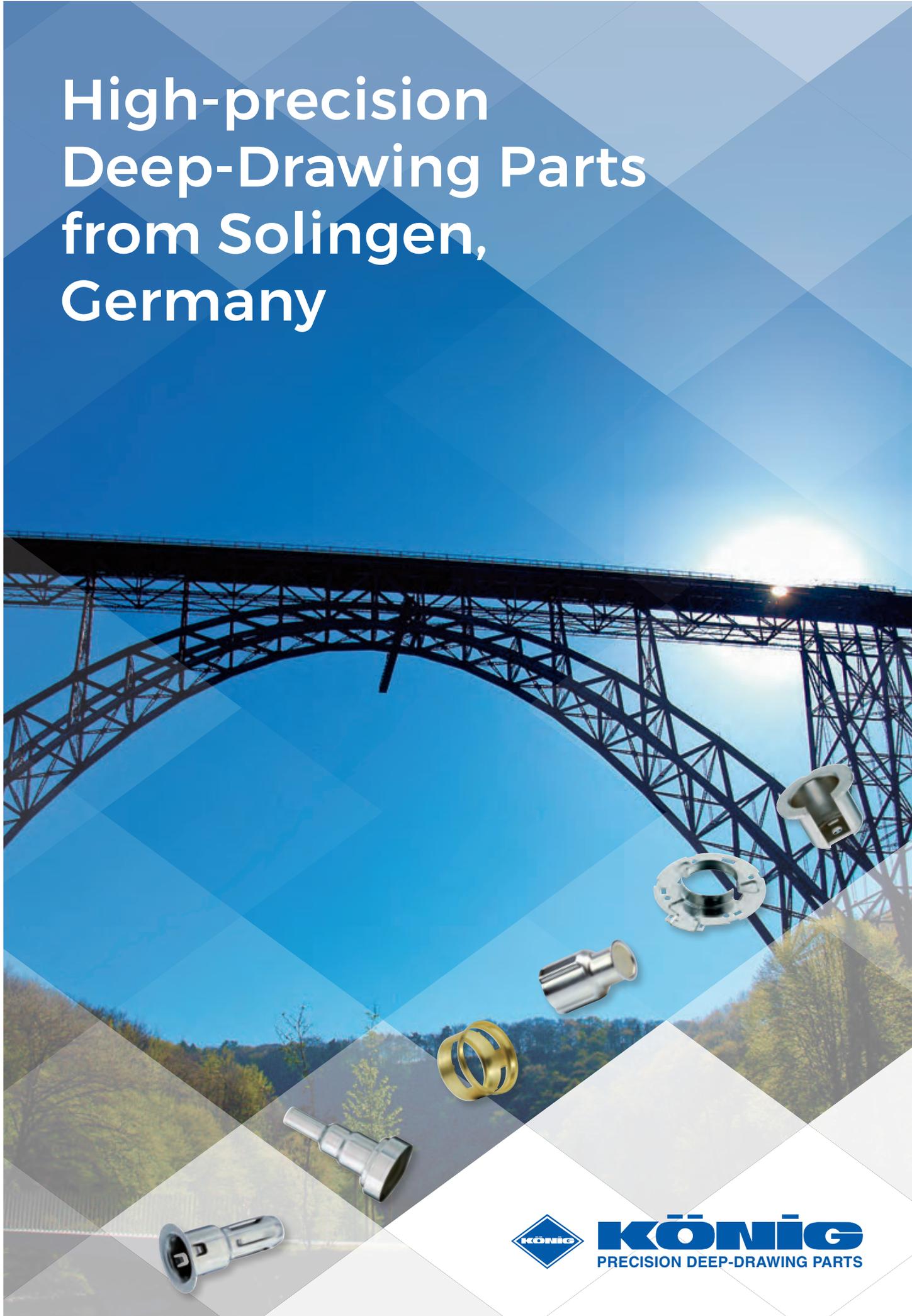


High-precision Deep-Drawing Parts from Solingen, Germany



KÖNIG
PRECISION DEEP-DRAWING PARTS

We generate trust.



Guide sleeve



Airbag sleeve



Sliding sleeve



Particulate trap



A PARTNER OF INDUSTRY FOR MORE THAN 135 YEARS

Customer satisfaction

Our company now looks back on over 135 years of history.

The products and production possibilities have been adapted to the course of time. However, the faithfulness to the location of Solingen, Germany with a commitment that is otherwise global, together with the partnership-based relationship to customers, suppliers and employees have remained. Our top-priority commitment has remained as well: Complete Customer Satisfaction.

Quality management

Our corporate policy has adopted the zero defect strategy as its basis. Each of our employees acts according to the motto "fault avoidance before fault detection".

Our Quality Management is certified according to ISO/TS 16949:2009. All of the measures are clearly defined, are monitored and developed further in an ongoing manner. This includes the regular conducting of internal audits. The certification in accordance with IATF 16949:2016 is currently being prepared.

Environment

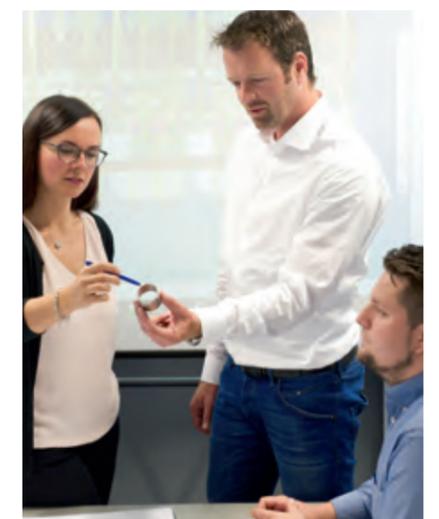
Even though our products are made of metals they are very easy to recycle. It is our mission to reduce emissions wherever possible both in all of our processes and products.

This is why here at König we have implemented an environmental management system and have had it certified in accordance with ISO 14001:2004 + Cor 1:2006

Employees

In the same way that we present ourselves as being a partner of industry, we also maintain the interaction as partners. We can only succeed with a mutual know-how and and the making of joint efforts.

As our employees are our greatest asset, we have also implemented a Health and Safety Management System in addition to having it certified in accordance with BS OHSAS 18001:2007.



HIGH-PRECISION DEEP-DRAWING PARTS

Products

Today, more than 180 employees work for the fourth generation of our family-owned company. We produce high-precision deep-drawn parts made of stainless steel, steel and non-ferrous metals in modern state-of-the-art production sites. The focus of our production is on thin-walled and mainly rotationally symmetric hollow bodies with wall thicknesses of between 0.15 and 2.3 mm. The narrowest tolerances are hereby to be taken into account with regard to dimensions, forms and positions.

Customer required Critical surfaces and cleanliness of the components are complied too and well protected throughout the entire manufacturing process and all the way to the customer. Often the surfaces of the stamping are subjected to subsequent mechanical or electroplating treatment if required.

Our company processes around 1,200 t of stainless steel, 1,800 t of steel and 80 t of non-ferrous metals every year.

The know-how of our employees, in conjunction with ultramodern production plants, makes it possible for Koenig lead the industry with the highest precision, complex geometries which often require more than 20 forming steps in extreme cases.

We supply our high quality products to all global destinations, well protected and ready to use. These precision stampings are turned into assembled products in almost all segments in the automotive industry in addition to numerous other different industries.



We love quality.



Lambda sensor



Magnetic controller for power steering



Magnetic housing for suspension optimization



Motor housing



Braking system for commercial vehicles

ENGINEERING AND TOOLMAKING



Engineering

The innovative spirit of our designers paired with the corresponding hardware and software, forms the basis for the implementation of new ideas to create practical and economical solutions.

What can be imagined can be achieved. What is today a turned part can for example be an inexpensive lighter deep-drawing part tomorrow. The basis for such creative solutions is accomplished through collaborative and intensive discussions with the customer as our partner.

Research and development

We develop our existing processes further in our firmly established Research & Development department, in addition to us already giving consideration to the processes and technologies of tomorrow, today.

It is our ultimate goal to continually move the boundaries regarding the possible, we thereby being able to offer our customers an added value in the future.

Design

The path that leads from an idea to a series production is a long and exciting one. Which processing steps are possible with the material and which sequence results in the optimal product?

Toolmaking

Our toolmaking is the direct continuation of the engineering process. The finest mechanical precision work with CNC technology support, creates the basis for a trouble-free series production. Our toolmaking department has its own Quality Assurance and thereby secures the high quality workmanship not only of the tool components that are to



We think ahead.

Sensor sleeve

White metal goods

Gas meter

be produced, but also of the spare parts. In the trial phase, the tools are continually optimized until the result is fully conform with the demands. Quality and economic efficiency benefit from this and secure customer satisfaction.

Prototypes

In many instances our customers require prototypes. König is delighted to meet this requirement with short notice, inexpensively and in a quality that is often exact or close to that of the series production process.

Fast access

Both our raw materials warehouse and the tools warehouse are organized so that a production switch only causes minimum downtimes. This also includes the care and maintenance of the tools.

PRODUCTION POSSIBILITIES



Spherical cap



Floodlight holding clip



Sensor



Xenon headlight

Transfer presses and automatic punching machines

Our production plants are something to be proud of. Koenig operates 17 differently design transfer presses and 10 automatic punching machines, many of which have been equipped with a servo drive, provide us with the flexibility we need for an optimal machine utilization. On the one hand, this secures our quality claim and on the other, it also enables us to produce in an economically viable manner.

Regular care and maintenance that is consistently carried out on the basis of the Total Productive Maintenance (TMP) principle and the making of investments in new plants, enables us to avail ourselves of modern machinery. This allows us to keep to the tight tolerances that we have assured our customers. We have ensured that we have adequate room for future extensions.

Transfer presses

- Pressing force: 600 – 1500 kN (68 – 180 tons)
- Max. number of stages: 21
- Max. drawn part height: 90 mm

Automatic punching machines (servo)

- Pressing force: 630 – 2500 kN (71 – 280 tons)
- Max. drawn part length: 45 mm
- Max. table length: 2000 mm

Pre-treatment and after-treatment

The handling of the materials in the deep-drawing process is a science in itself. On the one hand, the material that is to be formed and the tool itself need to be supported by suitable lubricants during the process and on the other hand, the corresponding adhesion has to be completely removed from the finished part.

The environmental aspect also has to be taken into account. By using modern deep-drawing oils and emulsions, our know-how and corresponding technologies, we are able to provide the assurance that the parts are processed in a manner that cares for the material, that they are subsequently free from residues and that, last but not least, that the environmental aspect is taken into account.

Materials

The deep-drawing parts that we produce are made of steel, stainless steel and the most diverse non-ferrous alloys. Each material has specific properties that are to be taken into account during the forming process.

The non-binding consultation in advance already creates drawing technical approaches that the customer can benefit from during the development of its products.

We ensure satisfaction.



We are environmentally aware.



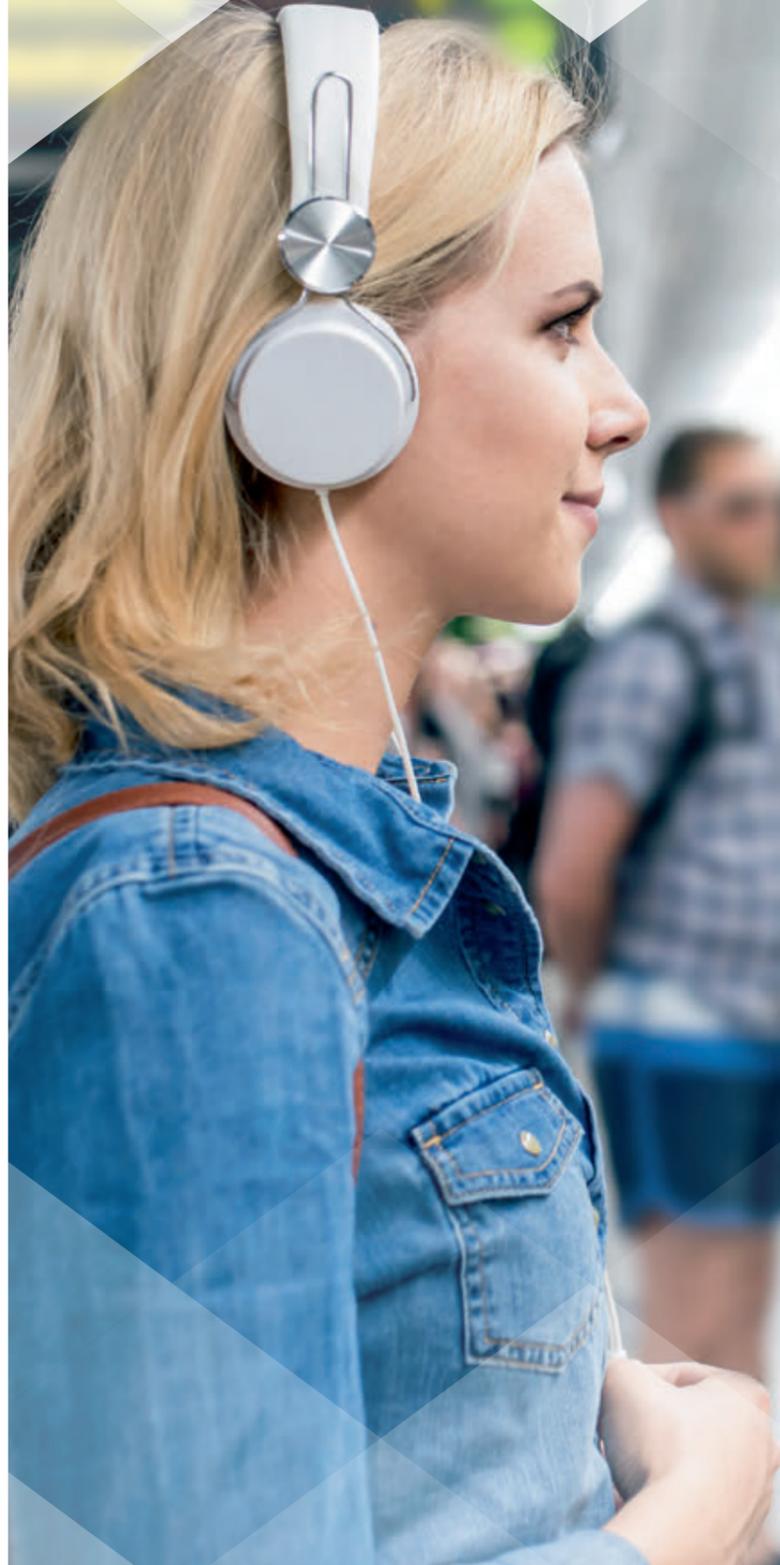
Car Spring support



Water pump control



Solenoid switch fuel metering



SURFACES AND QUALITY

Mechanical surfaces

A large selection of abrasives and polishing agents that are utilised on differently designed installations, enables us to design a surface that is exactly what the customer wants: bright polishing, tumbling polishing or vibratory grinding (deburring) and more.

Electroplated surfaces

Electroplated surfaces are possible in barrel and frame goods according to DIN and customer standards. Almost everything is possible whether Ni, FeZn, ZnFe, ZnNi, silver or other materials.

equipment such as 3D measuring machines (optic, tactile and laser), contour recording devices, a surface roughness measuring device, microscopes with camera attachment, a residual soiling analysis device, X-ray fluorescence (layer density measuring), facilities for metallurgical analyses and many more.

Should corresponding 100% tests be necessary or requested by the customer, it is possible for us to offer them both camera inspections and eddy current inspections and implement them.



These tasks are completed by external partners with the same quality demand that forms the basis for our entire production.

Heat treatment

- Oxidation annealing
- Recrystallization annealing
- Gas nitrocarburisation and post-oxidation
- Kolsterising
- Plasma nitriding
- Stainihard

Quality assurance

In addition to numerous standard measuring instruments and a large number of article-related attributive items of test equipment and devices, we obviously also have

Documentation

A comprehensive system for the collection of operating and process data and an automated system for the recording of machine data, MES, were installed successfully. The obtained data is used in order to detect any weak spots and to avoid any wastage of resources.

Our integrated management system IMS provides complete information throughout the company. All of the processes are described here in addition to all of the documents being placed on file centrally.

MARKETS AND LOGISTICS

Markets

Automotive

For example, housings for airbags, ABS, lambda probes, sensors, fuel regulation, guide tubes, locking systems, heating cartridges and hub caps. More than 60 % of our production is for this market segment.

E-Mobility

For example, deep-drawn components such as plug-in connectors for hybrid cars and electric vehicles.

Sanitary equipment

For example, components for shower hoses, shower fittings and water taps.

Electrotechnology

For example, parts for lighting technology and components for floodlight installations.

Household appliances

For example, temperature sensors for coffee machines and dish-washers, bearing housings for washing machines and components for gas meters.

Locking technology

For example, sleeves for locking cylinders, covering and decorative caps.

Control and measurement technology

For example, housings and guide sleeves for switching and proportional magnets as well as sleeves for sensor equipment.

Mechanical and plant engineering

For example, components for the controlling of pneumatic and hydraulic systems.

Individual logistic concepts

Customers profit from our flexible logistics from the material supply to the production and the delivery according to needs. The logistics concept is determined by the individual requirements of the customers.

- Setting-up of minimum stock levels
- Non-returnable or reusable packaging
- Customer-specific special solutions

Service

Our customers can rely on us at all times. Their needs are our priority. We are not satisfied until our customer is satisfied, too. This applies to all phases of our customer relationships: from the first meeting and the initial consultation, to the design and tool construction, production, quality control, and delivery.

This maxim is firmly rooted in our corporate mission and is also put to practice. We deliver proof of this on a daily basis, during ups as well as downs. Our competent staff at company headquarters will connect you directly to the person you need.

We assist with developments.



Locking systems



Cap for a locking cylinder

VOCATIONAL TRAINING AND SOCIAL ASPECTS

Vocational training

As we have already stated, our employees are our greatest assets. The extremely demanding products and the very special deep drawing technologies this entails make it necessary to employ highly qualified specialists in all of our business units. These are not always available in the job market so that we see it as being a major concern to train the specialists we require ourselves, so as to provide the people who come to us and who are mainly young, with sound training.

We provide training in the following professions:

- Tool mechanic in punch technology (m/f)
- Punch and forming mechanics (m/f)
- Managerial assistant in industry (m/f)

We can also offer dual studies.

We also promote the corporate identification even during the training period, including measures such as our annual vocational training day. The trainees also remain with the company after they have completed their training.

Social aspects

We obviously also permanently endeavour to make the work activities interesting and diversified and improve the work environment of our employees. We also offer the staff much more however! A qualified physiotherapist can also be consulted for a massage, for example.

A large number of our employees also participate in a running group or go on cycling tours.



Brake for commercial vehicles



Installation controller with manual trip



Parking brake for an automatic transmission

We also participated in various official runs, including marathons. Another example: a company soccer team plays against friendly companies from time to time. We have been able to win some trophies as a result.

We do all of this in order to make a small difference and to gain a reputation as an attractive employer, both now and in the future. The result is an extremely low fluctuation level.



König is king.



You want to know more about vocational training with J.C. König? Simply scan the QR code.





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