High power laser source for sophisticated copper components

The system we use works with a high peformance 1.000 watts laser system, which can be used universally for different materials. The advantages of this system are particularly evident in the following areas of processing copper for electrically and thermally challenging applications:

- up to 100 % IACS electrical conductivity
- more than 99.95 % purity
- excellent mechanical properties
- large layer thicknesses possible
- building space allows large, one-piece geometries
- solder and weld joints can be reduced to a minimum

Your requirement is our demand!

We would be pleased to support you in the transfer of conventionally manufactured components into the additive manufacturing principle. Our know-how in the field of modern 3D printing in combination with our decades of experience in the field of machining makes us to an efficient partner for you!

We support you from the idea up to the qualification in series production with our qualified team.

Interested?

Do not hesitate, our sales team is available for you at any time:

Phone: +49 (0)6233 375 47-0
Mail: sales@gb-z.de

GBZ® PRECISION TOOLS
The art of precision

GBZ Mannheim GmbH & Co. KG
Adam-Opel-Str. 7 · 67227 Frankenthal
www.gb-z.de

Professional 3D printing of copper for sophisticated applications

The art of precision

GBZ®

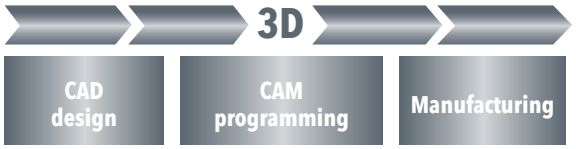
GBZ® … from additive manufacturing to machining …

3D metal printing – the perfection of the three-dimensional process chain

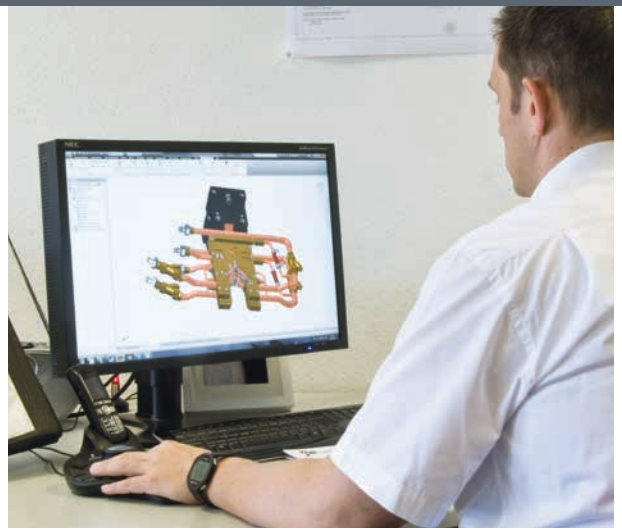
Back in 2015, GBZ Mannheim GmbH & Co. KG carried out the first trials in the field of additive manufacturing of copper components. What began at that time together with external partners, is now being successfully used in series production by manufacturing in on our own system.

The principle of 3D printing of metals enables the completion of the process chain, which begins with design and development, continues with the programming of production equipment and ends with this new manufacturing process.

All the facets that CAD offers can now be almost completely implemented in reality. Many limitations, that previously had to be observed due to machining no longer exist.

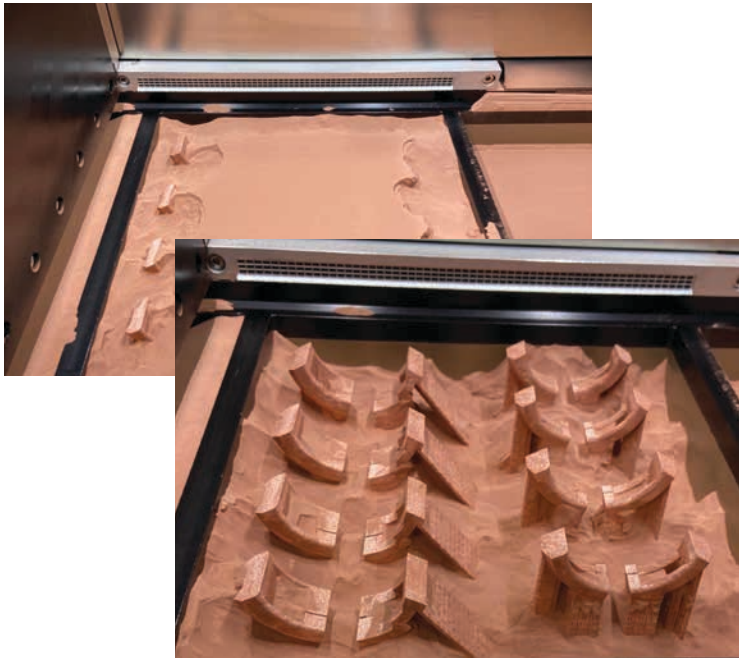


Last but not least, the combination of 3D printing and conventional machining offers an optimal symbiosis, which combines the advantages of both principles and leads to an improvement in design and quality for a large number of components. The seamless integration of additive manufacturing of metal components into our existing range of services offers individual and tailored solutions for your requirements.



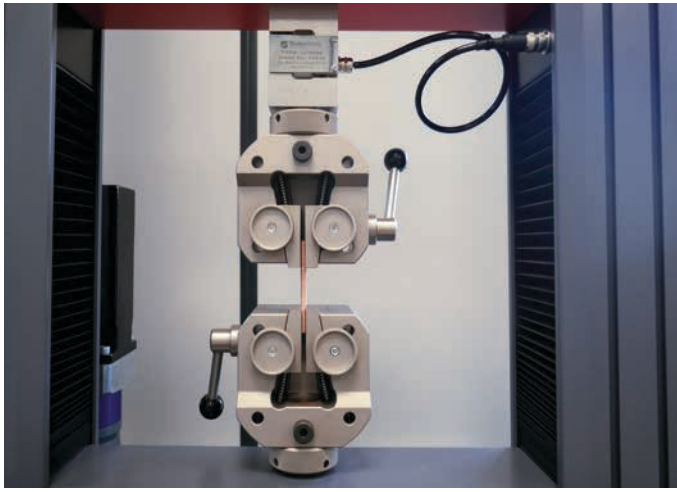
Professional data preparation as a preliminary stage for additive manufacturing

Additive manufactured heating coil for hardening inductor



Arrangement of components in the powder bed during 3D printing

Professional manufacturing – Professional measurement equipment



Of course you will receive from us a certified quality control, which is in no way inferior to the production technology. Optical and tactile measuring instruments ensure quality, which guarantees a high level of process reliability.