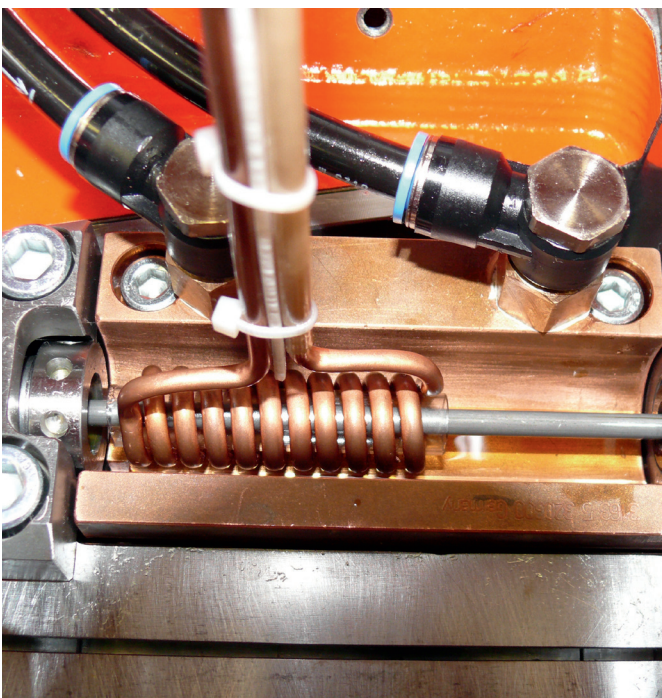


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The heating of  
special materials by induction



# Induction

## WAFIOS Umformtechnik – The heating of special materials by induction

With this integrable technology for induction heating, WAFIOS Umformtechnik is opening up new perspectives for various applications in the industry.

### How does induction heating work?

The induction heating of the wire is essential in many cases in order to be able to guarantee the subsequent forming of special materials.

An induction coil generates an alternating magnetic field and transfers the necessary energy contactlessly to the wire fed into it, through this the wire heats up and can be accordingly formed with lower press force. The temperature of the wire can be accurately controlled via the control technology.

### Advantages

- Wire heating in the immediate vicinity of forming.
- Optimised material flow and thus higher quality products.
- Tool life extended many times over.
- It may even be possible to form with fewer pressing stages.
- Difficult materials such as titanium alloys only become formable at all through heating.



	HD 4	HD 6	HD 7	HC 5FT HC 8F	HM 5 HM 8-3	H 550/650	H 580/680
Induction heating up to approx. 300°C (for example, stainless steel)	✓	✓	✓	✓	✓	✓	✓
Induction heating up to approx. 900°C (for example, titanium)	✓	✓	—	—	—	✓	✓
Additional option „pneumatically controlled gripper hand“ possible	✓	✓	—	✓	✓	✓	✓

# The heating of special materials by induction

## Induction heating for what?

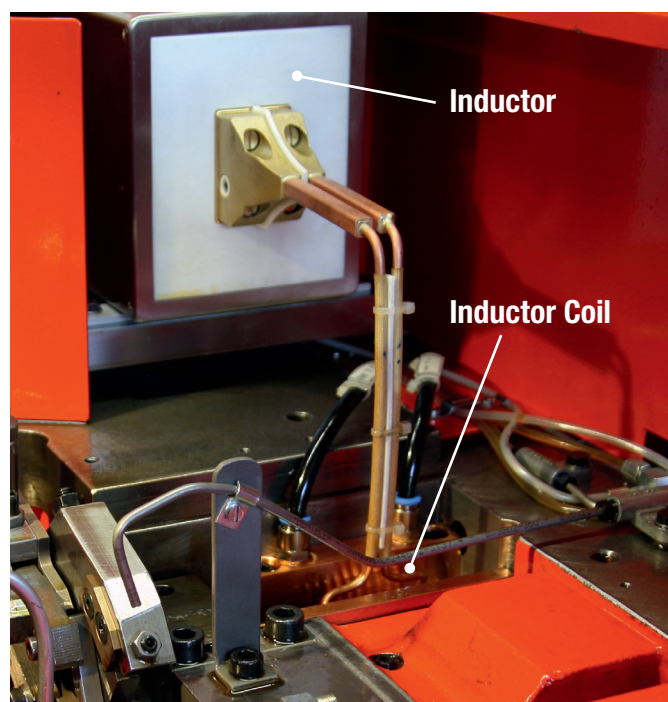
Examples of applications can be found with special materials, for example, in sectors in the

- Automotive industry
- Aeronautical and aerospace engineering
- Electrical / electronics industries
- Medical engineering

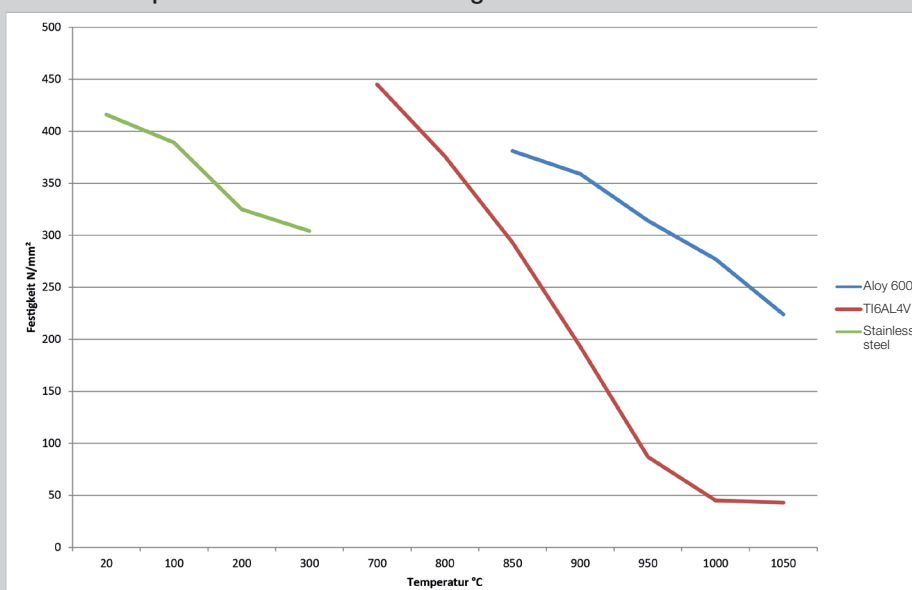
Many well-known manufacturers in these industry sectors use WAFIOS Umformtechnik forming machines with induction heating all over the world to form high-strength materials at high speed.



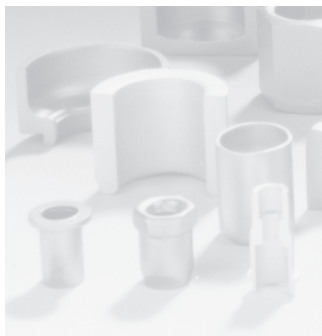
▼ Induction heating stainless steel



Effect of temperature on the tensile strength of materials



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The specifications are not binding as  
these could vary on account of technical  
developments.

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