



DAETWYLER

CFM – a magic word in India as well

The material dreams are made of

HELL

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OHIO

Unique quality for every need



## CFM – a magic word in India as well

### Successful gravure cylinder manufacturer continues relying on Daetwyler Graphics

**At Afflatus Gravures, one of India's leading gravure cylinder manufacturers, signs of further growth are good. With four production sites in the country, Afflatus wants to be close to its customers. To respond to their wishes even more precisely and flexibly, the company decided to invest in three additional CFM rotary and polishing machines.**



CFM 1610

Aided by these investments, Afflatus Gravures wants to consistently streamline its entire working processes and respond more flexibly to growing customer demands. After its outstanding experiences with the Daetwyler Graphics CFM, the Indian gravure cylinder manufacturer's repeated choice was logical and fast. The company specifically praised the CFM's highly precise turning and polishing results. One push of a button creates superior copper cylinders that fulfill the

highest engraving requirements. The CFM polishing stone and polishing belt modules guarantee that Afflatus easily reaches the quality of the copper surfaces desired by customers. In this manner, customers achieve the optimal printing conditions – coordinated to the respective materials. Another crucial advantage is that measurement, turning and polishing units are individually programmable. This facilitates fully automated workflows that require no operator intervention.

All in all, constant and convincing results, optimal reliability and maximum flexibility have again convinced Afflatus Gravures, one of the Indian market's leading gravure cylinder manufacturers, to again invest in the Daetwyler Graphics CFM.



## The material dreams are made of

### Daetwyler Graphics helps Vlisco implement highly complex batik designs

Dutch clothing manufacturer Vlisco had a highly demanding task for Daetwyler developers. Its world-famous Africa Print fabrics – produced and printed using a complex wax procedure – presented the CFM P1610 with great challenges. A creative solution was needed.



Vlisco does not need to fear any comparison with well-known fabric producers and designer brands. In its target market of north and central Africa, people are proud to wear and display the Vlisco logo. This is also due to the secret, highly complex procedure Vlisco uses to make these fabrics. The printing form for the wax that is applied to the fabric requires greater-than-normal depth and must also realize large images. This complicates subsequent removal of the engraving image from the cylinders in preparation for reuse.

Vlisco approached Daetwyler Graphics to help them with this task – and of course, it was not one that Daetwyler engineers were about to ignore. After all, it let them prove their great

expertise. The problem? The large patterns are lasered and then etched 350-450  $\mu\text{m}$  into the copper cylinders – ten times as much as conventional engraving depths of 30-50  $\mu\text{m}$ . In general, the maximum material removal of a CFM is 150  $\mu\text{m}$ .

As usual, Daetwyler developers solved the puzzle with a highly intelligent approach: creating a new turning tool. This required the appropriate adjustments to the tool holder and its placement. The entire process at Vlisco, after all, behaves differently than when a conventional CFM is used. After turning off the engraved image for the final form, only the cutting tool needs to be changed. With two HelioGrind(C) polishing stones, the developers finally ensured that the rotary grooves were eliminated and the desired surface roughness achieved. In this manner, Daetwyler Graphics ultimately designed a CFM P 1610 for a depth of up to 600  $\mu\text{m}$  (1 $\mu\text{m}$  = 0.001mm) per rotation. Vlisco is pleased with this convincing concept that fully meets its customers' requirements and simultaneously saves enormous costs.



## New perspectives with XtremeEngraving

### White background printing saves engraving cylinders

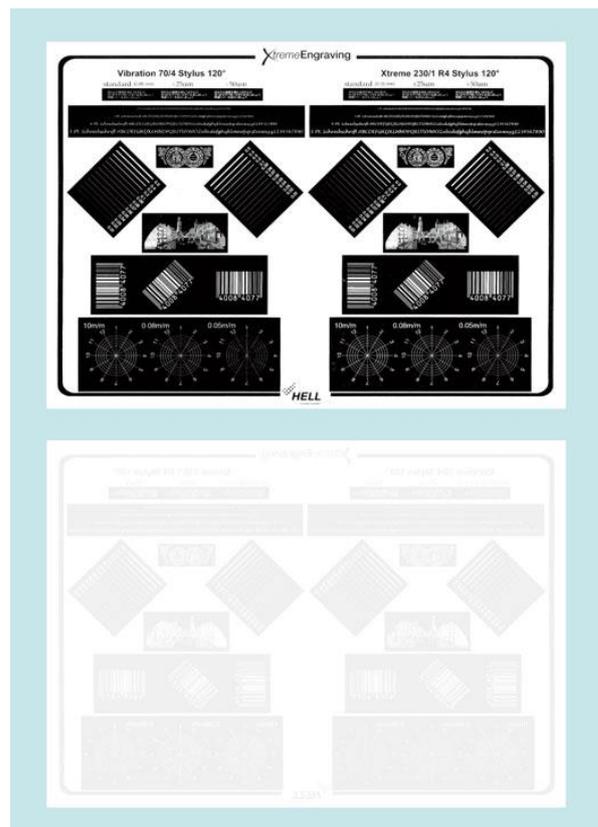
**HELL Gravure Systems' XtremeEngraving system has opened up a new field of application: engraving coarse screens on transfer rollers to enable white background printing. Under certain conditions, one white cylinder is all that's necessary with XtremeEngraving. Conventional engraving, however, usually requires two printing cylinders.**

The primary characteristic of XtremeEngraving is its separation of write resolution and engraving screen. In principle, the HelioKlischograph behaves like a laser image setter.

XtremeEngraving is used in flexible packaging, among other things, to produce extremely high contour definition combined with high print density. For such applications, etching times with XtremeEngraving are often only 1.6 longer than conventional engraving times.

A relatively young application field for Xtreme-Engraving is the engraving of coarse screens. This procedure allows cross-diagonal engraving of up to 1 mm and engraving depths of about 100 µm. Classic application areas for this are the transfer of coatings and adhesives. Recently, the enhancement of packaging through the application of haptic coatings has also come into focus.

Another example of the successful use of coarse screens with XtremeEngraving is that if white background printing requires a great deal of color, this can generally be achieved with only one white cylinder. In conventional engraving, two printing cylinders are often required. This enables much more cost-effective engraving processes.



*The back-cover white deposit (below) leads to a significantly more memorable print image (above).*



## HELL PremiumFlexo: new washer for plates and sleeves available

**HELL Gravure Systems, Kiel / D and Flexo Wash, Skødstrup / DK, have developed a washing system for quick and easy cleaning of directly engraved elastomer forms.**

The washing system is the perfect addition to PremiumFlexo. It enables automated cleaning based on preset parameters. The process steps cleaning, rinsing and drying are controlled by microprocessor. The thorough and gentle cleaning of the printing forms is done with an eco-friendly, water-based cleaning liquid and special brushes. Thanks to the special filter technology, the cleaning liquid is easily reusable and is accordingly operated in a closed cycle. Clear water is used to remove the remaining liquid.

The washing system is available in the form of several devices for plates and sleeves. Technical details and available formats see our website [www.PremiumFlexo.de](http://www.PremiumFlexo.de).

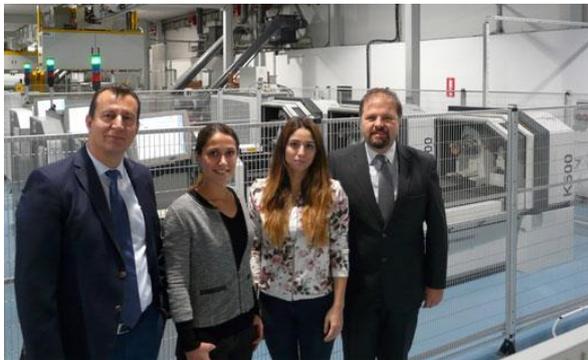




## Already seven K500 installed at Bakioglu Holding from Izmir

**Heliograph is pleased about the success of Turkey's leading industrial group**

**Heliograph exceeds daily limits. For one, because its specific competence in rotogravure cylinder production is prized globally. For another, because its highly specialized products leave some performance barriers in the dust – like the HelioKlischograph K500 engraving output device. An exciting example of how customers around the world use this product expertise for their success is the Turkish Bakioglu Holding, which has seven installed devices.**



*Gravure International in Turkish Izmir: Managing Director Ender Özmergen, Production Engineer Didem Gül, Process Engineer Ilkin Soylu, Production and Maintenance Manager Kadir Camci (from left to right).*

At 24 kHz, the HelioKlischograph K500 is the fastest and most successful engraving machine for the packaging market ever built. Developed by HELL Gravure Systems, the K500 is consid-

ered the benchmark in its class. It thus represents the high degree of competence that unites the companies of the Heliograph Holding and stands for their quest to develop customized, reliable solutions. But Heliograph is not content to rest on these laurels. On the contrary – its permanent dialog with customers from all over the world helps it even better adapt its products to high demands on site. This also applies to the Turkish Bakioglu Holding: with 11 locations, Turkey's leading corporate group of companies for the production of flexible packaging.

Bakioglu's subsidiary Gravure International is already using seven HelioKlischograph K500s. Since the company became a full subsidiary of Bakioglu Holding in 2001, it has made extensive investments to become Turkey's leading manufacturer of gravure printing cylinders. At the company's 16,440 m<sup>2</sup> site in Çigli (Izmir province), 210 employees produce high-quality gravure cylinders. These are made not only for the Turkish market – 15% are exported, primarily to countries in Europe.

Of the seven HelioKlischograph K500s in the Gravure International machine park, there are four K500 Twain. The sustainability of continuous operation and the quality of the HELL service have repeatedly convinced Gravure International to decide on the HelioKlischograph K500. As the main advantages of the machine, the company lists its compact design, easy operation, TIFF data engraving, setup via job ticket, PC control, touchscreen operation, integrated self-diagnostics, remote diagnosis via modem, job preparation with HelioDisk, automatic test cut with CellGuard, double engraving speed with the HelioSprint engraving head, automation using Helio robot functionality and circle line or helix engraving.

Gravure International is on course for expansion. Therefore, Heliograph is pleased to help its Turkish partner in the future with additional HELL

HelioKlischograph K500s. Currently, the production capacity of Gravure International is approximately 15,000 steel core cylinders and approximately 50,000 cylinders for plating and etching with conventional standard and fully automatic AutoCon systems. The company also has a laser engraving system for orders from the tobacco industry or for security printing, embossing and label orders. The warehouse has space for 7,000 cylinders, which are reserved for customers from all over the world.

A further special feature: for some of its customers, the company also provides repro services. The 16-member repro department has the best setting systems and a highly experienced team that achieves the highest quality standards.

Gravure International also has a first-class R&D department and performs all applications in the course of its research and development activities.

The company is also a pioneer in another area. It attaches great importance to environmental protection and has the largest chemical sewage treatment plant in the entire industrial area. The company is proud to announce its completion of ISO 9001:2008 quality certification and ISO 14001 environmental certification from Bureau Veritas (BV). It is currently in the certification process for labor protection certification based on OHSAS 18001.

This makes the Turkish Bakioglu Holding a very forward-looking corporate group with high growth potential. It is one example of the many customers around the world who rely daily on Heliograph's outstanding products and first-class comprehensive solutions to secure and expand their medium- and long-term success.



## High Performance Package for Cellaxy

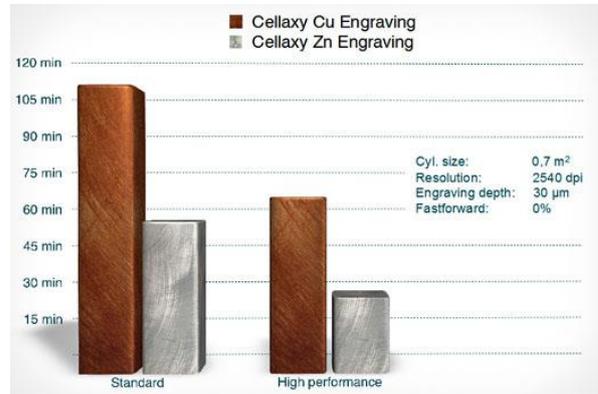
**Almost double the performance for direct laser engraving – now available!**

The Cellaxy direct laser engraver from HELL Gravure Systems is the ultimate and universal laser tool for the direct engraving of metal cylinders. The new “High Performance Package” increases its performance even more. And the best thing? Previously installed systems can be retrofitted.

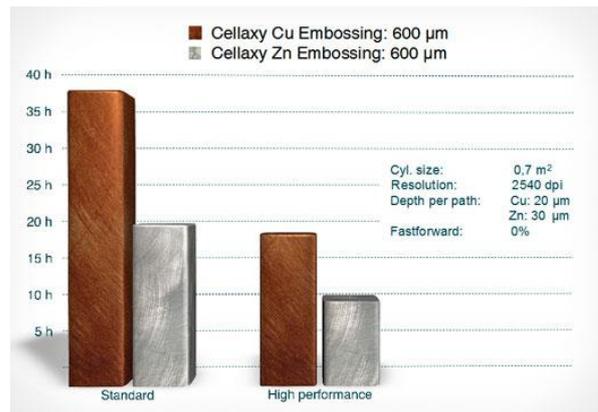
No one who wants high-quality linework can get around Cellaxy. This applies to flexible packaging, labels, cigarettes as well as to packaging for the cosmetic and pharmaceutical industries. In this regard, Cellaxy consistently exhibits its strengths. But Cellaxy requires no changes in the copper process and ideally complements the Helioklischograph, the standard output device for gravure printing on packaging.

The advantages of gravure forms lasered with Cellaxy are obvious: sharp and smooth contours, flexible adaptation to printing substrates and color systems, and seamless integration into the existing HELL prepress.

In addition, 2D and 3D embossing forms lasered with Cellaxy are just as convincing. The specially designed embossing machine completes fully automatic multi-pass engravings with an engraving depth of up to 800 µm. Regarding quality, availability and production speed, Cellaxy thus exceeds all established milling and laser technologies.



Comparison of engraving times of a typical gravure cylinder: “Cellaxy Standard” and “Cellaxy with High Performance Package” option



Comparison of engraving times of a typical gravure cylinder: “Cellaxy Standard” and “Cellaxy with High Performance Package” option

Now, HELL Gravure System goes even further. The just introduced “High Performance Package” nearly doubles Cellaxy’s performance capability – when engraving gravure cylinders or lasering embossing forms. The “High Performance Package” is now optionally available for Cellaxy. Previously installed systems can be retrofitted.



## A bright future

### CuMax GII integrates new cylinder production features

Since 2008, a central part of every state-of-the-art cylinder production process: the established K.Walter copperplating procedure with insoluble anode – better known as CuMax. Now, CuMax includes new, innovative features. Result: the all-new CuMax GII generation.



*CuMax GII - the new generation*

K.Walter has always been solidly oriented towards the future. Ultimately, the research and development of innovative galvanic systems is one of the company's priorities. Firmly established on the market, the CuMax procedure has long exemplified this focus. It guarantees clean work areas without copper granules. All solution processes take place outside of the system. The high coating speed of CuMax and its more uniform copper deposition are much more convincing than conventional procedures.

The new generation of CuMax, CuMax GII, combines these well known benefits with new improved features and makes the process even more exciting for users:

- Significantly easier operation
- "One Component" hardness additive system
- Significant savings in the use of hardness additive
- Chloride-free electrolyte

CuMax GII has already successfully passed practical testing: ten systems have already been installed and are now productive. All companies now using the CuMax GII copperplating procedure are very pleased with the results and benefits. And by the way: existing CuMax systems can be upgraded for CuMax GII to benefit from the new generation features.

We would be delighted to provide you with more information on CuMax GII. Please contact us at: Maschinenfabrik K.Walter GmbH & Co. KG, Tel: +49 89 785 96 0 or [sales@kwalter.de](mailto:sales@kwalter.de)



## A night in Bangkok

### User seminar for Thai print companies found great resonance

The complete value chain of modern rotogravure cylinder processing was the exciting subject of a well-visited user seminar – 90 participants – put on by Techno Global Graphics in Bangkok.

Kaspar Walter, Daetwyler Graphics as well as HELL Gravure Systems were there.

Markus Amendt from K.Walter caused a stir when he presented the new, fully automated cylinder production line “AUTOCON-LINE”. “This production line is a special highlight,” Amendt said enthusiastically.

The AUTOCON-LINE has three basic configurations: “Copper”, “Copper-Engraving- Chrome” and “Engraving-Chrome”, to which “Copper-Engraving-Laser-Chrome” will be added in the future. The lines can produce 60 to 120 cylinders per day and can be modularly expanded at any time. Designed for hollow cylinders, these fully automated lines impress with such features as lower maintenance costs and higher output. Other lectures by colleagues from the Heliograph companies were also well received. They focused on the importance of the correct cylinder surface treatment and on the latest developments in imaging.

The impressive celebration of the 15-year anniversary of Techno Global Graphics served as a proper conclusion of the conference. For this, Chotikarn Kosol, Managing Director of Techno Global Graphics, received a small thank-you present – a picture of an AUTOCON-LINE.



*Attendees listening to a presentation during the seminar*



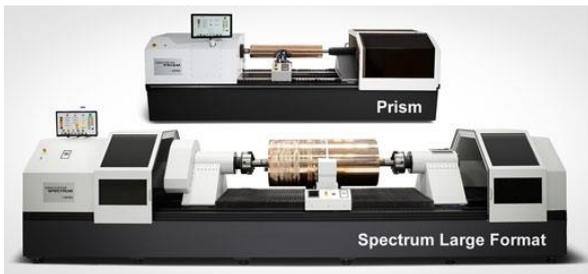
*Presentation of gift: C. Kosol (right), M. Amendt (left)*



## Unique quality for every need

### OHIO expands its high-quality range of engravers by the Spectrum Compact

The perfect engraving machine for each challenge and every purse – OHIO Gravure Technologies lives up to this claim. For the 2016 drupa, the company is complementing its powerful Spectrum engravers – which feature many automatic functionalities – with the Spectrum Compact model.



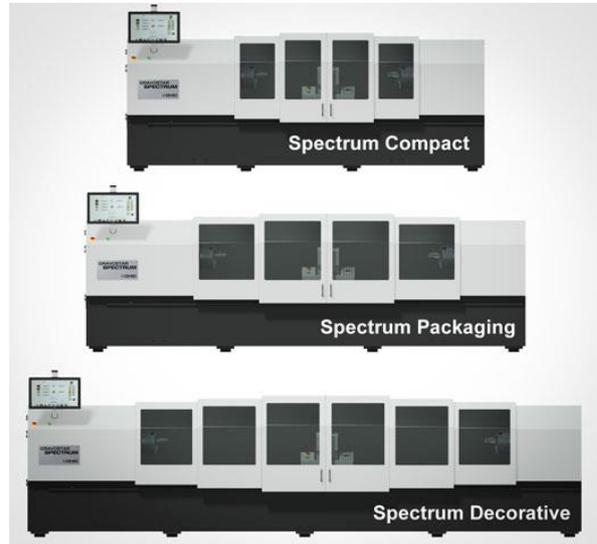
The OHIO Prism engraver and Spectrum Large Format Engraver

OHIO Gravure Technologies' wide range of unique engraving machines begins with its low-cost, entry-level Prism engraver. At the opposite end, OHIO offers the Spectrum Large Format for special large-format applications.

Which machine best fits your needs?

Spectrum engravers offer many functions, but not all are necessary for every application. The Prism does without this functional diversity but scores with a simple, user-guided procedure and a lower entry price. It was therefore developed for companies with tight budgets and strictly according to economic aspects. But because many of its electronic components are identical with those of the upscale Spectrum machines, the Prism

engraver has all the reliability, practicality and quality of its bigger brother.



OHIO Graviermaschinen Spectrum Compact, Packaging and Decorative

Fits every requirement: Cylinder sizes of OHIO engravers

	Circumference	Total length
Prism	1200 mm	1900 mm
Spectrum Compact	1525 mm	1400 mm
Spectrum Packaging	1525 mm	2350 mm
Spectrum Decorative	1525 mm	3600 mm
Spectrum Large Format	Customized	Customized

The special attraction: All engravers can be equipped with the high-quality Hybrid Engraving option that creates first-class printing results. Hybrid Engraving lets you optimize line templates as well as halftone images and even tone-in-tone images and engrave them in a single pass.

Contact your local OHIO dealer for detailed information. The Spectrum Compact Engraver will have its public premiere at the 2016 drupa. Eager visitors are expected.

