

ZOLLERN

Inductive hardening

Delivery program

Hardening

Hot-rolled, cold-rolled and cold-drawn ZOLLERN special steel profiles, as well as contract hardening of provided material

Cross sections

From 2 x 2 mm up to 125 x 60 mm

Achievable hardness values

Up to 64 HRC

Hardness zones

Can be individually designed

Hardening depth

0,6 – 10 mm

Straightness and torsion

ZOLLERN standard 1 mm/m, also more precise by request

Through hardening and through tempering

Up to a diameter of 22 mm

Materials

Nearly all steel alloys capable of hardening

Delivery possibility

Rods 2.5 m to 9 m and finished parts



ZOLLERN

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ZOLLERN

Solid metals. Fine solutions.

Steel profiles and finished parts

Inductive hardening

- Surface hardening
- Through hardening
- Tempering

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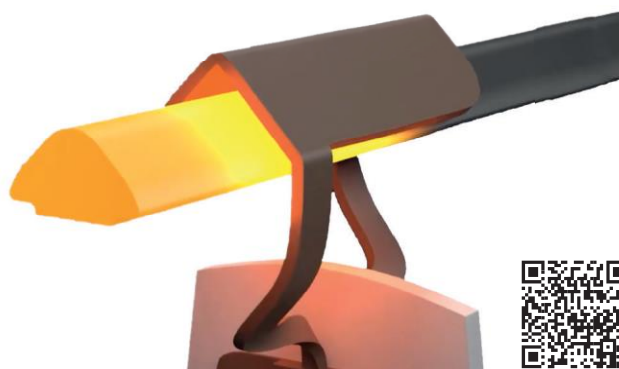


Individual design Economic solutions

Economic solutions are more in demand now than ever before. Wear-stressed zones are highly wear-resistance thanks to targeted hardening and retain their ductile core, which allows for a flexible and economic further processing. By using our special steel profiles, the material loss can be kept as minimal as possible. The risk of grinding and straightening cracks is also kept to a minimum. Other factors resulting during hardening, such as heavy scale, residual austenite, grain growth and edge decarburisation, are greatly reduced by short heating and austenitisation times.

Application examples

- Rolling-strained components
- Recycling and shredding (knives, blades, knife holders...)
- Linear guides
- Torsion rods
- Spring elements
- Quenching and tempering of gun closures
- Special gearing
- Running rails for logistics and automation
- Rotary rods with targeted mechanical properties
- the smallest, most challenging geometries are also possible
- and much more



Schematic process representation.



Process video

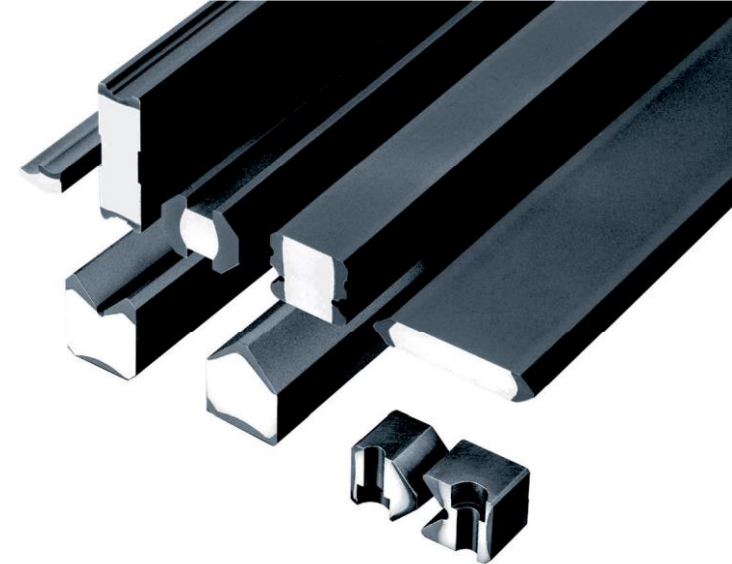
Your partner for wear-optimised steel profiles

On a production area of almost 20,000 square metres, ZOLLERN processes different, application-specific materials into first-class steel profiles.

ZOLLERN Steel Profiles combines this with an inductive hardening shop, thereby offering expertise in the field of inductive hardening, through hardening and through tempering from a single source. In addition to the steel profiles we produce, custom and standard dimensions, such as flat, square and polygonal dimensions, are also induction heat treated on a contract basis.

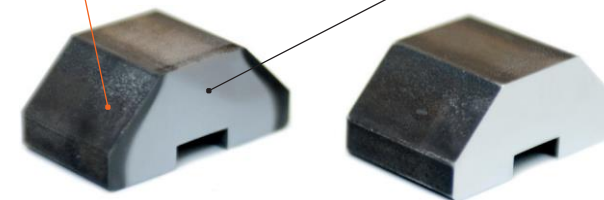
Features and advantages of ZOLLERN inductive hardening

- 100 per cent and reproducible quality
- The smallest diameters can be realised
- Residual stress-optimised steel profiles for the smallest distortion during hardening
- The best straightness and torsion thanks to optimised processes
- Precise hardening according to customer requests up to 64 HRC
- Years of expertise and in-house toolmaking
- High flexibility in further processing thanks to precise partial hardening in the surface layer
- Material savings do to minimum distortion, which reduces possible grinding tolerance to a minimum



Wear-resistant surface of up to 64 HRC

Soft and machinable core



The etching makes the surface hardened area visible.

Achievable surface hardnesses

