes as well as all regulations that must be observed.



DAETWYLER

EVEN HIGHER POLISHING STANDARDS

Daetwyler Graphics' newly developed HelioMicrofinishing belt convinces

The newly developed HelioMicrofinishing belt for cylinder-surface polishing from Daetwyler Graphics is precisely coordinated with the company's own polishing machines. It is also a very good value for the money.

Compared to market standards, the new HelioMicrofinishing belt wins over users with its improved results when it comes to precise cylinder surface polishing, especially in regard to homogeneity and handling. Daetwyler Graphics engineers achieved this through an extremely optimized selection of the grains. The precise belt guidance – enabled by optimally coordinated construction – is also responsible. No – or very few – program adjustments are needed to use the new Heliograph polishing belts. They offer high process reliability even after years of service. They are recognizable at first glance due to the label imprinted on the belt, packaging and label. Daetwyler specialists are happy to answer additional questions about the new HelioMicrofinishing belt on-site and create workflow-optimized polishing programs if desired.





DAETWYLER

HelioMicrofinishing			Microfinishing-Film (3M)	
<u>Artikel</u>	<u>Produkt</u>	<u>Verpackung</u>	<u>Artikel</u>	<u>Produkt</u>
601060	<u>HelioMicrofinishing</u> 9µ 100mm 50m	4 Rolle/Box	087638 600172	<u>Microfinishing-Film</u> 9µ 272L 100mm 50m <u>Microfinishing-Film</u> 9µ 262L 100mm 50m
601061	<u>HelioMicrofinishing</u> 15µ 100mm 50m	4 Rolle/Box	087637 214279	<u>Microfinishing-Film</u> 15µ 272L 100mm 50m <u>Microfinishing-Film</u> 15µ 262L 100mm 50m
601062	<u>HelioMicrofinishing</u> 20µ 100mm 50m	4 Rolle/Box	087636 600210	<u>Microfinishing-Film</u> 20µ 272L 100mm 50m <u>Microfinishing-Film</u> 20µ 262L 100mm 50m
601063	<u>HelioMicrofinishing</u> 30µ 100mm 50m	4 Rolle/Box	087634 600225	<u>Microfinishing-Film</u> 30µ 272L 100mm 50m <u>Microfinishing-Film</u> 30µ 262L 100mm 50m
601064	<u>HelioMicrofinishing</u> 40µ 100mm 50m	4 Rolle/Box	087635 600229	<u>Microfinishing-Film</u> 40µ 272L 100mm 50m <u>Microfinishing-Film</u> 40µ 262L 100mm 50m
601065	<u>HelioMicrofinishing</u> 9µ 200mm 50m	2 Rolle/Box	109774 600475	<u>Microfinishing-Film</u> 9µ 272L 200mm 50m <u>Microfinishing-Film</u> 9µ 262L 200mm 50m
601066	<u>HelioMicrofinishing</u> 15µ 200mm 50m	2 Rolle/Box	109776 214280	<u>Microfinishing-Film</u> 15µ 272L 200mm 50m <u>Microfinishing-Film</u> 15µ 262L 200mm 50m
601067	<u>HelioMicrofinishing</u> 20µ 200mm 50m	2 Rolle/Box	129821 600227	<u>Microfinishing-Film</u> 20µ 272L 200mm 50m <u>Microfinishing-Film</u> 20µ 262L 200mm 50m
601068	<u>HelioMicrofinishing</u> 30µ 200mm 50m	2 Rolle/Box	109778 600228	<u>Microfinishing-Film</u> 30µ 272L 200mm 50m <u>Microfinishing-Film</u> 30µ 262L 200mm 50m
601069	<u>HelioMicrofinishing</u> 40µ 200mm 50m	2 Rolle/Box	109780 600419	<u>Microfinishing-Film</u> 40µ 272L 200mm 50m <u>Microfinishing-Film</u> 40µ 262L 200mm 50m

Overview of HelioMicrofinishing belts for the corresponding 3M Microfinishing films

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ABOUT HELIOSCOPE

Always with our finger on the pulse of time. Ascribing to this motto, we continually keep you informed about current developments, products and services of the Heliograph Holding companies. In practical, customer-oriented and worthwhile terms.

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