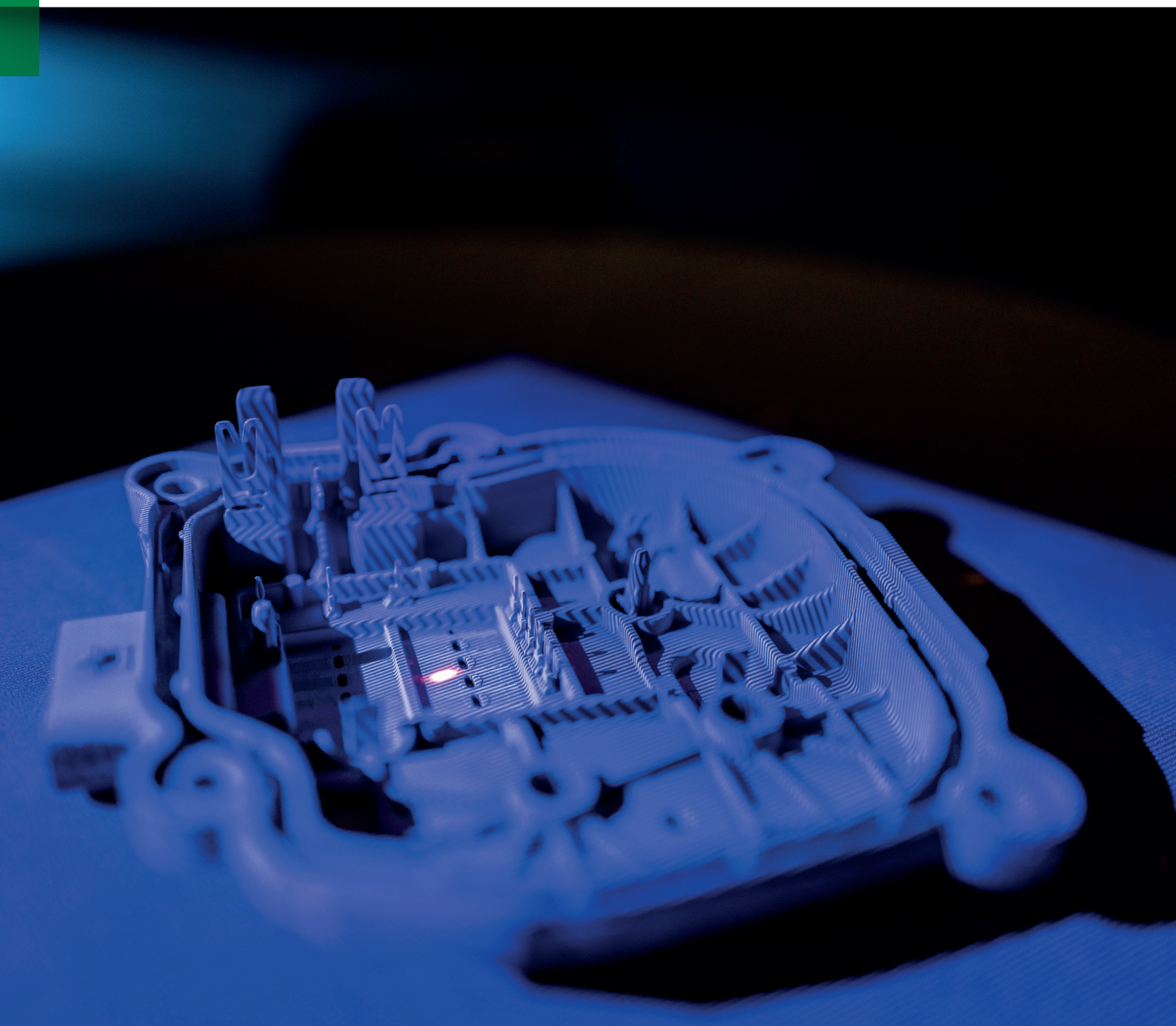
SCHAEFFLER

We pioneer motion

Additive manufacturing with metal multi-material

Unique material combination and function integration

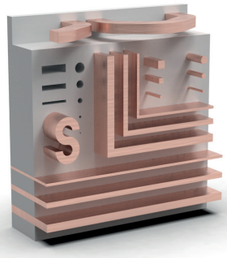


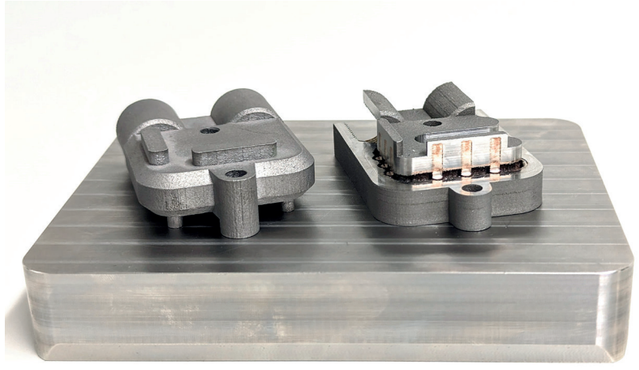
3D printing with the use of different materials

Our multi-material printing process
Together with our partner Aerosint, we have developed an advanced 3D printing system capable of producing 3D printed parts using a combination of different metals and ceramics. Our goal is to take a holistic approach to production, from the design of the 3D geometry to the completion of the component.

The metal multi-material printing is pioneering the revolution of healthcare, aerospace and automotive industry.

In cooperation with our partners, we offer a **comprehensive range of services** that includes the machine, including the corresponding software, and the provision of the printing material.
In addition, we additionally provide **complementary services** such as „Design to Print“, where we support our customers in the design of their 3D models, as well as services around measuring and calibration to ensure that the 3D printed products are of high quality and reliably produced by our machine.





Edelstahl und Kupferdruck

Innovative material coating process

The printing process
involves the deposition of material on the print bed in layers. Our innovative technology enables the use of up to three different materials, which are supplied by integrated powder reservoirs into the recoater. There, the material powders are arranged pixel-wise on the build platform and deposited layer by layer. During the scanning step, the part iscreated. Multiple laser sources and scanners can be used to process a wide range of materials efficiently. The printing process itself takes place in a sealed process chamber, filled with argon inert gas.

Machine details:

- Component size: 250 mm x 250 mm x 250 mm
- Precision: 0,2mm
- Layer thickness: 40-200 µm
- Density: e.g. copper 99% & steel 99.9%

Customer benefits through multi-material printing

New perspectives thanks to multi-material printing
In many areas, 3D printing has already established itself as an alternative to the conventional production of workpieces that were traditionally manufactured by sawing, grinding, milling or ablation. In this context, multi-material 3D printing opens up almost unlimited possibilities.

Our 3D-muldimaterial printing empowers you for

- Unique material combinations
- New functional integration in components & tools
- Flexibility in design for individual, free design of products & tools
- Fast response to changing market requirements and designs
- Faster tool (re)production

Our unique competence

in 3D multi-material printing lies in especially in the know-how for the machine and the entire process chain.

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