

Gravure Global

**Edition
2021**

GRAVURE OF THE FUTURE



HD Gravure
The new quality standard for
packaging gravure

Fixed Colour Palette
7C in gravure printing –
is that even possible?

Packz and Cloudflow
Digital tools for seamless
gravure cylinder production

With the “Gravure Guide”
Where you can find gravure
suppliers and their products



Official Media Partner



ERA European
Rotogravure Association

BASED ON INNOVATION.



heliograph
HOLDING

Innovative old favourite

Just how enormous the spectrum across which gravure printing is used can be judged from the variety of places where we encounter its products in our daily lives, from the newsagent, to the supermarket, the pharmacy, our own kitchens or hotel bedrooms. According to the European Rotogravure Association (ERA), there are some 1200 gravure presses operating in Europe alone and every year more than 1.2 million gravure cylinders are produced.

Number one for packaging printing

It is in packaging printing in particular that the development of gravure has been really dynamic, and this is especially true in Asia, where gravure commands an 80% share of the flexible packaging market. In recent years, gravure has registered strong growth in the tiger economies of south-east Asia in particular. With nearly 1500 packaging gravure presses installed in Indonesia, Malaysia, the Philippines, Thailand and Vietnam there are almost twice as many operating there as in Europe. Over the last few years, packaging printers in Asia have invested heavily in modern gravure printing technology and Asia ac-

counts for a not insubstantial share of the record recent sales of the European press manufacturers.

Short runs

Gravure in particular has done well out of the current Corona crisis. The consequence of events being cancelled is that short packaging runs of special designs have given way to long runs of standard designs and a real boom for gravure. That being said, it is likely that once Corona is behind us the trend to frequent design changes and shorter runs will resume, and this will above all favour printing methods that are quick and flexible. However, this should be no problem for gravure. Over the last few years it has put its house in order and boosted its efficiency in both prepress and press down times. At the same time, the press manufacturers have also developed compact gravure presses that are ideal for shorter run jobs.

Consistent print quality

Gravure is well positioned as a result of numerous technical innovations in both printing and prepress. The fact that gravure is a technically simple process explains its dominance in the expanding markets



of Asia. It stands for high and reproducible quality and outstanding run length capacity. The technologies used for cylinder production are mature, can be controlled precisely and are fully automated. Over the years to come, this is an area where direct laser engraving will become increasingly important.

Provided that gravure is not only able to maintain its high technical standard but also to carry on optimizing the process, it should be able to retain its position in the printing markets of the future.

Sincerely

Ansgar Wessendorf
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Gravure - Redefined
THEA-9one8

 **KOHLI**

www.kohli.org | kohli@kohli.org

Thea-9one8: 2020's most anticipated gravure press

Kohli boosts growth, efficiency and innovation despite Mumbai's strict lockdown

Kaku kohli

"You don't make progress by standing on the side-lines, whimpering and complaining. You make progress by implementing ideas." Shirley Chisholm's words would never be more apposite than during the covid pandemic and the subsequent lockdown. As a family-owned gravure press manufacturer, the initial weeks of complete lockdown could have left us at Kohli whimpering. We had delivery commitments to meet and a stalled production line. Instead we collectively decided to make the most of this imposed pause.

The first phase was to re-organize our customer care department. With transportation at a standstill and complete uncertainty as to when travel would reopen, we had to prepare for remote installations so there would be no inconvenience to our customers or slowdown to their production. Along with this, we took a big step by introducing a simple plug-and-play modular approach to the design of our presses. Automation and digitization were enhanced and a step-by-step advanced online press maintenance system was created in order to make remote installation easier and to improve after-sales service. The second phase was to finally get around to achieving a personal goal. I took the opportunity to launch an online CafeGravure as a gateway and source of information for those interested in entering the flexible packaging industry.

For years I had felt that there was a need to educate young and curious minds with practical knowledge from experts in our field. The first session of CafeGravure was a phenomenal success as I was joined by industry experts, colleagues and students. The open Q&A format brought in over 500 participants over three CafeGravure sessions. It has been a privilege to bring the best and brightest minds from the industry together under one platform. The third phase was to restart production after seven weeks

of complete lockdown. Once Kohli reopened, we were super excited to complete the final touches to our latest gravure press: Thea-9one8. We had worked hard on this state-of-the-art press and wanted to share our excitement, whilst the marketing team went the extra mile and more to stage virtual trials of Thea-9one8. We wanted our valued customers to get a feel for how special Thea-9one8 was. We hosted proactive open houses where we happily answered questions and allowed participants to direct the camera so that they could take a close look at any specific feature they wished to see. I applaud my team, who worked tirelessly despite the continuing severe lockdown re-

strictions. Thanks to their efforts, we were still able to hold five open houses over this six-month period that attracted more than 1,000 participants from eight countries. Furthermore, over this same period, Kohli also successfully remotely installed 12 presses in four countries.

What makes Thea-9one8 so special?

After three years of intensive research and development and based on the feedback of press operators and maintenance engineers worldwide, Kohli designed "Thea-9one8". Sustainable, best-in-class productivity, always online and ready to embrace the industry of the future. Thea-9one8 is ahead of its peers. This environmentally friendly gravure press is compatible with water-based inks and can handle a wide range of flexible materials including thinner and recyclable films. Kohli has listened to press operators and with Thea-9one8 it has designed and manufactured the press that they have been calling for.

Thea-9one8: "Focus on EASE"

- Ease of job changeovers: shaft-less mounting of printing cylinders, interchangeable light weight ink trolleys and sleeve type impression rollers.
- Ease of registration: register pre-setting and set up of repeat jobs, high register accuracy at all speeds and fastest register correction during speed change and splice.



Source: Kohli

Kaku Kohli,
CEO of Kohli Industries



Gaia, an easy solution for solvent-free lamination

- Ease of production: maximum output with minimal downtime, manpower, wastage and energy consumption.

- Ease of information: live monitoring and live press updates any time, any place, any device.

- Ease of maintenance: predictive maintenance, interactive manuals and intelligent electronics for complete human-machine interaction.

Thea-9one8 is in a league of its own. Offering a wide range of personalization and customization options in co-operation with world leading companies such as:

- Electronic shaft integration from Siemens
- Register control from BST-Eltromat
- Web inspection from BST-Eltromat and Erhardt +Leimer
- Impression sleeves and Ink feed rollers from Rossini
- Viscosity controllers from Gama
- Electrostatic Asist (ESA) from Enulec
- 100% defect detection from BST-Eltromat and Futec
- LEL control from Honeywell and Nira

At Kohli we take safety very seriously. Thea-9one8 is equipped with:

- Active static discharge bars along the press with explosion-proof bars on each printing unit.
- Static monitoring at multiple positions along the press with pre-settable alarms.
- CO2 firefighting system with nozzles and temperature sensors at each printing unit.



The environmentally friendly Thea-9one8 gravure press is compatible with water-based inks and can handle a wide range of flexible materials, including thinner and recyclable films

- CE conformity following strict European safety standards.

Kohli is not just about Gravure. The company also offers:

- Gaia, an easy solution for solvent-free lamination.
- Athena, an advanced solution for solvent & water-based lamination.
- Hera, a multi-purpose laminator offering the perfect combination of multiple technologies.

Kohli offers a wide range of coating and laminating machines for diverse market needs and ever-changing customer applications:

- Solvent & water-based dry lamination
- Solvent-free lamination
- Water-based wet lamination
- Extrusion lamination (manufactured in partnership with Rajoo Engineers, India)
- Solvent & water-based coatings
- One-colour gravure printing
- In-register cold seal & heat seal application on pre-printed web
- In-register coatings on pre-printed web
- In-register (spot) UV coating on pre-printed web
- In-line laser (window) perforation for product visibility

- In-register one colour gravure printing on pre-printed web

- In-register (window) lamination of 2 pre-printed webs

- In-line gravure printing

- In-line triplex lamination of three substrates in one pass

- Automatic turret winders for non-stop production

Summary

Has manufacturing during an unprecedented pandemic been challenging? Yes, without a doubt. But Kohli faces challenges head-on. By utilizing the time to re-assess, re-organize and re-structure, Kohli was able to launch four innovative new machines as well as offering online and remote services in response to the current situation. Kohli continues to stage virtual open houses and looks forward to you joining us.

To register, e-mail us at openhouse@kohli.org. Moving forward, Kohli sees a bright future for gravure printing in the flexible packaging industry and will continue to set high standards for gravure presses globally.

Hera, a multi-purpose laminator offering the combination of multiple technologies



Athena, an advanced solution for solvent & water-based lamination





Graphische Technik und Handel Heimann GmbH

Hamm, Germany
www.heimann-hamm.de

Graphische Technik & Handel Heimann

Graphische Technik und Handel Heimann is specialized in individual process steps (electroplating, grinding, engraving) in the production of gravure cylinders. For these processes, based on our know-how, we have developed and optimized chemicals and consumables that are proven worldwide. In addition, we also manufacture high-precision measuring devices for quality control that are specially adapted for the gravure cylinders. Consumables and measuring devices for rotogravure press room as well as young second-hand machines complete our delivery program for rotogravure printing.

Products: Chemicals and consumables for gravure cylinder production, measuring devices for quality control, consumables for press room, second-hand machines.

More about Graphische Technik und Handel Heimann on the page 21



HELL Gravure Systems GmbH & Co. KG

Kiel, Germany
www.hell-gravure-systems.com

HELL Gravure Systems

HELL Gravure Systems – a Heliograph Holding company – is an innovation leader in the manufacture of prepress engraving systems. With its numerous technical solutions, HELL leads the market in its many core areas of expertise – the electromechanical and direct laser engraving of gravure and embossing cylinders as well as both direct and mask lasering for flexo, dry offset and any other form of relief printing. The latest industry highlights are HD Gravure, the new quality standard for packaging gravure, Helioklischograph K5 Smart, the AutoCon automated production line with Helioklischograph K500 systems, and the Cellaxy and PremiumSetter lasers.

Products: Electromechanical engraver and direct laser for gravure printing, Direct laser for embossing cylinder, Direct and mask laser for flexo, dry offset and any other form of relief printing.

More about HELL Gravure Systems on the pages Front Cover, 6, 18, 31, 44, 57, 59



HYBRID Software GmbH

Freiburg, Germany
www.hybridsoftware.com

HYBRID Software

With offices in Belgium, Germany, Italy and the US plus a global partner network, HYBRID Software is a software development company focused on innovative productivity tools for the graphic arts industry. HYBRID's products are used by hundreds of customers worldwide in all areas of pre-press and print, including labels and packaging, folding cartons, corrugated, wide format and digital printing.

Products: CLOUDFLOW workflow, PACKZ editor and integration products offer a unique set of advantages that include native PDF workflows, vendor-independent solutions based on industry standards, scalable technology and low cost of ownership

More about HYBRID Software on the pages 7, 36



Delivering excellence since 1972

KOHLI Industries

Mumbai, India
www.kohli.org

KOHLI Industries

Established in 1972, Kohli started its journey from a humble workshop in Mumbai, India and currently is one of the leading manufacturers of printing and converting machines in Asia.

With the ability and focus to offer efficient and well-designed machines and an emphasis on customer care, Kohli witnessed exponential growth and as of 2020, Kohli Industries has successfully installed more than 1,500 machines in over 32 countries.

Products: Gravure Printing Presses, Solventless Lamination Machines, Solvent based Dry Lamination Machines, Water based Wet Lamination Machines, Multipurpose or Combi Lamination Machines, Extrusion Coating and Lamination Machines, Slitting and Rewinding Equipment

More about KOHLI Industries on the pages 3, 40, Inside Back Cover

Authors of the issue

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has worked as Junior Communication and Social Media



Manager at Hybrid Software since the beginning of this year. Having moved to Germany after gaining her Master's degree in Advertising at the Bond University in Australia, she has tackled the challenge of learning German in beautiful Freiburg im Breisgau. An American citizen and avid traveller, Maryam values the importance of marketing and loves sharing Hybrid's stories with the world through various digital and print media. *"Higher Level of Automation at 4Packaging"*, p.36

Stefan Beilenhoff

has been a self-employed and independent management



consultant for the printing and packaging industry and its customers since May 2009. The main focus of his work has been on quality development and process optimization for prepress and printing in packaging production, spanning technical and production management consultancy for all components of the supply chain from design to packaging production in flexo and gravure printing. *"Ink savings using laser-engraved cylinders"*, p.44

Jan Breiholdt

has been engraving systems product manager for HELL



Gravure Systems since 1991. During this time, he has been involved in all the important developments in cylinder engraving, such as increasing the engraving frequency to 12 kHz or fully automatic cylinder

production with the AutoCon line. He has been involved in the direct laser engraving of gravure cylinders from the product concept to market maturity.

"HD Gravure – the new quality standard for today's packaging gravure", p.6
An all-purpose laser engraving system", p.18

Carina Engel

is a trained gravure and web offset print engineer. She has



been area sales manager for Daetwyler SwissTec AG since 2011, looking after customers for

doctor blades and printing technology. In 2018 Carina Engel took on responsibility for international sales projects in the field of consumables.

The doctor blade – a crucial factor in ECG", p.34

Dieter Heimig

is a freelance journalist specializing in the agricultural and



food industry and he has written for *Lebensmittel Zeitung*, the food industry's leading title in

Germany, for many years.

He has also published several articles in *Flexo+Tief-Druck*.

What brand owners expect from packaging printing", p.64

Gabriele Kirchmeier

has been working in the printing industry for over 25 years.



Her apprenticeship as an industrial master printer was followed by further education as a technical

business economist and by an MBA in the field of general management. After working internationally for many years in various packaging and

gravure printing companies, she founded her GK-Printberatung consultancy in 2011. Her work focuses on colour management, process optimization and project management.

"Gravure without proof printing" – does it work?", p.12

Kaku Kohli

is owner and managing director of Kohli Industries. This



Indian company was founded in 1972 and is one of Asia's leading manufacturers of printing and

converting machinery for packaging production. Kaku Kohli is the third generation of the family to run the company over its 48 years. To date, more than 1500 machines and lines (gravure presses, laminators, slitter rewinders) have been commissioned in 32 countries. *"Thea-9one8: 2020's most anticipated gravure press"*, p.40

Dr Eduard Neufeld

studied physics at universities in Cologne, Germany, Cardiff,



UK, and Jülich, Germany. He received a doctorate from the central institute for fundamental

semiconductor electronics at the technical university of Munich, Germany. Subsequently, he worked for BetaResearch GmbH and after that started a new job as a management and strategy consultant for technology companies at Boston Consulting Group. Since 2006, Dr Eduard Neufeld has been the Director of Fogra, the media technology research institute.

He is also a strong supporter of collective research, serving as the vice-president of the AiF (the German Federation of Industrial Research Associations) and AiF spokesman for the South German research associations.

"What will the package print shop of the future look like?", p.78

James Siever

has been Secretary General of the European Rotogravure



Association (ERA) since 2000. He has family connections in the printing industry and began

his professional career in 1982 as in-house lawyer for the Verband der Druckindustrie Nord in Hamburg and then for the then Bundesverband Druck in Wiesbaden. From 1987 he was managing director of the Association of the Aluminium Processing Industry and the European Aluminium Foil Association (EAFA) in Frankfurt/M. In 1992 he moved to the beverage carton industry, initially in the management of the Fachverband Kartonverpackungen für flüssige Nahrungsmittel (FKN) and ReCarton GmbH, which provides a guaranteed market for the recycling of beverage cartons, and then from 1995 as head of environmental and business development at Tetra Pak Deutschland GmbH. *"Gravure Printing in Europe – Status and Trends"*, p.62

Ansgar Wessendorf

is the Editor of *Flexo+Tief-Druck* at Ebner Media Group GmbH & Co.



KG. He took his first steps in this industry in 1986, when he started his apprenticeship as a

gravure cylinder maker, before successfully graduating as a printing engineer in 1996. He has worked in a gravure cylinder preparation department, as shift supervisor, and as a production manager. Ansgar Wessendorf has been with Ebner Media Group since 2001 as Editor-in-Chief of *Flexo+Tief-Druck*.

Gravure - Redefined

THEA-9one8

Delivering excellence since 1972



Web Width : upto 1500mm
Printing Speed : upto 450 m/min

Printing • Lamination • Coating • Extrusion • Slitting

 **KOHLI**

www.kohli.org | kohli@kohli.org