



gt+w

INDUSTRIALISING FUNCTIONAL PRINTING

EASYPROOF

gt+w



## WE ARE GT+W

### INDUSTRIALISING FUNCTIONAL PRINTING

Located in the center of German printing expertise, GT+W develops and produces high quality equipment for printed electronics labs and production. Understanding the requirements of research and production we support our clients on their way from LAB to FAB. Following the approach of a full service provider, we offer systems and equipment for functional printing as well as engineering and consulting services. Our core competencies include developing and customising gravure and flexographic printing presses for printed electronics applications as well as characterising ultrathin transparent layers.

Our printing press SUPERPROOFER 220 is suitable for research and small production. Combining superior printing quality, high printing speed and economic operation the SUPERPROOFER 220 sets new benchmarks within the market. Our large area thickness measurement system SUPERSPECTRA 3 combines nanometer thickness resolution with high analysis speeds. Customers will benefit from GT+W's expertise in developing specialty printing equipment, processes and printing facilities.

In our team work thoroughbred mechanical and electrical engineers along with physicists, sales and marketing people.

Our portfolio:

- Printing presses for functional printing
- Large area thickness measurement systems
- Engineering and consulting services

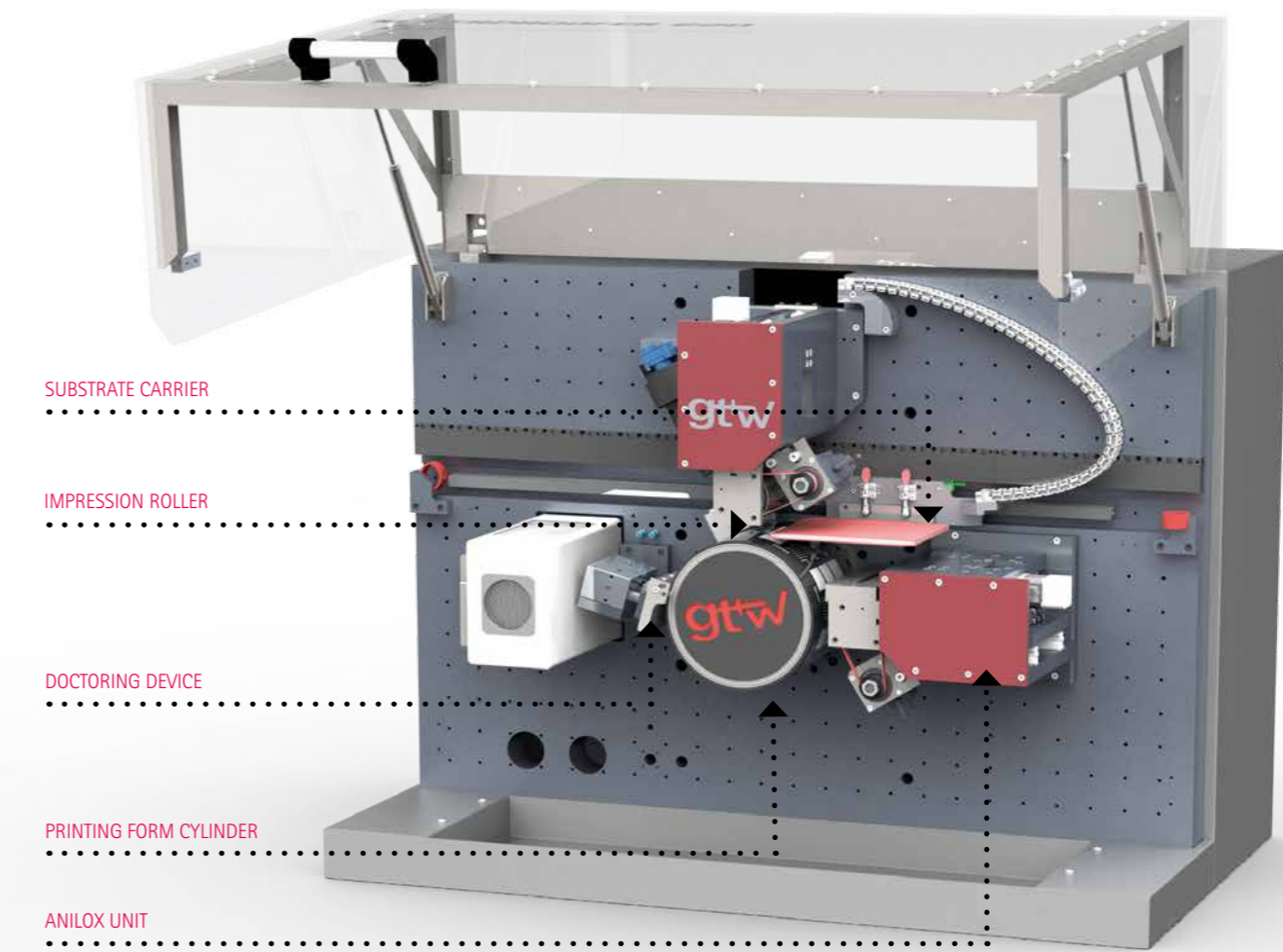
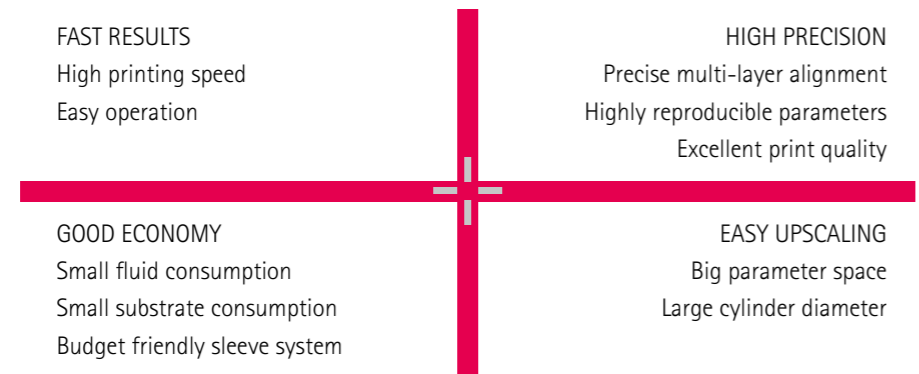
# SUPERPROOFER 220

## PRINTING PRESS FOR PILOT APPLICATIONS AND R&D

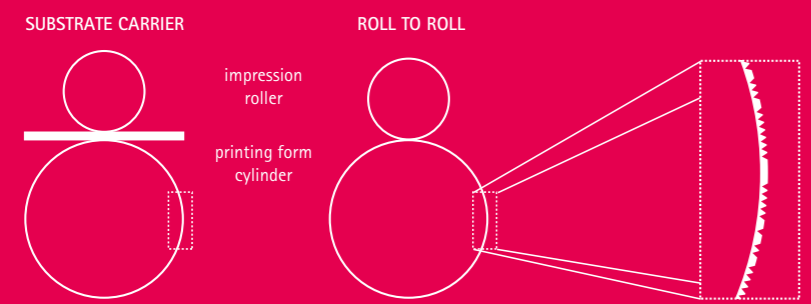
The Superproofer 220 is a printing system for precisely positioned multi-layer printing on sheet substrates, that can be flexible (foils) as well as brittle (glass and silicon).

Printing techniques are flexographic and rotogravure printing. It combines the highest printing speeds and highest printing quality with state of the art printing forms. Important features are the low fluid consumption and the excellent reproducibility. The Superproofer 220 is operated via a touch screen and a simple two step control system.

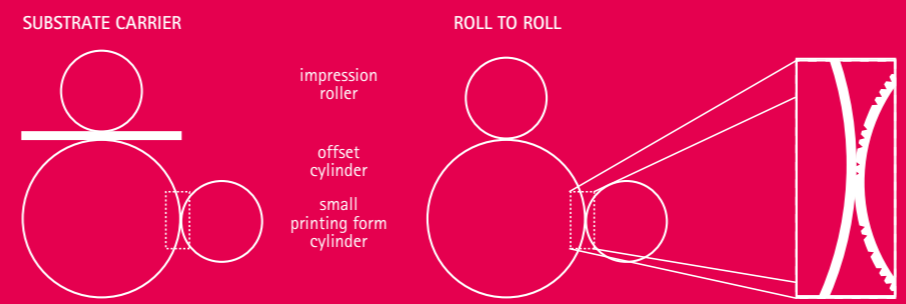
Due to the excellent reproducibility, the industry standard geometry and industry like printing parameters the Superproofer 220 is best suited at the transition from lab to fab



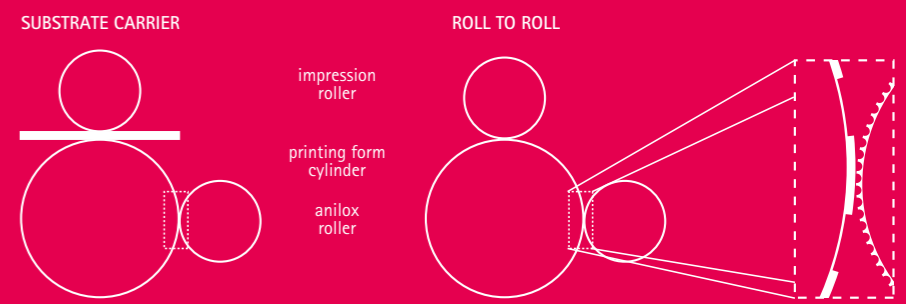
### GRAVURE PRINTING



### GRAVURE OFFSET PRINTING



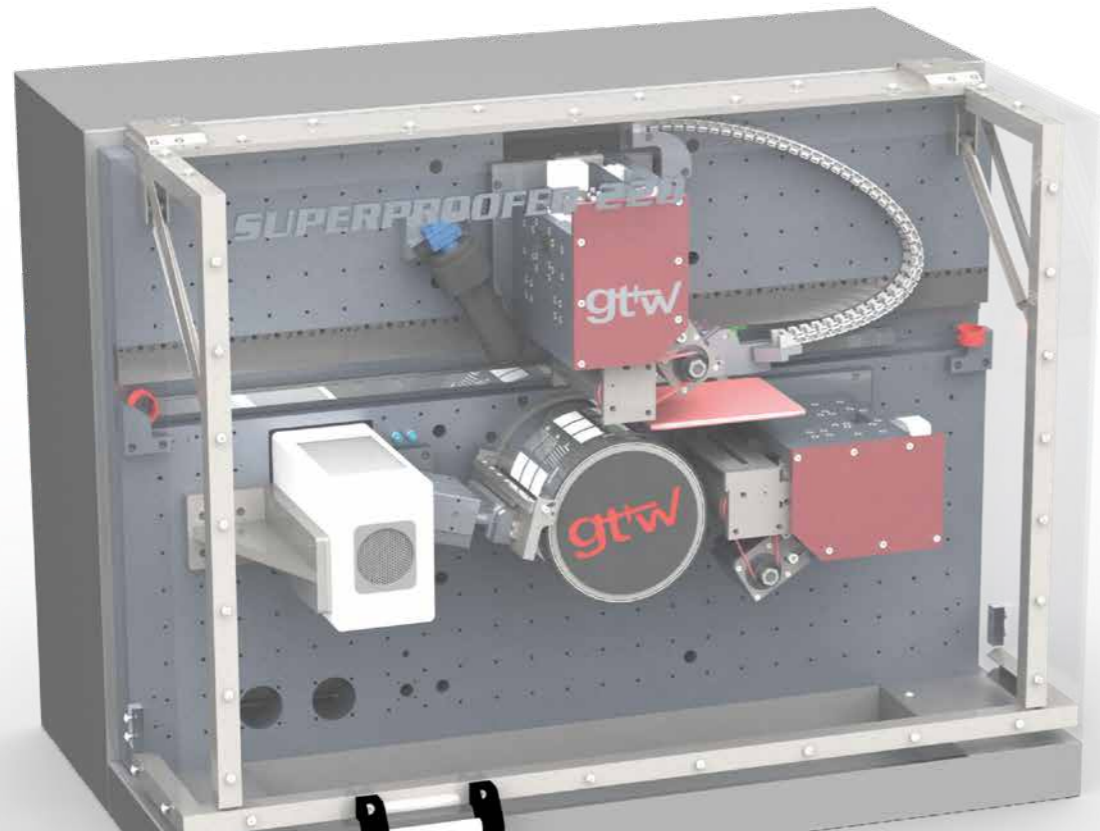
### FLEXOGRAPHIC PRINTING



The SUPERPROOFER 220 can be customised to your requirements. The following configurations and additions are available. Please contact us for additional details.

### CONFIGURATIONS & ADDITIONS

- Printing techniques: gravure, gravure offset, flexographic printing
- Substrate carriers: for flexible substrates, for brittle substrates, heatable, vacuum
- Device for substrate positioning
- Fluid dosing: manual, automatic system
- Substrate transport: substrate carrier, roll to roll
- Heatable printing form cylinder
- Moveable rack with workspace and compartment for the control cabinet
- Drying, curing, sintering units



### TECHNICAL DATA

Printing format / working area	150 mm x 150 mm
Printing speed	1 m/s to 5 m/s
Impression force	4 N/mm to 16 N/mm
Doctoring force	0.5 N/mm to 2.4 N/mm
Doctor blade angle	30° to 90°
Alignment	+/-10 µm
Fluid volume per print	1.5 ml

Printing form cylinder	Diameter 220 mm, width 200 mm
Dimensions	1150 mm x 1850 mm x 750 mm
Weight	700 kg
Power	7 kVA three phase
Air supply	8 bar dry clean air

## EASYPROOFER 220

### RESEARCH PRINTING PRESS

Extending our Proofer 220 series the Easyproofer 220 is our entrance printing system for high quality printings on sheet substrates, that can be flexible (foils) as well as brittle (glass and silicon).

Shared features of all Proofer 220 machines are state of the art printing forms on our sleeve system at lowest material consumption.

Uniquely Easyproofer 220 is the compact tabletop design that fits in easily.

Combining flexographic and rotogravure printing in such small press is economy of space at its best.

The Easyproofer 220 is designed for extensive though easy material testing without the need for micrometer multilayer alignment.



**FAST RESULTS**  
Easy setup  
Easy operation

**HIGH PRECISION**  
Highly reproducible parameters  
Excellent print quality

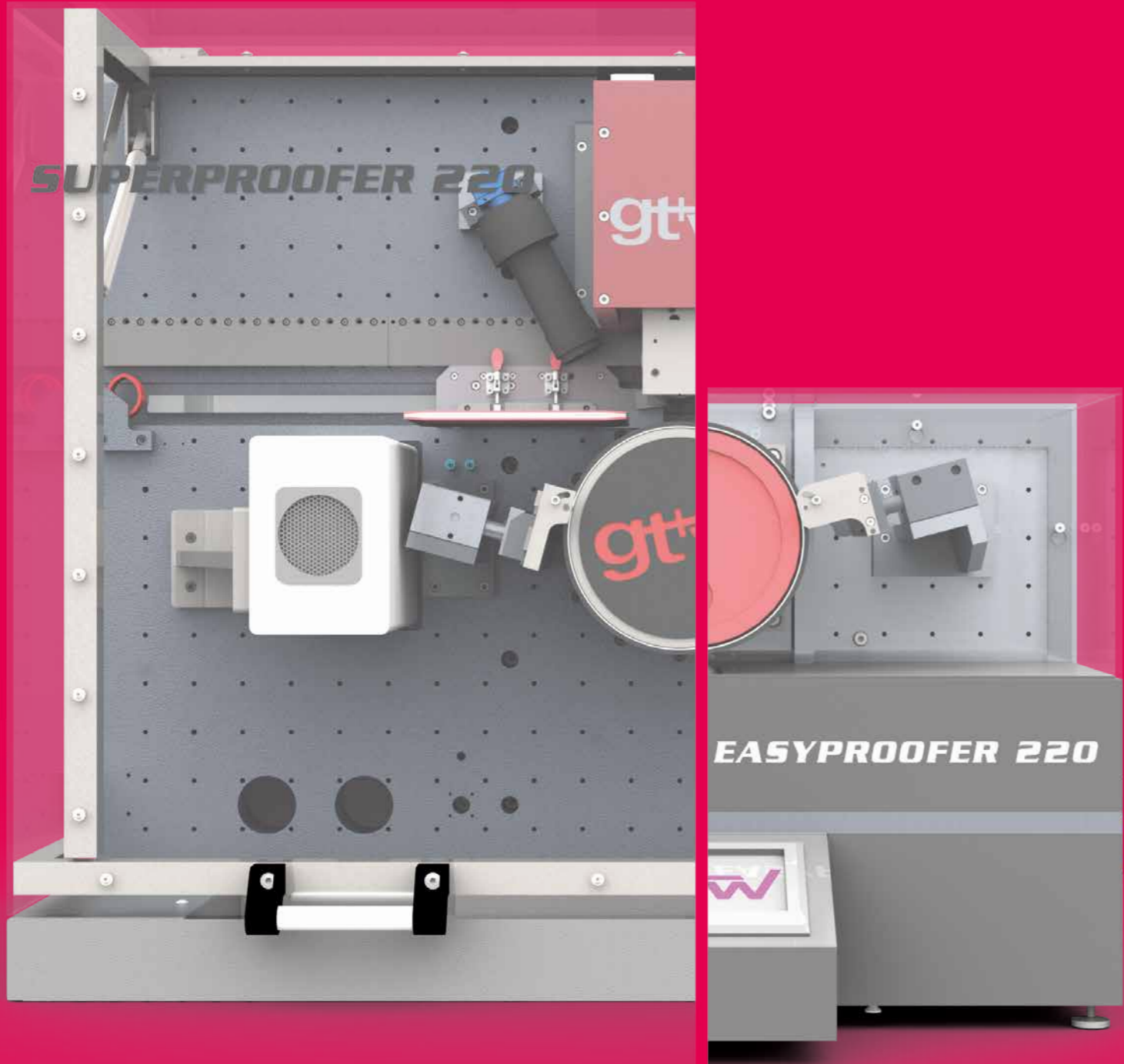
**GOOD ECONOMY**  
Small material consumption  
Budget friendly sleeve system

**EASY UPSCALING**  
State of the art printing forms  
Large cylinder diameter

## TECHNICAL DATA

Printing format / working area	150 mm x 150 mm
Printing speed	0.2 m/s to 1 m/s
Impression force	4 N/mm to 14.5 N/mm
Doctoring force	0.5 N/mm to 2.4 N/mm
Doctor blade angle	30° to 90°
Alignment	+/-15 mm
Fluid volume per print	1.5 ml

Printing form cylinder	Diameter 220 mm, width 200 mm
Dimensions	800 mm x 600 mm x 540 mm
Weight	180 kg
Power	230 V 50 / 60 Hz
Air supply	8 bar dry clean air



## PROOFER 220 SERIES

	SUPERPROOFER	EASYPROOFER
state of the art printing forms	X	X
gravure	X	X
gravure offset	X	
flexographic	X	X
flexible substrates	X	X
rigid substrates	X	X
device for substrate positioning	X	
optical alignment system	X	
integrated drying or curing units	X	
programmable drying processes	X	

# SUPERSPECTRA 3

## LARGE AREA THIN FILM MEASUREMENT SYSTEM



The SUPERSPECTRA 3 is a thickness measurement system for large area thin coatings and functional layers, based on the reflectometry measurement technique. This low energy optical principle is 100 percent non-destructive.

The SUPERSPECTRA 3 identifies the thickness of transparent materials on a wide range of substrates. Combining the nanometer thickness resolution with a topography analysis of large areas we made the SUPERSPECTRA 3 a versatile solution for many measuring applications.

**FAST RESULTS**  
Short measurement time  
Easy operation

**GOOD ECONOMY**  
Non-destructive  
Low operation cost

**HIGH PRECISION**  
Nanometer thickness resolution  
Small pixel size

**EASY UPSCALING**  
Inline option  
Large area

## TECHNICAL DATA

Measurement format	100 mm x 150 mm
Thickness resolution	1 nm
Lateral resolution	25 µm
Dimensions	715 mm x 360 mm x 350 mm
Weight	11 kg
Power supply	230 V – 50 / 60 Hz
Interface	USB

## PARAMETERS

Refractive index of the material
Absorption coefficient of the material

## DATA EXPORT

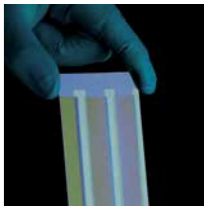
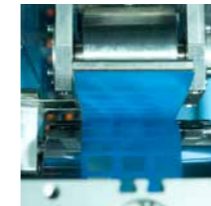
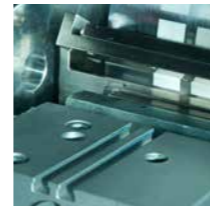
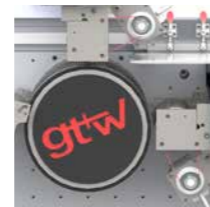
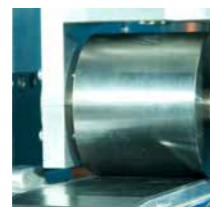
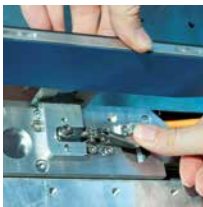
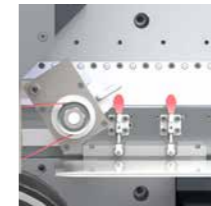
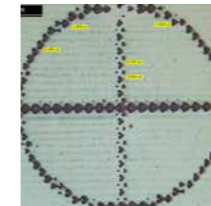
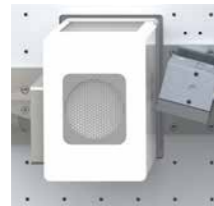
CSV • PNG • JPEG • Tiff • Mountain Maps
---

## SERVICES AND CONSULTING

GT+W offers engineering and consulting services in the field of functional printing. We start by customising our printing press SUPERPROOFER 220 and our thickness measuring system SUPERSPECRA 3 to client's requirements. Furthermore we modify existing printing equipment to meet new challenges or develop and implement new printing stations in already established workflows. Based on our knowledge of planning printing facilities and processes we help clients realising their printed electronics ideas.

## VISION

We strive to become the leading technology supplier with superior and innovative products for functional printing and printed electronics worldwide. Therefore, we combine our core competencies and the outstanding skills of our employees to support our clients with the most innovative printing presses and layer thickness measurement systems. As a result, our clients will reward us with confidence, profit and value creation. Combining these exceptional assets allows us to fulfill our vision of INDUSTRIALISING FUNCTIONAL PRINTING.





GT+W GmbH  
Paul-Ehrlich-Str. 17  
D-63322 Rödermark

fon +49 6074 8431-71  
fax +49 6074 8431-10

[www.gtandw.com](http://www.gtandw.com)  
[info@gtandw.com](mailto:info@gtandw.com)