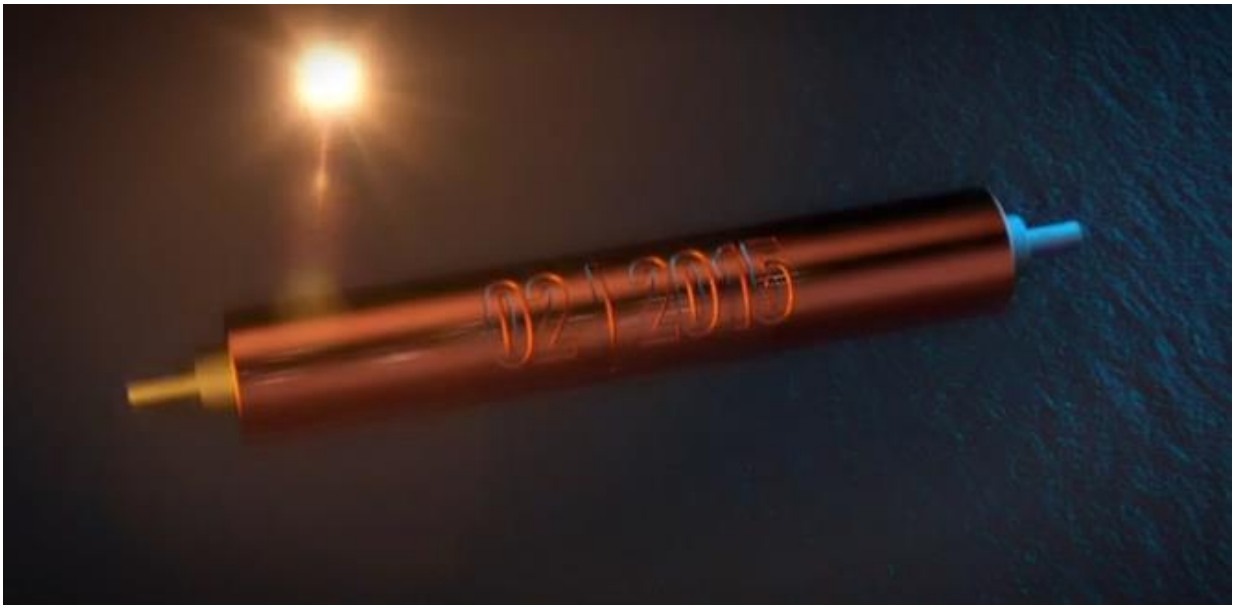
helioscope NEWSLETTER
The e-topics of Heliograph Holding
ISSUE 2015 02



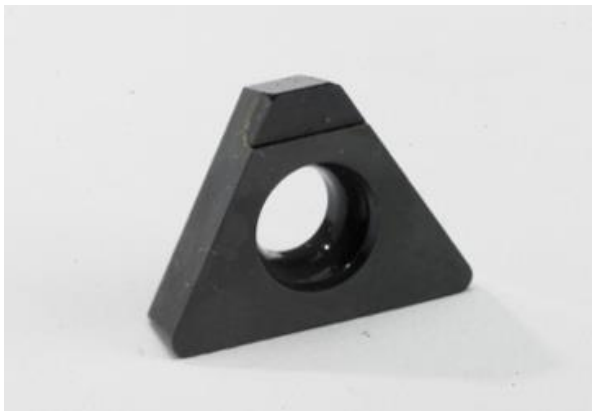
Daetwyler Graphics

Success in Turkey!

Daetwyler Graphics' CFM P1610 convinces the market

The economic growth of Turkey's printing industry is undiminished. Daetwyler Graphics is also participating in this. In 2014 alone, nine CFM surface finishing machine for the package printing industry were delivered in Istanbul, Izmir, Ankara and in the southeast Anatolian city of Gaziantep.

With this high market share, the CFM P1610 Plus is the undisputed champion in the league for surface preparation machines in Turkey. Likewise impressive is the fact that all notable cylinder manufacturers have decided for the machine "made in Switzerland" due to the increased productivity and improved quality it offers. Whether needed for manual cylinder manufacturing processes or fully automatic lines, the CFM can be easily integrated anywhere. Many customers who learn about the many applications of the CFM from Daetwyler Graphics decide to order several machines at once. This trend seems to be continuing this year as well. In connection with the consumables made especially for the machine, such as HelioGrind grinding stones and cutting plates such as the DG T-CUT-CFM, customers are as well prepared for economical cylinder finishing as possible – not only in Turkey.



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Daetwyler Graphics

DG Cupro Hard Powder Summer Promotion

15 percent discount on all June 2015 orders

DG Cupro Hard Powder is a recognized product in copper galvanics. Many customers are long-time users of this efficient copper hardness additive in powder form. We are now rewarding this faithfulness.

DG Cupro Hard Powder is used as a hardening additive in acidic copper electrolytes. It leads to the formation of smoother, finer crystalline, harder and more ductile copper layers. DG Cupro Hard Powder enables the transfer of base layers that are only several hundred microns thick, as well as of extremely thin engraving layers.
The powder form of this additive reduces transport costs and simplifies application. One aluminum pouch of DG Cupro Hard Powder (35g) gives 10 l of ready-to-use additive – without troublesome weighing or dosing!

The advantages of DG Cupro Hard Powder at a glance:

- Achieves a hardness of 190-220HV
- Chloride-free
- Effective even at very low concentrations
- No by-products develop. Regular treatment with hydrogen peroxide and active coal are unnecessary
- Lightweight powder reduces transportation costs
- Aluminum pouch has excellent storage life
- Easy handling – one pouch gives 10 l of ready-to-use additive

As a thank-you to our long-time customers as well as for those who wish to test this product, we are holding a summer promotion together with our suppliers.

During the month of June, all orders for DG Cupro Hard Powder receive a 15 percent discount.

Daetwyler Graphics

The 1st Heliograph Holding Laser Innovation Days 2015

Highly acclaimed industry event in Bad Soden

The first joint laser conference of all Heliograph Holding companies was held in spring 2015. Under the motto "For the Customer and With the Customer", all laser engraving systems were presented, including all upstream and downstream processes.

Over 110 international participants – from Spain, Turkey, Japan, Russia, India and even Saudi Arabia – enthusiastically received the many interactive presentations and discussion groups at the conference. The interested specialists had the chance to experience the entire spectrum of laser cylinder engraving solutions from Hell, Schepers and Daetwyler. K.Walter supplemented the agenda by demonstrating innovations for zinc galvanics and presenting its laser finishing machines.

Cellaxy from Hell was also received with great interest due to the possibilities it offers for increased performance as needed by the customer. Schepers' Digilas machine won over conference attendees due to the many laser sources it can work with, which makes it useful for a wide range of applications. The Daetwyler LaserStar PFL was likewise found to be an impressive complete solution – suitable even for midtones. One of its features is selectable cell forms for optimum ink transfer of any colors and substrates.

The second phase of the conference promoted the active cooperation of the participants. User statements and discussion groups helped shape opinions and resulted in valuable suggestions for the audience. All in all, the conference was a very worthwhile event that we will gladly repeat!

Daetwyler Graphics

Obituary for Peter David Watson

We mourn our friend and colleague Peter Watson, who left us on Monday, March 23, 2015 after a lengthy and difficult disease

Peter began working for Daetwyler on January 7, 1987 as a service technician and sales consultant. Until the end, he directed the fortunes of MDC Daetwyler UK with his matchless and outstanding manner. Supported by his wife Suzy and both daughters, Peter passed away at home in the circle of his loved ones, at the age of 64.

At 36, Peter began working as a service engineer at Daetwyler under the leadership of the now retired Gert Stenvert. Numerous Polishmaster installations and some foreign deployments later, Peter was promoted to the position of branch manager of MDC Daetwyler UK in Swindon in 2005. He mastered this assignment with flying colors until the end. Peter succeeded in recruiting and training his designated successor Tom Dean (24) in good time. Heliograph Holding in its entirety took up the banner to give Tom and his customers all support possible so that he could uphold the high standards previously set by Peter. How well-loved Peter was by his customers, colleagues and friends was seen at the funeral on April 9 in the Kingsdown Crematorium, when no more seats were available for over half of the international mourners who had come to pay their last respects.

Peter David Watson

Interview:
Flex-Punkt Druckformen GmbH

The benefits of direct elastomer engraving are clear to all

Direct engraving of elastomer flexographic printing forms using two HELL PremiumSetter direct laser engraving systems is the focus of sales activities at the full-service company Flex-Punkt Druckformen GmbH in Melle. Increasing numbers of print shops, brand owners, and design agencies are opting to use cost-effective, high-quality, eco-friendly elastomer forms in the long term. Dieter Kleeberg spoke to Günther Weber, owner and Managing Director of Flex-Punkt.

Dieter Kleeberg: Mr. Weber, on your website, you define your company as "a prepress expert for ensuring the best possible start to production in packaging printing". What does this all involve?

Günther Weber: *We offer a full service to our customers, ranging from consulting for creative and technical planning of packaging and actual implementation of design ideas in high-quality sleeves and plates to accompanying proofs and print approval in-house, if required. We have creative staff who check the feasibility of end customers' designs and use their expertise to optimize these where necessary. Naturally, they often develop their own ideas for customers. The key thing is that all parties are involved from the beginning and there is a collective approach to generating success to ensure all process steps run smoothly and the end customers are then completely satisfied with the result.*

What packaging products are your printing forms in demand for?
Our reproduction and printing form production activities cover high quality application – except corrugated board, across all other flexographic printing sectors. We produce flexible packaging for customers from the food, pet food, cosmetics, and tobacco sectors. We also have preprint customers that use 1.14 mm thin-layer plates for high-end printing of paper webs, which are then laminated on corrugated board. We have a very strong position in hygiene products such as napkins, absorbent and washable tablecloths, and toiletries. Decorations for furniture, self-adhesive film, and wrapping paper are also a significant sector.

And to what extent are elastomer forms already used for these product segments?
*Since we've been engraving elastomer, this has been a feature of all the product segments mentioned from the beginn*ing.

If engraving is to take place at the end, do particular things need to be taken into account when transferring data in the reproduction phase?
No. Customers can supply the same data quality as for photopolymer imaging, as the engraving data isn't created till immediately before engraving. Till then, everything runs as usual – Esko

ArtPro is the main application, where the files from Adobe Creative Suite, Corel Draw!, other Esko programs, and MS Office are processed. We use CAD data for the printing form sheet layout and inserting printing marks, wedges etc.

You've been using direct laser engraving of elastomers since spring 2012. What has changed overall for printing form production at the company since then?
Our plate production has been fully digital since 1998. Laser imaging of photopolymer materials from all major manufacturers, for which two HELL HelioFlex units from 2001 and 2007 are used, among others, has now been expanded by direct laser engraving – in 2012 by a single-beam HELL PremiumSetter S1600, and one year later by a dual-beam HELL PremiumSetter S1700. The sales team has successfully widened its focus to include elastomer printing forms.

Nevertheless, you also invested in photopolymer technology once again in 2013 …
Yes, in a Kodak FlexCel NX laser imagesetter. Having regard to our customer base, we will not and cannot neglect photopolymer plates. And FlexCel NX helps us in particular when high quality is required. HELL PremiumFlexo technology, which we use to engrave elastomers from Ligum, Contitech, and Böttcher, also offers this advantage.

With photopolymers and elastomers in production at the same time, the digital proof also has to be adapted to both lines …
That's no problem with our GMG FlexProof. GMG Color has been delivering accurate true-color proofs with authentic screen dot/dot gain simulation from 1-bit TIFF data in flexographic and gravure production for many years. We harness this to control our Epson Stylus Pro inkjet printer using the relevant color profiles.

And if special materials such as transparent foil and aluminum are to be printed on?
Then we produce these proofs on our Epson WT.
How do you win customers and orders? Who do you address and how?
Our proactive sales activities involve us, as a prepress service provider, approaching print shops and end customers, i.e. brand owners and design agencies, and, if we get the "ok" for a job, getting everyone around the table so that we have the feasibility and details of the data stream and dates under control from the get-go. Naturally, we're also often chosen by printers ourselves and then the printer usually organizes the "round table". It isn't uncommon for ink and foil manufacturers to also be involved at this stage. In the case of print shops with their own foil extrusion operations, their specialist will definitely be involved.

How important is direct engraving of elastomer in sales?
We wouldn't recommend anything we weren't convinced about just to have the two lines working at full capacity. We always keep an eye on the quality of the end product – the printed packaging – and increasingly recommend elastomer in discussions with customers with complete con-

fidence. This is particularly true for producing continuous seamless sleeves as, alongside the quality and cost benefits, there's a further, entirely straightforward reason – the short lead time for elastomer sleeves is ideal. We're supplied with the engraving-ready sleeves within just a few days. Waiting times for photopolymer sleeves, on the other hand, would sometimes be so long that they would exceed the target press date. And the question of price becomes more secondary or even irrelevant, as elastomer is more cost-effective in printing form production anyway.

What specific benefits of elastomer engraving do you communicate to printers and also end customers, who definitely do have an influence on printers?

We make a very clear distinction in relation to the quality features of photopolymer imaging. Photopolymers are imaged using the black masking layer, which is to be removed by the laser. This is not sufficient to control the relief depth and achieve the high quality expected. And engravable polymers are also the wrong material, as elastomers simply work more effectively and show better printing properties. Elastomer engraving enables us to work extremely precisely up to a relief depth of 550 or 600 µm. This isn't possible with photopolymer laser imaging – we couldn't use that to control optimization parameters such as undercut, first step, and shoulder angle. (The undercut requires a great deal of experience on the part of the printer and is therefore used very sparingly.) This is the only way we can always get up to a 60 l/cm screen without causing difficulties for printers.

We also naturally publicize the range of printable inks. Elastomers works with all inks – and this notably applies to aggressive ones, too. Very specific water-based inks may sometimes be better for printing with photopolymer due to the wetting effect that is manifested in the print image, but otherwise, elastomer is the first choice. This ensures printers are always on safe ground.

What about the green argument? In the printing industry, many print shops promote themselves with ISO 14000 certification, as their customers are increasingly focusing on this and even note in their publishing information that the product has been printed using green production methods …

Of course, we also use the environment in our sales arguments. And this is also becoming increasingly important for brand owners, not just for print shops. We already refer to the "green sleeve" in relation to elastomer sleeves. The environmental benefits are obvious – no chemicals are needed for cleaning in the process, which has been reduced to two steps. By dispensing with the various UV exposure stages – and thus also eliminating ozone – energy costs are also much lower. As a printing form manufacturer, we also benefit ourselves from these savings that we pass on to customers, and from the quick and easy process.

For printers, does switching from photopolymer to elastomer involve changes in the printing process? And how do you deal with any skepticism that may arise?

Skepticism is limited. Most printers are willing to listen when we talk about an optimized shape for print elements and lower dot gain for even better image, vignette, line art, and text quality. The ink is very smooth in the solid areas, fine vignettes work well, and both positive and negative text are excellent. Printers can work with largely un-

changed machine settings, they get to the OK sheet faster, and generate less waste.
As a printing form manufacturer, we, like printers, benefit from the high reproducibility of direct engraving, which not only plays a role in repeat jobs but enables a predictable level of quality overall. If printers can therefore rely on always getting exactly what they expect with an elastomer form and can then start printing without a trial run, switching to elastomer makes perfect sense for them.

How important an argument is the service life of elastomers?
Photopolymers can also last a long time. This depends on many factors, such as printers' skill and naturally the substrate, too; paper is always more abrasive. But elastic properties are fundamentally beneficial for the run sizes that can be achieved.
However, where we score highly is with the option of engraving elastomer material with an integrated compression layer. This printing form structure saves on costly foam adhesive tape and achieves at least the same print image, if not better.

HELL claims PremiumFlexo can be used to achieve greater contrast and more brilliant colors. What does this mean for ink consumption in combination with elastomer forms?
As a rule, the lower dot gain and the mechanical performance are beneficial to more economical ink consumption. High-quality flexographic printing necessarily results in more intense colors in print. However, I think it's even possible to satisfy the desire to save ink using engraved elastomers under optimum conditions.

How suitable are elastomers for the various ink systems and packaging materials?
We engrave in EPDM rubber, which is suitable for aqueous, solvent-based, and UV/EB-curing inks and coatings alike. With different EPDM elastomers, our printing form material then also varies in structure, hardness, and surface quality, depending on the application – with or without a compression layer, for both inks and coatings, for printing on hard packaging materials in particular, such as tubes, cups, and metal, or for coatings. The drying mechanism of ink, its elasticity and shrinkability, and its resistance to frost and heat play a role that shouldn't be underestimated. In principle, elastomers are suitable for all applications, as claimed by the manufacturers.

Special-effect pigments are also often required in flexographic printing. How do they work with elastomer?
They work very well with elastomer. As we're also active in the wrapping paper segment, the relevant customers regularly use elastomers for coatings with added special-effect pigments.

What are the respective production percentages for elastomer and photopolymer printing plates and sleeves?
The proportion of plates is now only 25 to 30%. Sleeves have thus grown to 70 to 75% – recently around 7500 a year. After just two and a half years, this technology has already reached a 50% share of the printing forms supplied, thanks to our two investments in direct elastomer engraving, and this figure is rising. The growing demand for sleeves and the availability of cost-effective elastomer sleeves go hand in hand – we have made the right investment.

Does the percentage distribution apply to all customers at home and abroad?
Yes, these percentages naturally apply to all the countries we supply to. Some 85% of our customers are in Germany, all the way down to southern Germany. But elastomer forms are equally popular with customers in Italy, Spain, Austria, and the Benelux countries.

This gives the impression that the sales team is preaching to the choir if you're looking to encourage printers to switch to elastomer …
No one can ignore the benefits of direct elastomer engraving. We've been able to persuade many existing customers to switch to elastomer pretty quickly. But surprisingly, we've been able to attract many new customers because they themselves have requested direct engraved elastomer! They are pleased to have finally found a local service provider that engraves elastomer. The number of HELL PremiumFlexo installations has now increased, but we've undoubtedly benefited from investing relatively early on.

You've been a HELL customer since 2001 and, as a result of various beta tests and installations, you've also become a very valuable one for the Kiel-based company. That shows an openness toward innovations and new approaches …
Even before 2001 – yes, Flex-Punkt has had a very good relationship with HELL for twenty years. We're very happy with the partnership that has developed over that time. The HelioFlex laser imagesetter has always been an outstanding product that has taken us forward.

But that by itself can't have been the decisive factor in opting for direct laser engraving with HELL…
We had no reservations, as HELL has an excellent name in direct engraving, and the failure of other suppliers to deliver is no reason to hesitate if you trust a company. Only a company like HELL, which has been a master of 3D gravure cylinder engraving for decades, can combine strengths and deliver flexographic engraving that hits the spot. As well as the engraving know-how, what was also important in our decision to invest in a HELL laser at that time was that HELL is the only option for imaging round forms, particularly in larger formats.

Your success has proved you right.
That's why we purchased a second HELL PremiumSetter in 2013.

To what extent is direct elastomer engraving suitable for printing luxury packaging or labels?
At the moment, we won't match high-finish folding cartons in sheetfed offset with an 80 l/cm screen …

… but flexographic printing makes up for its lack of support for fine screens by using FM and hybrid screens, and increasingly attractive flexographic printing in terms of quality and cost could also encourage some manufacturers of luxury branded goods to make the occasional flexible packaging, where appropriate, instead of a folding carton.
That can't be ruled out. It would require thin printing plates with small relief depths for fine details. Although we already have these, it's a real challenge for printers, though it's certainly already possible.

Do elastomer coating forms also feature in sheetfed offset at Flex-Punkt?
Yes, they've long been part of our everyday activities.

Is this equally true of embossing forms that can also be engraved using the HELL PremiumSetter?
This is currently being tested with customers in a project phase.

Mr. Weber, thank you for this very enlightening interview.

The interview was conducted by Dieter Kleeberg.

K.WALTER

A real bestseller: Ten years of SlimLine

Stable galvanic processes with standardized machine components

SlimLine galvanic systems can look back on over ten years of market success. Currently, some 2500 lines in 30 countries on nearly all continents are hard at work. Their high precision in all galvanic processes is especially convincing. These reliable, process-stable systems are equipped with standardized machine components and achieve optimum results in all disciplines.

SlimLine galvanic equipment saves space due to its "back-to-back" positioning. It can be operated as a single system or in automatic lines. The high immersion factor – up to 100 percent is possible depending on the cylinder circumference and process – results in a significant increase in capacity. SlimLine can be used to implement chrome, copper, degreasing, nickel, dechroming tanks and tanks for alkaline copper.

Despite this versatility, K.Walter has succeeded in equipping SlimLine galvanic systems with many standardized components. The company has pursued the 'standardized component strategy' for a long time and is continuously improving it. This strategy benefits customers by lowering running costs and storage expenses as well as by simplifying parts orders.

Usually, companies must go through complex processes to reorder wearing or spare parts. Many different parts must be identified and ordered based on their individual numbers. Without the 'standardized component strategy', each system also requires different parts – even though the component in question is found in every machine. The strategy also reduces time and expense for K.Walter, and we are happy to pass along these savings to customers. Take advantage of this standardization and profit from an attractive SlimLine package (listed below) with a price advantage of up to 45% compared to single orders of the respective components:

The wear-/spare-parts package for standard SlimLine tanks contains:

- Carbon brushes
- Current transfer rings
- Bulkhead sealings
- Cylinder sealings
- Cylinder bearings
- Anodes
- Electrolyte pumps

We are always improving the standardization of SlimLine tanks so that you can continue relying on our high precision in the future and significantly reduce your process costs.

Use this opportunity to save money and ask about a wear-parts package for your system.

K.WALTER

Important date

June 1, 2015 the new 2015 Dangerous Substances Directive (CLP/GHS) law came into effect

The most important objective of the directive is clearly informing consumers of dangerous chemicals. To aid recognition, all labeling has been standardized. The colors, formats and positioning of this information are now precisely defined.

Naturally, K.Walter follows these specifications as well and now presents its new state-of-the-art labels. They comply with all current safety regulations and fulfill the CLP/GHS requirements. In addition to gaining extra safety, our customers thus benefit from faster access to information and simplified ordering processes.

The new labels feature the required red danger symbols that replace the previous orange-colored ones. Moreover, a QR code is located at the lower right corner of the label. Scanning this code with a smart phone automatically displays the current safety data sheet of the product. These have also been newly classified and stored on an updated landing page. This ensures that you always have the most current version of the safety data sheet.

Now with QR code: the new K.Walter product labels

K.WALTER

Open for all questions

Markus Schödl: On-site competence for customers

Markus Schödl has worked in the gravure printing industry for over 15 years. Since early 2015, he has actively assisted customers on location.

With Markus Schödl as a valuable addition to the team, K.Walter now expands its services in the area of consumables and spare parts. After only a very short time, customers clearly accept and appreciate Markus Schödl as a dynamic, committed contact person with great technical expertise and sound advice. He brings many years of experience in the printing branch to his activities and is happy to answer all technical questions about gravure printing.

Markus Schödl

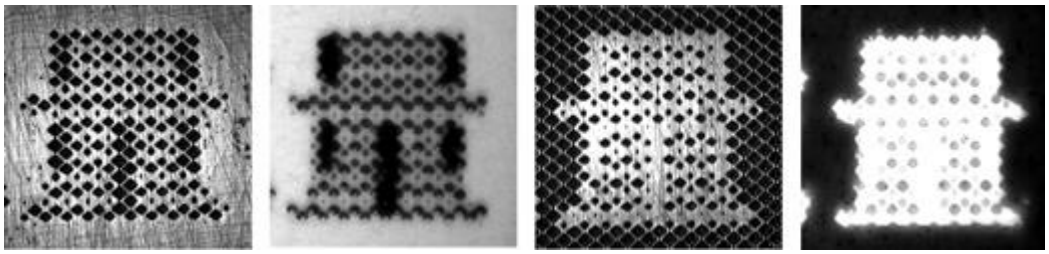
OHIO GRAVURE TECHNOLOGIES

Visibly superior

Continual process optimization for greater precision

Hybrid engraving is a complex procedure – one in which years of experience have given Ohio developers substantial know-how and expertise. They put this knowledge to work by continually optimizing the procedure. The result: visibly superior printing results compared to traditionally generated print templates.

A direct comparison of traditional engraving and the hybrid procedure. The upper row shows the results that can currently be attained with traditional procedures.



The lower row shows the same images. Ohio's continually optimized hybrid engraving procedure brings visibly better results.