

KOENIG & BAUER

Laser



we're on it.

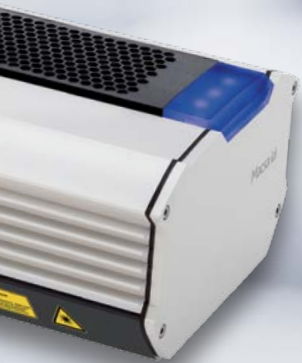
EN



We live „Made in Germany“

For over 45 years we have been developing and manufacturing high quality coding technology products at our site in Veitshöchheim, Germany. Our focus is on first-class quality, outstanding performance and all this in combination with unbeatable reliability. We're on it.

Uncompromisingly reliable.
Coding
with excellent uptime and durability.



Laser coding is ideal for permanent marking that is absolutely smudge-proof and abrasion resistant during the production process. Lasers are versatile, low-maintenance, and absolutely reliable.

Coding lasers offer not only precise markings for product identification and decoration, but also excellent reliability and cost savings in your everyday production. The Koenig & Bauer Coding portfolio offers models to meet your needs in every application to fulfil your individual printing requirements.

Versatile, irrespective of industry

Food, drinks, and tobacco goods

Print your plastic, tinplate, cardboard, or foil packaging with the current date, batch number, and code – customised to meet your needs. However, you can also add your custom special campaigns if necessary, for instance through a film packaging at the end of line.



Drinks and dairy products

No matter whether you use composite packaging, PET, cans, paper, foil, glass, or bags: Lasers ensure your coding is permanent, on none consumable materials and at extremely fast speeds.



Cosmetics, pharmaceuticals and consumer goods

A high-quality product design can help position your brand. Code paper, cardboard, plastic, anodised metals, leather, and much more to provide permanent decoration and traceability, with the exclusive look of discreet laser coding.

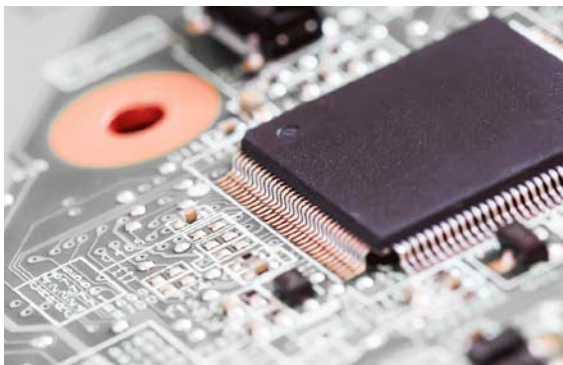


Lasers code perfectly in all industries and on a wide variety of materials and surfaces.



Automotive

Permanent, high-quality coding, even on multiple layers in one coding process, ensures you can exactly identify your products across their entire life cycle.



Electronics and components

Code your custom information, 1D and 2D codes, characters, or graphic symbols with excellent precision on large surfaces or small micro-components using camera-readable coding. This ensures products can be identified by internal logistics and provides traceability at all times.



Cables and pipes

Mark plastic and metal pipes at high speeds in your production process with alpha-numeric lettering, codes, symbols, and logos. Create an excellent typeface, even on rough or curved surfaces.

Laser

Code large-format products
or multiple applications in your
production line with up to

80 x 80 cm
printed images

Our coding systems must complete a modern, quality
assured testing process before delivery to ensure

uptime > 99 %

With the largest portfolio
of coding lasers on the
market, we offer

100 %
flexibility

In comparison to average market levels.

Are you taking advantage of possible savings?

Lasers are absolutely maintenance-free. In comparison to other technologies, they allow you to amortise your investment quickly. They are also a responsible choice for the environment.

Your marking shall fit into the conditions of your production line?

Lasers by Koenig & Bauer Coding can code even very large marking areas of up to 800 x 800 mm, including over multiple uses. Outstanding precision ink application on boxes and protective classes up to IP 65 speak for themselves.

In a nutshell.

Does your production demand a custom solution?

Koenig & Bauer Coding offers everything you need from a single source. Our competent engineers have comprehensive, long-term expertise – including in specialised designs. Your individual needs, from development to integration in your systems, are our focus.

Is easy connection / control important to you?

Use open interfaces to ensure customer-specific connection to your existing merchandise management systems, camera solutions, and use in track & trace applications. Smart integration offers you everything you need – even for the future.

Do you operate your production line at high speeds?

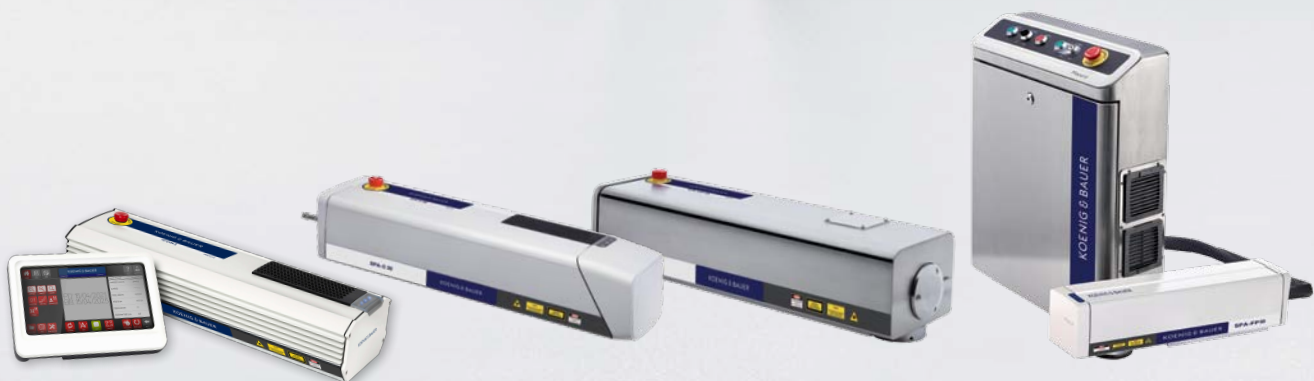
The Laser portfolio offers powerful coding lasers with ultra-high speed (UHS) write heads, for permanent product coding at extremely high speeds.

Do you have limited space in your production facility?

The Lasers offers a highly compact design, and you can choose from beam paths of 0° or 90°. This guarantees easy integration, even with limited space available.

Technical data

Laser models



	Packaging Laser					
	Entry	Advanced				
	iCON 3	SPA C	SPA-CIP	SPA-CL	SPA-FP	SPA-FF
Specifications						
Technology	CO ₂	CO ₂	CO ₂	CO ₂	Fibre	Fibre
Option	Standard	Standard	Standard	Standard	Standard, UHS	UHS
Performance	10 / 30 W	10 / 30 W	10 / 30 W	30 W	20 / 50 W	20 / 50 W
Wavelength	10.6 µm	10.6 µm	10.6 µm	10.6 µm	1062 nm	1062 nm
Beam path	90°	90°, 0°	90°, 0°	90°, 0°	90°	90°
Shutter	-	EMS ²	EMS ²	EMS ²	ES ¹ , EMS ²	ES ¹ , EMS ²
Protective class	IP20	IP54	IP65	IP22	IP54	IP54
Beam Expander	-	optional	optional	with BE	-	-
Pilot laser	-	optional	optional	optional	optional	optional
Lens						
	35 x 35 mm	40 x 40 mm	40 x 40 mm 60 x 60 mm 100 x 100 mm 150 x 150 mm 200 x 200 mm 250 x 250 mm 500 x 500 mm	60 x 60 mm 100 x 100 mm 160 x 160 mm 212 x 212 mm 242 x 242 mm 325 x 325 mm 560 x 560 mm	60 x 60 mm 100 x 100 mm 160 x 160 mm 212 x 212 mm 242 x 242 mm 325 x 325 mm 560 x 560 mm	60 x 60 mm 100 x 100 mm 160 x 160 mm 212 x 212 mm 242 x 242 mm 325 x 325 mm 560 x 560 mm
Operation / software						
Marca Full Graphic	optional	optional	optional	optional	optional	optional
Touch display	inclusive	optional	optional	optional	optional	optional
Speed³						
max. 1-line	75 m/min	250 m/min	250 m/min	230 m/min	250 m/min	850 m/min

With Laser, you receive a large number of powerful CO₂, YAG, and fibre lasers that ensure outstanding results and a high level of flexibility. Our portfolio offers powerful models for any application.



Industrial Laser					
Advanced				High-End	
K-1000	F-9000D	F-9000D-M	DN-5000D	D-5000D	
CO ₂	Fibre	Fibre	YAG	YAG	
SP, PLUS, UHS	Standard, UHS	Mopa	Standard	Green	
10 / 30 / 60 / 80 W	20 / 30 / 50 / 100 W	20 / 50 W	6 / 20 W	1.5 / 5 W	
10.6 µm	1062 nm	1062 nm	1064 nm	532 nm	
90°, 0°	90°	90°	90°, 0°	90°	
ES ¹ , EMS ²	EMS ²	EMS ²	EMS ²	EMS ²	¹ Electronic
IP22	IP22	IP22	IP22	IP22	² Electromechanical
optional	-	-	-	-	
optional	optional	optional	optional	optional	
60 x 60 mm	60 x 60 mm	60 x 60 mm	60 x 60 mm	40 x 40 mm	
100 x 100 mm	100 x 100 mm	75 x 75 mm	100 x 100 mm	60 x 60 mm	
160 x 160 mm	160 x 160 mm	100 x 100 mm	160 x 160 mm	75 x 75 mm	
212 x 212 mm	212 x 212 mm		212 x 212 mm	100 x 100 mm	
242 x 242 mm	242 x 242 mm		242 x 242 mm	160 x 160 mm	
			325 x 325 mm	212 x 212 mm	
			560 x 560 mm	242 x 242 mm	
				325 x 325 mm	
				560 x 560 mm	
				800 x 800 mm	
optional	optional	optional	optional	optional	³ Coding speed may vary depending on size, content, and materials
optional	optional	optional	optional	optional	
250 m/min	250 m/min	250 m/min	250 m/min	250 m/min	



Easy integration into your production line

Unique details and practical accessories
make your coding even better



Supplement your laser with practical accessories



Fume extraction



Touch screen

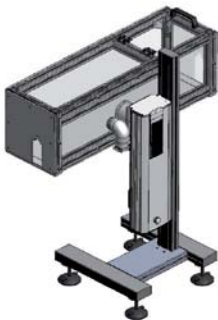


Sensor technology
and camera



Hand scanner

Both standardized and individually planned application solutions



Tripod with
protective housing



Marking station with
conveyor belt



Custom applications

Coding samples

Colour removal



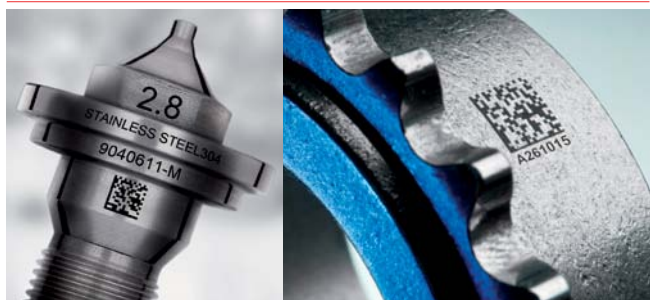
Colour change



Engraving



Annealing



Foaming



Cutting / scoring / perforating



The material and laser technology used determine the how laser coding functions.

When a targeted laser beam hits the material, it creates a reaction called laser coding. This reaction differs depending on the material used.

Technology	Material reaction
Colour removal	This reaction describes the targeted removal of colour, typically from a coated material. With laserSYSTEM F Film, you can achieve highly precise colour removal from printed or coated packaging materials. It is ideal for removing darker colours without damaging the coating or surface below.
Colour change	Coding plastics causes changes to the colour and structure of the surface. During laser coding, the material or added pigments react in a controlled manner to the beam with a colour change, for instance changing from dark to light or light to dark.
Engraving	During engraving, the laser removes material from the workpiece – such as metal, plastic, or organic materials like paper, cardboard, wood, etc. Engravings can be seen and felt.
Annealing	The laser beam heats a surface, typically a steel surface, in a localised area and creates an annealing colour after the material cools. The surface remains smooth and undisturbed despite the marking. YAG or fibre lasers are good technologies to choose for this process.
Foaming	During foaming, the laser beam melts plastic in a defined area. This creates gas bubbles in the material that become enclosed during cooling, and reflect light in a diffuse manner. This makes the marking appear brighter than the non-coded areas.
Cutting / scoring / perforating	laserSYSTEM K-1000 CUT cuts, scores, and perforates foil and paper with precision. This process is suitable, for instance, for vouchers and sachets that will later be torn by hand or for diffusion perforations on plastic foil. The large print area allows plenty of freedom in designing custom cutting patterns.
Custom	Informational brochures cannot provide any binding general information on laser coding. However, we will be happy to consider your project and your specific material and help you select the ideal technology from our laser portfolio. Sampling is free of charge and requires no commitment.



5 good reasons to choose Laser

01

Maintenance-free technology saves money and protects the environment.

02

Excellent uptime of over 99 % provides true production reliability.

03

Easy integration and high-speed coding increase your productivity.

04

Comprehensive portfolio and long-term expertise create flexibility.

05

A competent global sales and service team supports you at any time.

Laser

at a glance

General technical data

Interfaces

- Network (TCP/IP)
- RS 232
- Digital I/O port
- Photo cell
- Encoder
- Shutter control
- USB

Operation

- Touch screen (optional)
- PC software (optional)
- Network-compatible
- Scanner (optional)

Text composition

- Counter (with auto-stop function) and time functions
- Global Counter (for all print texts)
- DataMatrix, QR Code, Barcode, DotCode
- Characters and logos (in all current formats)
- True Type Fonts (international language and character diversity)
- Data fields (can be filled via interface)
- Laser Single Line Fonts
- Dot Matrix Fonts etc.
- Database printing

Product features

- Air cooling integrated

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06/2021-e 1039.2561
Printed in Germany