



## Forging steel since 1891.

**We develop, produce and market sophisticated, customer-specific product solutions made of steel.**

Over 125 years of experience makes us experts when it comes to closed-die forging, heat treatment, metallurgy, welding processes, machining and manufacturing of components.



### Forging methods:

- Closed-die forging
- Hot extrusion



### Process reliability:

- Simulation of the processes
- Automation
- In-process quality assurance

### Advantages and properties of forged components:

Optimised weight and increased fatigue strength.

### Due to:

Defined grain structure, high ductility, high core density.

**Our rail traffic customers rely on our products to guarantee that their trains pull into the next station as smoothly as possible.**

**Please get in touch for further information and our tailor-made solutions.**



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ON THE TRACKS 



## Partner of the railway industry

- Closed-die forging
- Heat treatment
- Machining
- Hot extrusion
- Welding
- Manufacturing of components





## Range of products for the railway industry



### Solid wheels

Ø 440 - 750 mm

w 60 - 510 kg



### Wheel bodies / Wheel tyres

Ø 450 - 795 mm

w 55 - 320 kg



### Bevel gears

Ø 480 - 640 mm

w 60 - 260 kg



### Bevel pinion shafts

Ø 215 - 380 mm

w 33 - 145 kg



### Steering knuckles

axb 170x610 - 360x645 mm

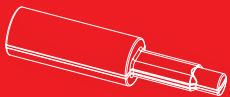
w 85 - 160 kg



### Bearing brackets

axb 200x200 - 330x520 mm

w 40 - 75 kg



### Draw bars

Øxl 160x450 - 200x900 mm

w 55 - 150 kg

## Rail industry range of services

We are among the very few specialists in forged components for railway industry. Our forte is the cost-effective production of small and medium-sized batches of exceptional quality.

### Machining

Machinery specialised for:

Turning	up to Ø 1.300 x 950 mm
Milling (X/Y/Z)	1.050 mm / 510 mm / 510 mm
Machining centres	up to Ø 920 x 1.800 mm

### Materials engineering

Steel grades:

Carbon steels  
Quenched and tempered steels / case-hardened steels  
Austenitic steels  
Ferritic / martensitic steels (stainless)  
Duplex steels (stainless)

Heat treatment:

+QT (hardening and tempering)  
+N (normalising)  
+FP (isothermal annealing)  
+A (soft annealing)  
+AT (solution annealing)

### Quality management

Certificates:

DIN EN ISO 9001:2015  
DIN EN ISO 14001:2015  
DIN EN ISO 50001:2018

Approvals:

American Bureau of Shipping  
Bureau Veritas  
DNV • GL  
Lloyd's Register  
DIN EN 15085-2 CL1  
AD 2000-Merkblatt W0  
DGRL 2014/68/EU  
KTA 3201.1 Abs. 3 u. KTA 3211.1 Abs. 3

### Testing methods

Our own laboratory offers destructive and non-destructive testing.

### 3D measurement

X-axis: 1.200 mm  
Y-axis: 2.000 mm  
Z-axis: 1.000 mm