

Flexo engraving  
Flat & rotary embossing

[www.a-k-k.de](http://www.a-k-k.de)



# Company network

Kesper Druckwalzen GmbH

Since 1875 experience in flexo, sleeve and embossing engraving

CST GmbH

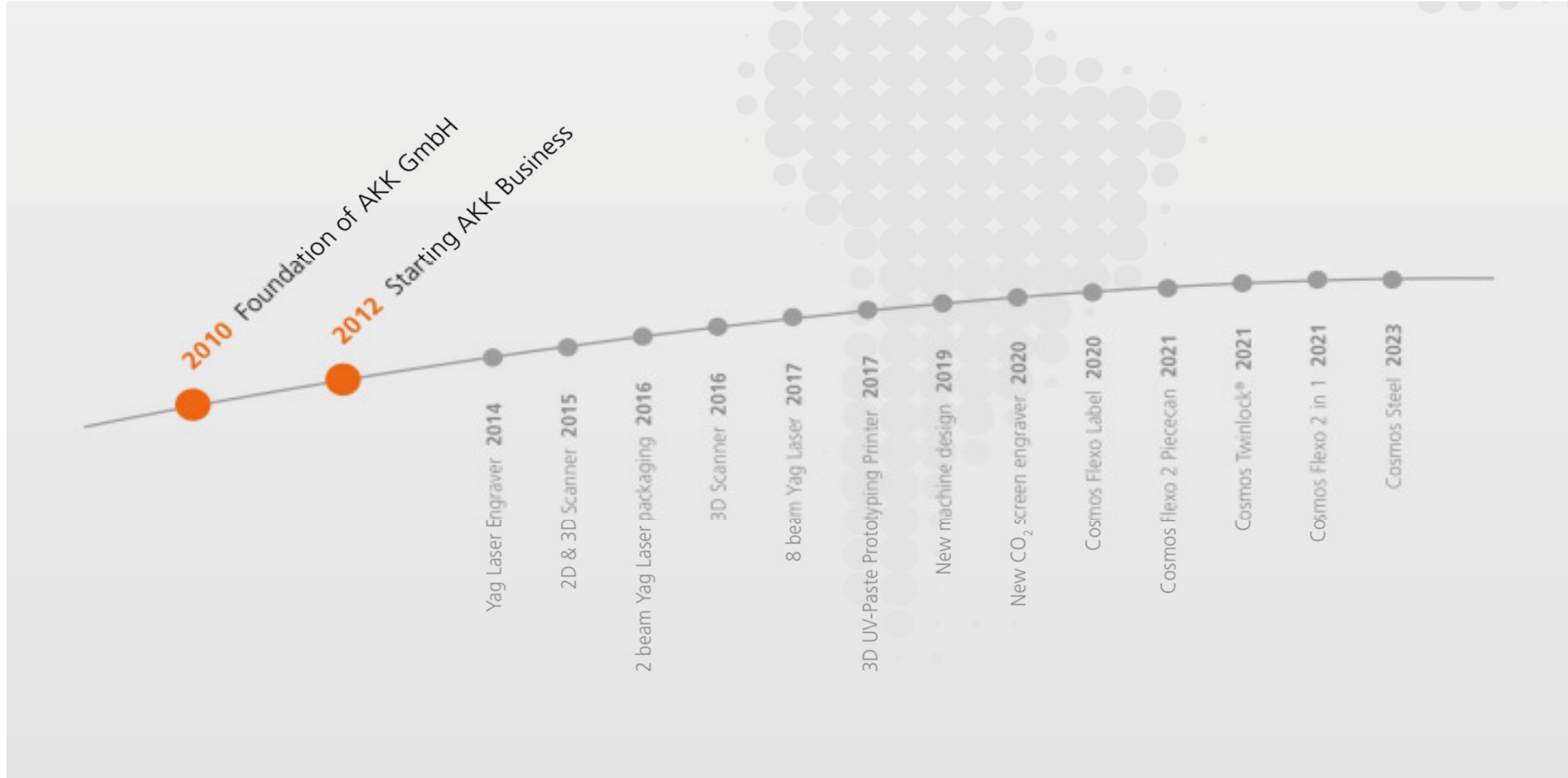
Since 1989 experience in machine manufacturing of flat and rotary engraving units

AKK GmbH

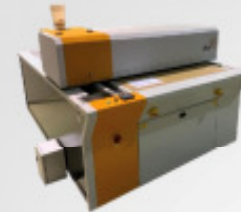
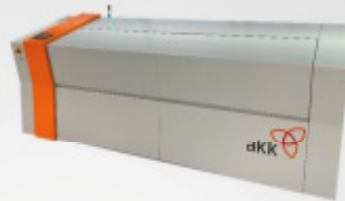
Since 2010 experience in machine manufacturing of laser engraving systems and embossing solution for the car and floor industry.



# History



# Product Line



	COSMOS FLEVO	COSMOS FLEVO +	COSMOS SCREEN +	GRAVITY F	GRAVITY M	GRAVITY R
<b>APPLICATION</b>	Label/2 piece can	Packaging	Textile, wallpaper	Press plate, architecture glass	Injection molds, car, furniture	Embossing cylinders
<b>MAX ENGRAVING LENGTH</b>	800 mm	3,500 mm	3,500 mm	8,000 mm	2,200 mm	3,500 mm
<b>MAX ENGRAVING WIDTH</b>	1,250 mm	1,250 mm	1,080 mm	3,000 mm	1,250 mm	1,250 mm
<b>AVAILABLE DPI RESOLUTION</b>	2,540 / 5,080	2,540 / 5,080	2,540	1,440	1,100–1,440	1,100–1,440
<b>PICOLITER</b>	-	-	-	10	10/30	10/30
<b>SURFACE SPEED</b>	6 m/sec	6 m/sec	10 m/sec	8 m <sup>2</sup> –10 m <sup>2</sup>	3 m <sup>2</sup> –5 m <sup>2</sup>	0.4 m/sec
<b>LASER POWER</b>	up to 2,000 Watt	up to 2,000 Watt	500 Watt	-	-	-
<b>HEAD SYSTEM</b>	Fiber Laser CO <sub>2</sub> Laser	Fiber Laser CO <sub>2</sub> Laser	CO <sub>2</sub> Laser	Konika Minolta	Konika Minolta/ Dimatix	Konika Minolta/ Dimatix
<b>BEAMS / NOZZELS</b>	1–2	1–2	1	1,024	1,024/256	1,024/256

# Information about Akk

Akk is a young and innovative company that specializes in the construction of special machines for the embossing and packaging industry. Both the mechanical engineering and the hardware and software are developed and manufactured at the Krefeld site.

## **Gravity Embossing Applications:**

Our engraving systems for the embossing industry are suitable for the production of embossing plates, embossing rollers and molds, primarily for the automotive industry. For the production of high-quality 3D prototyping printers we offer a 1.440dpi 3d printer for the texture and surface industry. A high resolution 3d scanner completes this range.

## **Cosmos Laser Applications:**

We offer various engraving systems for packaging printing. In addition to the classic Sealed Co2 lasers, we have concentrated on multi-beam technology using Fiber lasers and offer these with different sizes with 500 or up to 2,000 watts power. High-resolution engravings with up to 200l/inch on epdm plates, dry offset plates, sleeves with adapter systems or cylinders. Our engraving systems are "customized" to the needs of the respective application of the customer. This also applies to the software, which is intrigued into the customer's internal workflow.



# Gravity Rotary

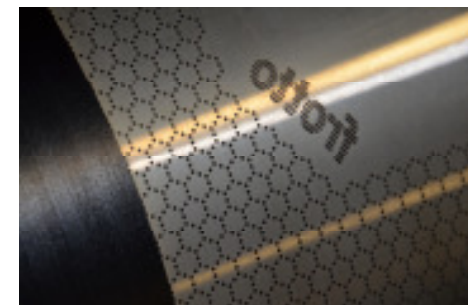
With the Gravity Rotary, rolls can be produced in several stages. With a high-resolution multi-jet spray head, a liquid, etch-resistant medium is heated to 85 -125 degrees and partially jetted onto the cylinder. The transfer of designs is possible up to a resolution of 1.440dpi.

As soon as the pressure drop hits the medium, it solidifies so that there are no noses, errors or gradients. A finely defined pressure point remains on the cylinder. After spraying, the cylinder can then be etched at 40-45 degrees Celsius.

The cylinder is then cleaned again and the next layer can be applied in the Gravity Mask Engraver. The cylinder can be clamped into the machine several times in the exact position by means of a camera system in order to carry out further engravings. Our customers also work with 10 etchings and more, depending on the relief or structure to be achieved.

The size of the machine depends on the individual wishes and requirements of the customer. This system enables fast and precise engraving. A roller of 200cm length x 64cm circumference is imaged in 25 minutes and can then be etched.

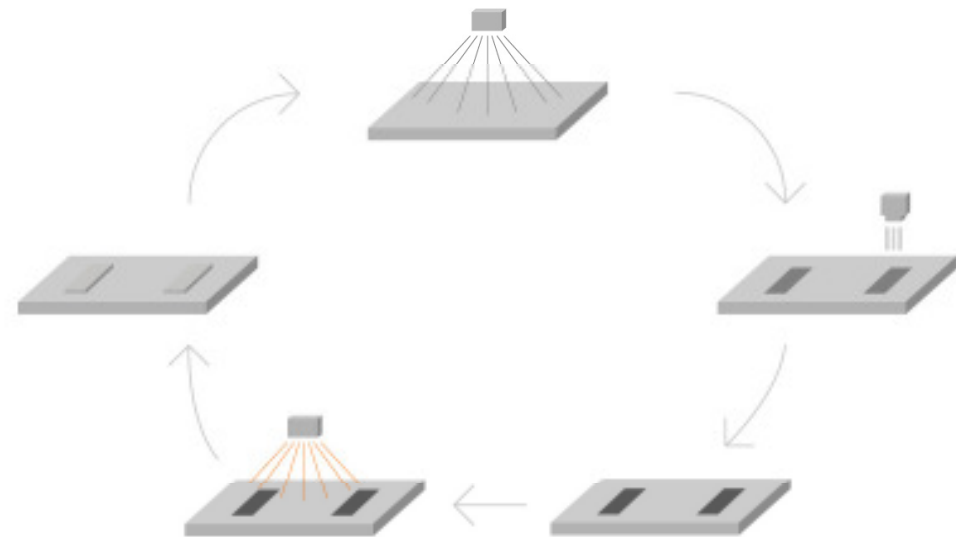
# Gravity Rotary



# Gravity Rotary

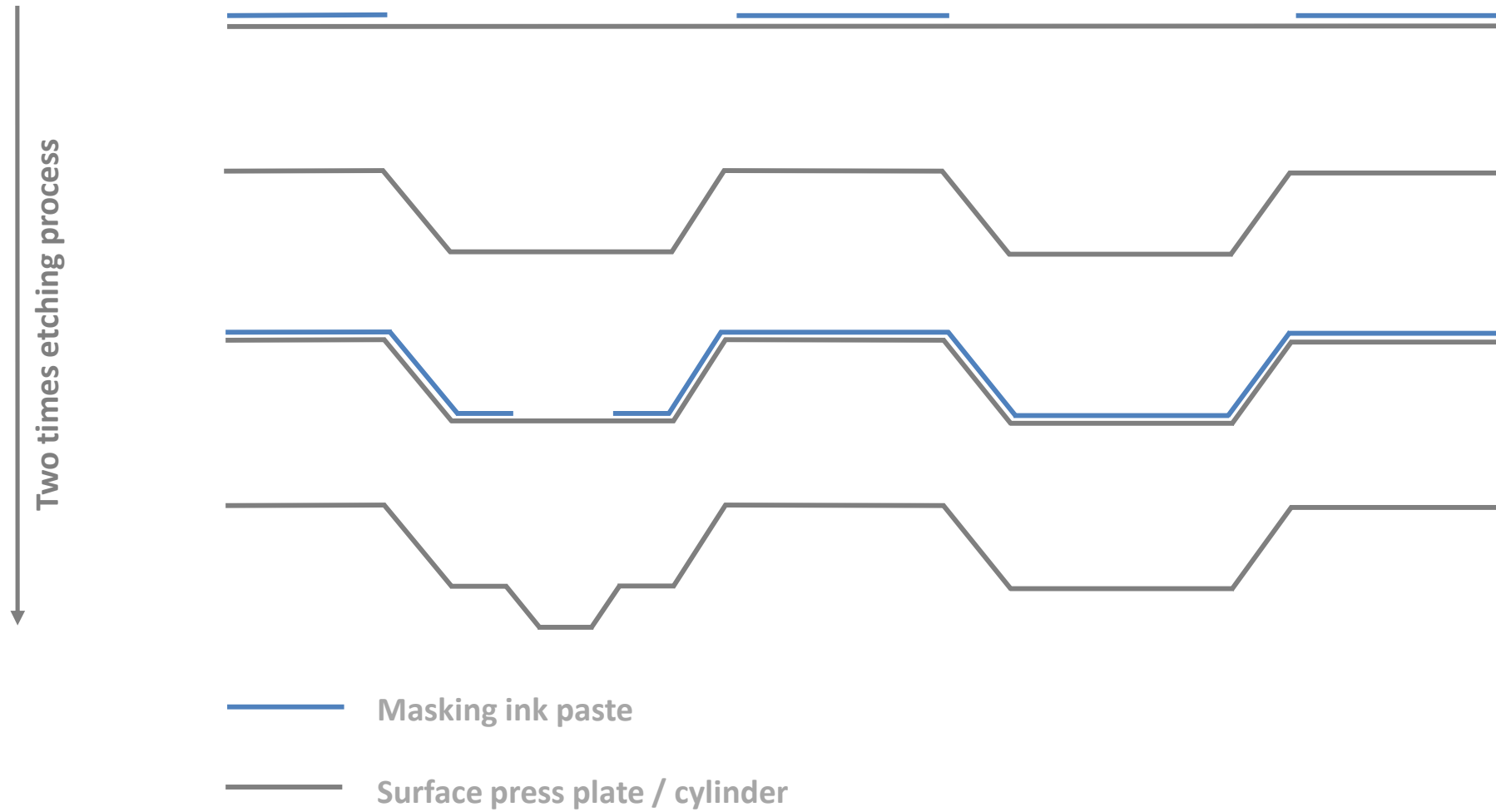
## Flat and Rotary

- Cleaning surface
- Jetting etchresist paste-Ink
- After printing prozess
- Etching Process  
(ferro chloride / sodium / Nitric acid)
- Result after etching
- Cleaning surface





# Gravity Flat





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