

Gravure at your fingertips

An introduction to gravure cylinder preparation and printing
with demonstrations and practical exercises

05 – 07 July 2017

at Stuttgart Media University

Stuttgart Media University

is the only university in Europe which operates a complete gravure line, from cylinder preparation through to a rotogravure printing press. Hence, the cylinder preparation and gravure printing department at HdM is unique in European further and higher education.

In the labs all aspects of gravure can be closely experienced and tried out, and the quality of all production steps can be tested with special measuring methods.

The introductory course offered here

covers gravure in theory and practice, from the galvanics for copper plating of a cylinder, through surface processing and finishing, preparation of a layout and the subsequent electromechanical engraving process, to printing on several papers with different ink viscosities.

Besides electromechanical engraving, all workflow processes for other modern gravure cylinder engraving procedures such as laser assisted etching and laser engraving are explained.



All process steps

are tried and tested on equipment in the cylinder preparation laboratory and in the gravure printing department. Participants will design a layout, help prepare and engrave a cylinder with it, and print it on different types of paper. These steps will be accompanied by quality control with the corresponding measuring equipment.

The course

is designed to provide a practical overview of the whole process chain for employees of gravure printers, cylinder engravers and reproduction studios, from paper, substrate and ink manufacturers, and also for newcomers to the industry coming from a different field.

This course does not include advanced operator training and so is not intended for the experienced technical staff from gravure printers.

The number of participants

has been limited to **10 participants per course**. This enables each participant to take an active "hands on" part in each production step, which will enable a better understanding of the complete process.



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General Information

Venue

Hochschule der Medien Stuttgart
Nobelstr. 10
70569 Stuttgart
Tel: +49-711-8923-2811
www.hdm-stuttgart.de

Target group

employees from gravure production and supply chains needing a general overview of the process

Duration: 2½ days

Language: English

Participation Fees

ERA Non-Members: € 2099,- (+19% VAT)
ERA Members: € 1599,- (+19% VAT)

The seminar participation fees are per person. Fees include seminar participation, seminar documentation, hotel accommodation, day catering, dinner and transfers from hotel and back.

Programme

Wednesday, 05 July 2017

13:00	Arrival of the participants at the hotel
14:00	Arrival at Stuttgart Media University
14:10	Welcome of the participants and tour through the technical departments of the Stuttgart Media University
14.45	Introduction to the course at the laboratory "gravure forme production" Introduction to gravure printing Introduction to gravure cylinder production Coffee break
15:30	Mechanical structure of a gravure cylinder Surface property of gravure cylinders Structure of a gravure unit Comparison of base copper and ballard skin process Influences of substrate parameters onto forme production Gravure specific measurement instrumentation
17:00	Galvanics Copper plating of a cylinder Chemical analysis of the bath Surface treatment
18:30	End of first day of the seminar

Thursday, 06 July 2017

8:30	Function of electromechanical gravure, cell shapes, screen angle, screen width, Xtreme/TransScribe, image signal processing, preparation of a sample for a print forme, colour management for gravure printing Coffee break
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10:00	Engraving of the prepared sample (2 cylinders) Quality control, metrological acquisition of a gravure gradation
11:30	Forme production with lasers Direct engraving with laser Etching with laser as mask generation tool
12:30	Lunch
13:30	Structure of gravure presses Corona treatment Drying Print control devices: web tension, register and viscosity control Coffee Break
15:30	Gravure inks – basics and composition, blending of inks for test print
17:30	Substrates and specific applications in packaging
18:00	End of second day of the seminar

Friday, 07 July 2017

8:30	Print with the two cylinders prepared on the previous day on the Rotomec MW 60 rotogravure packaging press with different ink recipes, substrates and doctor blade angles
12:30	Lunch
13:30	Metrological evaluation of the prints, generation and discussion of print gradations Questions and answers
ca. 15:30	End of seminar/departure

Organisation

Registration

Closing date for registrations is **07 June 2017**. The number of participants is limited to 10 only. Participation places will be allocated on a first come, first served basis.

Cancellations

Cancellations must be submitted in writing by **07 June 2017**. In case of absence or late cancellation, the complete participation fee is to be paid. After **07 June 2017**, the registration fee is transferable but not refundable. ERA reserves the right to cancel, defer or modify the event proceedings without prior notice.