

KOENIG & BAUER

THE ENTIRE WORLD OF MARKING & CODING



we're on it.



We Live „Made in Germany“

For more than 50 years we have been developing and manufacturing high quality coding & marking products at our site in Veitshöchheim, Germany. Our focus is on first-class quality, outstanding performance in combination with unbeatable reliability. More than 15 OEM partners in the tire industry worldwide has trusted in the experience of Koenig & Bauer Coding over decades

We're on it.

One-Stop Shop for **Unique and Brilliant Coding** at Best Conditions.

In cooperation with numerous machine builders (OEMs – especially in the field of final finishing) we have developed a range of low-maintenance and reliable marking solutions. Tire manufacturers all over the world appreciate these innovative and highly reliable systems.

Our coding systems offer not only precise tire markings for high product safety but also excellent reliability and cost savings in your daily tire production. The Koenig & Bauer Coding portfolio offers models as well as suitable consumables to meet your needs in every application to fulfil your individual marking requirements.

Marking at Every Stage of the Tire Manufacturing Process with Koenig & Bauer Coding.



Mixing Area



Compound Marking

Semi Finishing



Tread Marking

Final Finishing



High Point
Conicity
Tread Lines

Warehousing



Laser Engraving
Labelling

Koenig & Bauer Coding offers a comprehensive product portfolio for marking all components in the tire manufacturing process. In particular, the alphaJET inkjet printers or the SPA lasers meet all the requirements of demanding tire marking. With these systems, any high or low visibility marking can be performed, at the lowest cost of ownership in the world. Markings with higher contrast can be achieved with both inkjet and laser. Tire compound marking ensures a high level of traceability at all times and can be easily integrated into production lines.



Mixing Area

Compound Marking

The different rubber components are mixed together in the so-called Banbury Mixer. Before the next working step, the various rubber compounds are stacked on pallets. In order to avoid any confusion between the individual components, high contrast inks or laser systems can be used for 100 % identification of your material.

Koenig & Bauer Coding assures the lowest running costs for inkjet systems thanks to the eco-solve solvent recovery system. Marking will be 100% contact free without causing any downtimes for changes on the marking systems (e.g. letters of printing wheels).



Semi Finishing

Tread Marking

Individual marking of the tread with the manufacturing date or with the type of composition: the reliable marking system leads into a 100% traceability of the identification of the compounds.

Koenig & Bauer Coding assures 100% of a high contrast marking and traceability of your materials. A contact free marking without any downtimes leads your production into higher efficiency.

Tread Marking with Inkjet

Thanks to the IP 65 protection class, the alphaJET matches the harsh environmental conditions perfectly. The inks from Koenig & Bauer Coding contain no kerosene components. With the use of networked software, the production process can be better monitored and the availability of the devices checked even faster.

Depending on customer requirements, the ink can disappear completely during vulcanization or withstand this process for a constant high contrast marking.

Tread Marking with Laser

Laser tread marking is a state-of-the-art marking process for the tire manufacturers.

Laser systems from Koenig & Bauer Coding achieve a highly visible contrast without the need for consumables. This laser marking disappears after the curing process and helps your operators to ensure correct article selection for each tire in the tire manufacturing process.

Koenig & Bauer Coding lasers mark without direct contact with the material and can be used in a very sustainable way.

Final Finishing

High Point Marking

The galley (type holder) for hpdSYSTEM moto with patented swivel type fits perfectly to the sidewall contour of a tire. In combination with LTA dots in different colours and adhesive characteristics you achieve brilliant printing results. You can use LTA or hot stamping/premium foil, with only slight adjustments in the hpdMOTO printer.

Take advantage of the outstanding print quality and precisely positioned, high contrast coding with hpdSYSTEM. The marking remains safe, even under heavy loads, far beyond the assembly process.



Conicity

Conicity marking with various symbols or symbol/colour combinations based on different customers specifications. Koenig & Bauer Coding solutions are integrated in cooperation with world-renowned manufacturers of tire measuring stations. If you use hpdSYSTEM, maintenance and consumption costs are considerably lower than using other technologies.

The choice of consumables is decisive for the quality levels of the marking on the tire. Koenig & Bauer Coding offers a comprehensive portfolio of inks and hot stamping foils in different qualities.



Tread Lines

The customers of the tire producers requires sometimes tread lines on each tire. These lines can be marked in the extrusion process and alternatively in the final finishing area - especially for tires who really requires these kind of markings.

Thanks to the alphaJET systems, Koenig & Bauer Coding is able to mark these tires individually with high-contrast inks in different colors with high level of cost saving due to the low consumable consumption.





Warehousing

Laser Engraving on Tires

The laser systems of Koenig & Bauer Coding are able to assure a high-quality laser marking on each tire which is nearly comparable with the quality of mould presses. Koenig & Bauer is able to use various laser systems to fulfill every customer requirement. By using a very specific laser system it can be assured that the marking process itself can be done in a very short time period by lowest amount of emission.

Tire manufactures are able to streamline their mould processes and mark every tire individual at the end of the process - e.g. dot/week code/logos.



Tire Labelling

Every markets requires an individual labelling of the tire. Koenig & Bauer Coding is able to provide a high-class labelling with the 4PL (Print & Apply solution). It doesn't matter if the marking is required in a continuous production or if the tires are stacked on pallets: Koenig & Bauer Coding provides in every case the right solution.

The tires can be labelled with the 4PL-rotary applicator in a continuous production flow or with the 4PL-cobot applicator in an intermediate production process at any position on the tire.

4PL Print & Apply from Koenig & Bauer Coding has been well approved worldwide since decades without having any typical spare items to assure the lowest running costs

Mark your tires after vulcanization and quality inspection (tire uniformity / tire balancing / tire geometry) and fulfill all of your customer requirements with different symbols and/or colour combinations.

> 15 OEM Partners

are in cooperation

with Koenig & Bauer Coding in the tire industry
with more than 40 years of experience

> 2,000 LTA Markers

are in operation

at the Top 10 tire manufacturers in the world.
Overall Koenig & Bauer Coding has more than
4,300 printers in the global tire industry

One-Stop-Supplier

for the tire manufacturers

Koenig & Bauer Coding provides the widest range of
marking & coding solutions in the tire industry
from mixing area to warehousing incl. its
highly requested consumables

Are you looking for more colour contrast in your tire & rubber coding?

Operate alphaJET printers with pigmented ink or hpdSYSTEM hot foil printer for LTA, dot marking and personalisation. Our broad portfolio of ink, hotfoil and LTA, ranging from high-contrast to high adhesion on challenging materials, offers the right answer for your needs.

Do you maintain production facilities domestically and abroad?

All devices convince with a robust construction and intuitive operation. The alphaJET and as well the laser for example, does not only print in different languages; the colour touch display can also easily and quickly be switched to a large number of language options (such as Arabian, Cyrillic, Chinese, etc.). Benefit from our competent sales and service team worldwide.

In a Nutshell.

How to install coding devices when production space is limited?

Compact printers allow you to easily integrate the equipment, even with limited space. OEMs of the tire industry worldwide are already prepared for implementing coding technology from Koenig&Bauer Coding.

How to make sure the quality of the marking is not damaged or removed during transport from production to the OE?

labelDOT and Premium hot foil provide best elasticity and cracking resistance, highest product and dimensional stability attributes on the market. Less required work for rejected tires with dot removal process and corrective actions saves you real time and money.

Are you taking advantage of our savings?

alphaJET offers RE-SOLVE Ultra. This is the most efficient solvent recovery available. The integrated automatic foil saving system of hpdSYSTEM increases productivity and cost-effectiveness. Laser marking does not require any consumable. This saves you money every day. Smart financing solutions (such as leasing or pay-per-code) and well-thought-out logistics and service concepts increase your potential savings.

Is it easy to integrate to production lines?

Coding solutions from Koenig&Bauer Coding have the right interfaces to connect to your machine fleet as easy as pie. Its smart integration offers you everything you need. Using alphaJET printers, individual coding for traceability is included.

Hot foil coding has been a trusted system for decades offering good economic efficiency and operating security – for first class printing results in product coding. hpdSYSTEM printers offer both brilliant print results and unbeatable robustness and service life.



hpdsystem moto

hpdsystem TR

hpdsystem magno

Print

Print surface max.	20 x 20 mm	15 x 15 mm	50 x 80 mm
Speed max.	60 prints / minute	5 prints / minute	60 prints / minute

Foil / ribbon

Hot foil length	305 m	183 m	305 m
Premium hot foil length	65 m	65 m	65 m
Foil diameter (max.)	100 mm	85 mm	110 mm
Hot foil	✓	✓	✓
Premium hot foil	✓	✓	✓
Transfer label (LTA)	✓	-	-

Available options

Protection class	IP 20	IP 20	IP 20
Exchange cassette	✓	✓	✓

Connection values

Mains voltage	24 V DC / 130 VA	24 V DC / 130 VA	24 V DC / 170 VA
Heating power	120 W	120 W	160 W
Compressed air supply	2 - 6 bar, Ø 6 mm	2 - 6 bar, Ø 6 mm	3 - 6 bar, Ø 6 mm
Compressed air consumption	0.16 l per print	0.16 l per print	0.23 l per print

Dimensions (H x W x L)

Print unit	146 x 293 x 176 mm, 8 kg	210 x 305 x 180 mm, 10.5 kg	201,5 x 291 x 169 mm, 8,6 kg
Device variation	right / left	right / left	right / left

Semi finishing

Mixing area	-	-	-
Tread marking	-	-	-

Final finishing

High point marking	✓	✓	-
Conicity	-	✓	✓

Laser coding is ideal for permanent marking that is absolutely smudge-proof and wear resistant. Production process doesn't matter if it is used in the mixing, semi finishing, tire building or warehousing process.



	Laser SPA-C	Laser SPA-F
Performance		
Specification	CO ₂ 10 W / 30 W	Fibre 50 W / 100 W
Wave length	10.6 μm	1062 nm
Beam path	0° / 90°	90°
Working field		
	40 x 40 mm	55 x 55 mm
	60 x 60 mm	100 x 100 mm
	75 x 75 mm	168 x 168 mm
	100 x 100 mm	212 x 212 mm
	150 x 150 mm	
	200 x 200 mm	
	250 x 250 mm	
Operation		
Touch display	optional	optional
Marca software	optional	optional
Safety		
Protection class	IP 54 / IP 65 optional	IP 54
Dimensions (H x W x L)		
	10W: 715 x 194 x 144 mm, 17 kg	print head: 6 kg, control unit : 22 kg
	30W: 724 x 216 x 176 mm, 25 kg	
Mixing area		
Compound marking	✓	✓
Semi finishing		
Tread marking	✓	✓
Final finishing		
High point marking	-	-
Conicity	-	-
Warehousing		
Tire engraving	✓	✓

Continuous Inkjet (CIJ) printing is ideal when speed and legibility of characters are important for applying variable data directly at the production line.



alphaJET5

Performance	
Line speed max.	800 m/min
Line speed at 2,5 mm character width	400 m/min
Max. lines	5
Ink	
Standard	✓
High-contrast	✓
Special	✓
Operation	
Touch display	10.4"
Software code-M	✓
Safety	
Protection class	IP 65
Connection values	
Mains voltage	(AC) 86 - 264 V, ± 10 %
Dimensions (H x W x L)	
Housing	620 x 321 x 321 mm, 23 kg
Print head	190 x 40 x 40 mm, 2 kg
Mixing area	
Compound marking	✓
Semi finishing	
Tread marking	✓
Final finishing	
High point marking	✓
Conicity	✓
Special applications	✓

Print & Apply is ideal for printing variable data and information directly and accurately applying it with respect to shape and material onto a variety of products.



4PL Print & Apply

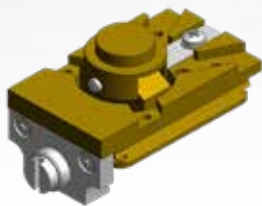
Performance	
Applicators	swipe / tamp / rotary cobot / pallet
Labelling system	
	Label roll Ø 300 mm or Ø 400 mm Controller Siemens Logo! 8 Zebra ZE500 4"/6"
Operation	
NiceLabel PC software	✓
Touch display	optional
Barcode scanner	optional
Stand	optional
TTO-Printer	
Zebra ZE500, 4"	16 - 114 mm wide
Zebra ZE500, 6"	76 - 180 mm wide
	300 dpi
Dimensions (H x W x L)	
	890 x 480 x 440 mm, 25 kg
Mixing area	
Compound marking	-
Semi finishing	
Tread marking	-
Warehousing	
Energy labels	✓

Mixing Area	Compound Marking		
	alphaJET SPA laser		
Semi Finishing	Tread Marking		
	alphaJET SPA laser		
Final Finishing	High Point	Conicity	Tread Lines
	alphaJET hpdSYSTEM moto hpdSYSTEM TR	alphaJET hpdSYSTEM magno	alphaJET
Warehousing	Laser Engraving	Labelling	
	SPA laser	4PL Print & Apply	

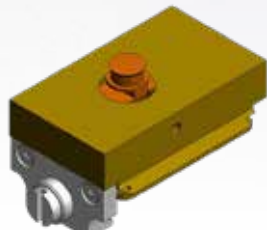
One-Stop-Supplier

Koenig & Bauer Coding assures a high reliable marking solution and is able to provide the best consumables and accessories in the tire industry. Even more Koenig & Bauer Coding is well experienced in the tire manufacturing process and knows exactly the demand of the market.

Flexibility with different shape / galley:



Patented swivel type for hpdSYSTEM moto



Custom galley according to individual coding requirements for hpdSYSTEM moto



Patented technology of 8 rotating shapes for hpdSYSTEM TR

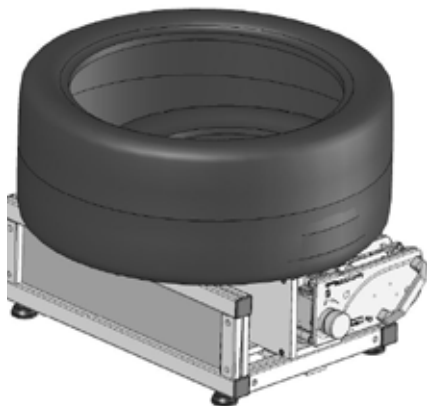


Table station for tire marking

In some cases tires must be marked manually by hand. Koenig & Bauer Coding offers a portable hand marking station that can be operated at any time at any place in your production. The table station consists of a solid frame and the hpdSYSTEM moto including control unit. The hand operated counterpressure achieves very good results even on challenging sidewalls.

Operate the hpdSYSTEM moto either with LTA, hot foil or premium hot foil.



Easy Integration with Less Maintenance

Advanced technology and equipment make your tire and rubber marking even easier.



hpdSYSTEM moto

The hpdSYSTEM moto is mainly used for applications of the LTA dots (labels) for original equipment (OE).

With its galley (type holder) with patented swivel type, the hpdSYSTEM moto adapts perfectly to any sidewall contour and in combination with the LTA dots from Koenig&Bauer Coding GmbH, the best achievable print results can be obtained in worldwide high-point marking.

Thanks to the latest technologies, it is possible to utilize up to 4,300 dots per roll to keep changeover times as short as possible.

Due to its great flexibility, the hpdSYSTEM moto can also be operated with hot stamping foil or premium hot stamping foil. Only the galley and the cassette have to be exchanged.

Continuous Inkjet

Continuous Inkjet (CIJ) printing is the right choice when speed and legibility of characters are important for applying variable dates directly at the production line.

alphaJET printers can be operated with pigmented ink. Our large ink portfolio from high-contrast to well adherent ink for challenging materials has the suitable answer for many requirements.

alphaJET CIJ ensure accurate results and excellent reliability. Prepare for increased production and cost savings.

hpdSYSTEM TR

Various markets and customers require even higher flexibility in terms of coding and marking.

The hpdSYSTEM TR impresses in this area with its rotating printing wheel that can print up to 8 symbols per printing unit. This increases your flexibility and reduces the need for larger numbers of marking devices.

In combination with the recently developed premium foil, excellent print quality can be achieved on the tire sidewalls, which adheres very consistently to the tire. In addition to the familiar marking symbols, logos and letters (e.g. P, PP, N, NN) can also be applied perfectly to the tires.

Laser Engraving

Laser permanent marking is absolutely smudge-proof and abrasion resistant during the entire production process.

Lasers are versatile, low-maintenance, and absolutely reliable. Lasers are absolutely maintenance-free. In comparison to other technologies, they allow you to amortise your investment quickly.

Print & Apply

It is ideal for printing variable data and information directly and accurately applying it individually with respect to shape, colour and material onto a variety of products and packaging with pinpoint precision.

4PL labelling solutions rely on the tried-and-test Zebra technology and can be individually configured with different applicators. This solution with thermal transfer printing and modular applicators is designed for modern production and high quality standards.

Get More Flexibility

with the appropriate hot-foil / transfer label:

	Hot foil	Premium hot foil	Transfer label (LTA)
Characteristics			
	Coloured powder	Special varnished layers	Pre-printed labels
Product specification			
Length	61 / 122 / 305 m	65 m	-
Width	18 / 20 / 25 / 50 / 80 mm	18 / 20 / 80 mm	-
Diameters	-	-	6 - 20 mm
Colours	● ○ ● ● ● ● ●	● ○ ● ● ● ● ●	● ○ ● ● ● ● ●
Other sizes	on request	on request	on request
Shapes	ff. to RAL/pantone specifications	acc. to RAL/pantone specifications	acc. to RAL/pantone specifications
Special shapes	according to galley of the printer	according to galley of the printer	dots, donuts, triangles on request (e.g. „Z“, „X“, „N“, „PP“)
Toxic substances	no	no	no
Storage time	12 months	24 months	24 months
Performance*			
Edge sharpness	● ● ○ ○ ○ ○	● ● ● ○ ○ ○	● ● ● ● ● ●
Bright colours	● ● ○ ○ ○ ○	● ● ● ● ○ ○	● ● ● ● ● ●
Rubbing resistance	● ○ ○ ○ ○ ○	● ● ● ● ● ○	● ● ● ● ● ●
Object size/form	● ● ○ ○ ○ ○	● ● ○ ○ ○ ○	● ● ● ● ● ●
Devices			
hpdSYSTEM moto (LTA)	-	-	✓
hpdSYSTEM moto (foil)	✓	✓	-
hpdSYSTEM TR	-	✓	-
hpdSYSTEM magno	✓	✓	-
Other machine supplier	on request	on request	on request
Print samples			
	Hot foil	Premium hot foil	Transfer label (LTA)



Optimise your production and logistics of tires or rubber material with direct marking. Coding technology from Koenig & Bauer Coding is usable in every area of your production process.

Hot foil coding / LTA

- LTA
- Dot marking
- Personalisation
- Shapes: dot, donut, triangle, others



Inkjet coding

- Dot marking
- Track & Trace
- 2D-code
- Personalisation
- For cured tires
- Tread marking
- Individual tread marking on green rubber



Laser marking

- Permanent
- Individual
- QR-coding
- Alphanumeric



Print & Apply

- Labelling
- Personalisation



By using original parts and consumables for your final finishing process, you benefit with high process reliability and less downtimes which lead to a significant reduction of production cost.



5 Good Reasons for Koenig & Bauer Coding

01

Low consumption combined with low prices means you save money.

02

Excellent availability of over 99 % provides true production reliability.

03

Easy integration and less maintenance increase your productivity.

04

A comprehensive portfolio of shapes, colours, qualities lets you react flexibly to customer requests and increases customer loyalty.

05

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

Tire & Rubber Marking at a Glance

General Data

Mixing area	Compound marking
	<ul style="list-style-type: none"> • alphaJET continuous ink jet • SPA laser
Semi finishing	Tread marking
	<ul style="list-style-type: none"> • alphaJET continuous ink jet • SPA laser
Final finishing	Hot point marking / Conicity / Tread lines
	<ul style="list-style-type: none"> • alphaJET continuous ink jet • hpdSYSTEM hotfoil printer
Warehousing	Personalisation
	<ul style="list-style-type: none"> • SPA laser • 4PL Print & Apply
Consumables	
labelDOT	<ul style="list-style-type: none"> • LTA solution with patented technology • Different colours and shapes • Product stability • Reliable marking on raised structures • Elasticity and cracking resistance • Dimensionally stability
Premium hot foil	<ul style="list-style-type: none"> • Strong adhesion on rubber material • Outstanding opacity compared to standard foil • Improved performance on uneven structures • Usable with existing hpdSYSTEM devices
Ink portfolio	<ul style="list-style-type: none"> • Special ink formulation for the tire & rubber industry • Different colours for contactless coding/numbering • Marking on green rubber • No kerosene based inks

Get more information on our website coding.koenig-bauer.com

