



### Since 1920: Made in Germany



# Prototyping and Development



In 1920 Gottlieb Roll founded an engraving and stamping business in Idar-Oberstein, a city well-known for its sophisticated jewellery industry.

Roll became well-known for the manufacturing of filigree metal components for the jewellery- and furniture industry. After the Second World War the company grew under the management of Richard Roll into a modern business, supplying the stationary industry with metal parts for pens and pencils worldwide.

Today, run by the 3rd and 4th generation, our company is the world leading supplier of metal components to the writing industry and still produces exclusively in Germany. Our highly qualified technical staff and decades of experience are the roots of a long-standing successful partnership with our customers.

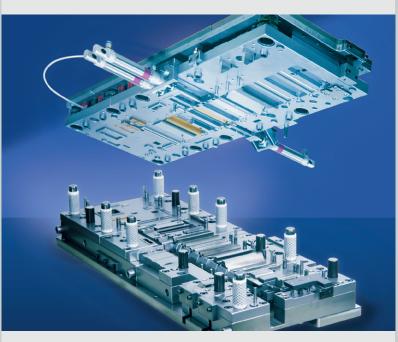
Roll develops system solutions, technical solutions and new products in a close dialogue with its clients.

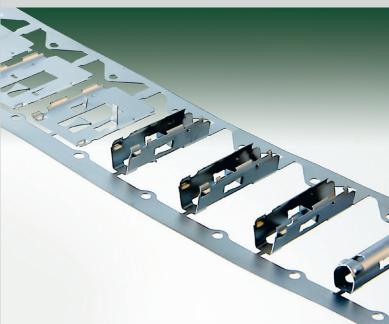
Our experienced team offers the development of prototypes. These prototypes are produced with similar methods as used in the follow-on composite tools. The results obtained during the prototyping process can therefore be reproduced in the later mass production process.

Prototyping allows us to provide our customers not only with design samples but with fully functional parts. Mechanical qualities can thus be tested during the early stages of development.

# In-house Toolmaking and Special Engineering

### **Stamping process**





We are designing and constructing all stamping- and follow-on composite tools in-house. Direct control of the entire production process allows us to remain flexible, react promptly and produce tools of high quality.

A set of different tool concepts answers to our customers' respective requirements. The follow-on composite tools are both suitable for small-lot production and mass production.

Our automatic stamping machines are capable of a pressing force of up to 100 tons and a lifting frequency of up to 1200 strokes per minute. The strip material used is up to 320 mm wide and between 0,1 mm to 1,5 mm thick. It can be processed in tools of a length of up to 2 meters. Besides steel and stainless steel strips also nonferrous metal is employed.

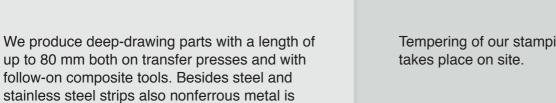
Each year millions of stampings are thus produced both economically and with high precision for our customers worldwide.

The parts can be additionally tempered and surface treated in-house. A high degree of automation furthermore guarantees a very good price-performance ratio.

### **Deep drawing**

#### **Heat treatment**





Also the deep-drawn parts can be surface treated in-house.

employed.

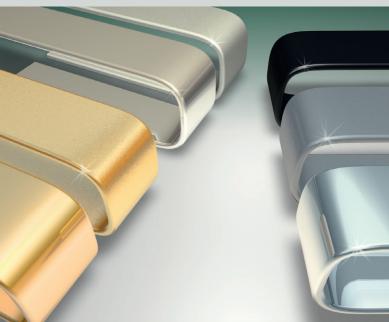


Tempering of our stamping parts

## Mechanical surface treatment

# Electroplating (decorative)





For the mechanical surface treatment (deburring, polishing, brightening) we use different machines and methods.

For the mechanical surface treatment of cylindrical and conic work pieces (e.g. deep-drawn products) circular grinding machines are used.

A variety of grinding media allows us to optimize our processes and meet our clients' requests.

Roll offers electrolytically deposited electroplated layers of barrel- and rack quality.

## Our standard surface finishes (barrel plating):

nickel brightnickel/gold brightnickel/white bronze bright

## Our standard surface finishes (rack plating):

nickel/gold bright

nickel/chrome bright or dull

nickel/black chrome

Additional finishes will be offered upon request.

## Gottlieb Roll GmbH & Co. KG

Friedrich-Ebert-Ring 13 55743 Idar-Oberstein Germany

Tel. +49 6781 203-0 Fax: +49 6781 203-33 technik@roll-clip.de www.roll-clip.de



