

# Gravure at your fingertips

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

## 15 May – 17 May 2019

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.

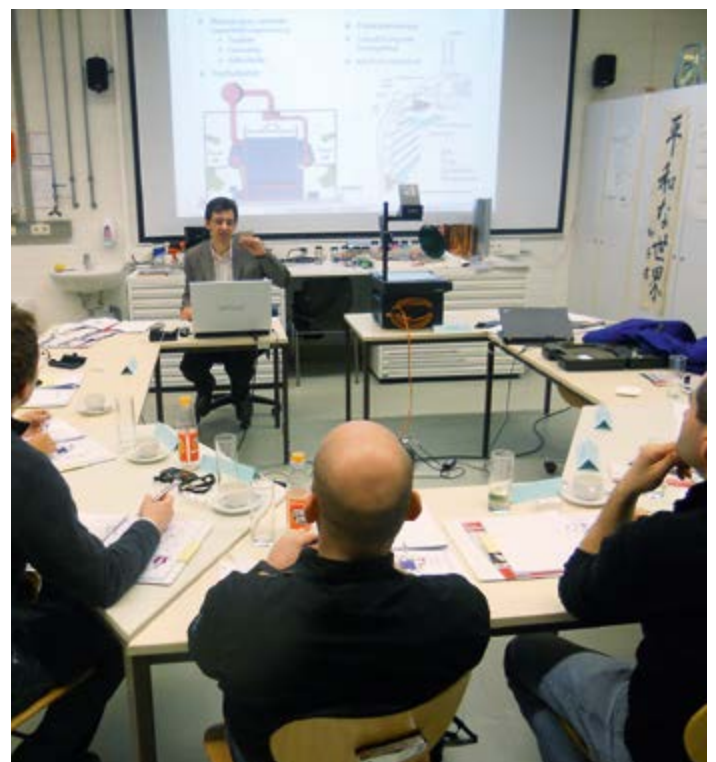
### The course

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.



# Gravure at your fingertips from 15 May – 17 May 2019

## 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 for 2 nights, day catering, dinner and transfers from hotel and back.

## Programme

### Wednesday, 15 May 2019

- 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, 16 May 2019

- 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**

- 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, 17 May 2019

- 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 **15 April 2019**. 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 **15 April 2019**. In case of absence or late cancellation, the complete participation fee is to be paid. After **15 April 2019**, the registration fee is transferable but not refundable. ERA reserves the right to cancel, defer or modify the event proceedings without prior notice.