



**MT AEROSPACE**

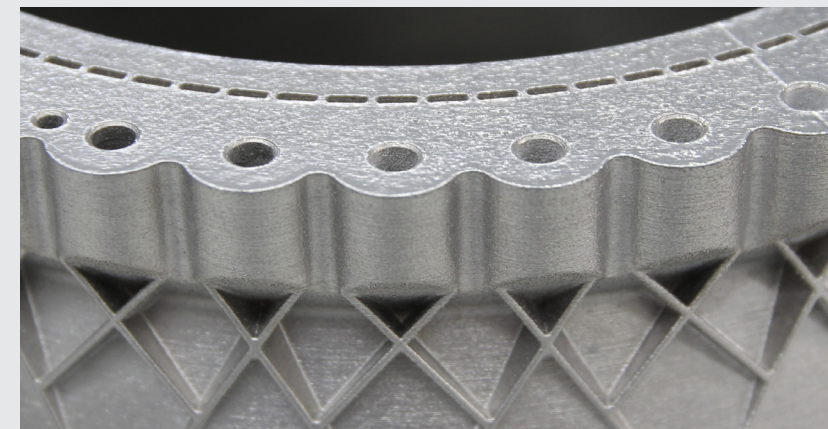
An OHB Company

MT Aerospace is a leading international aerospace company. More than 500 employees develop, manufacture and test components for institutional and commercial launch vehicle programs, for aircraft, satellites and for applications in the automotive and defense industries. Thanks to manufacturing technologies that are unique worldwide, MT Aerospace creates high-performance products that combine maximum performance and minimum weight. With many years of expertise in the fields of additive manufacturing, metalworking, CFRP and latest hydrogen technology, we are ideally placed to implement sustainable solutions for the future.

MT Aerospace AG  
Franz-Josef-Strauß-Str. 5  
86153 Augsburg  
+49 (0) 821 505 01  
info@mt-aerospace.de  
www.mt-aerospace.de 

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## **WE BUILD YOUR IDEAS FROM PROTOTYPE TO SERIES PRODUCTION ADDITIVE MANUFACTURING BY MT AEROSPACE**



**FREEDOM OF DESIGN**

We will advise you on the design for the manufacturing of your component and select which material is best suited to the technical requirements of your part.

**ONE STOP SHOP**

Everything from a single source: from an idea to the final component, we cover the entire value chain, including all relevant process steps.

**QUALITY ON SPACE LEVEL**

Quality is very important to us and we attach importance to quality assurance based on your needs. In addition to numerous laboratory analysis and test benches, the components can pass through a non-destructive testing (NDI).

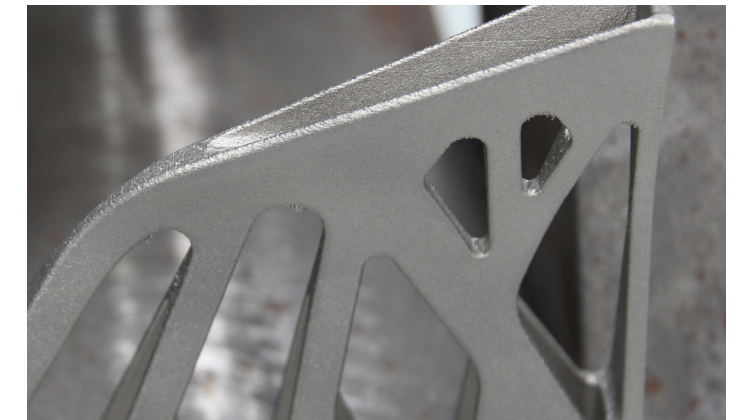
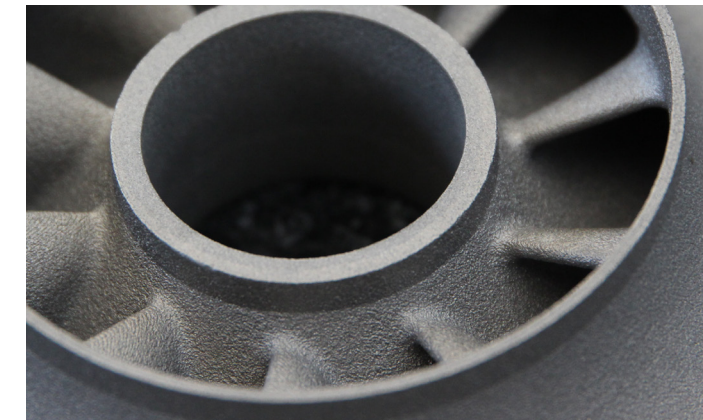


Our passion is the implementation of optimized structures without major production restrictions. We draw on more than 50 years of experience in the field of lightweight construction and component optimization for aerospace, automotive and defense.

**DIRECTED ENERGY DEPOSITION (DED)**

Like traditional CNC milling machines, our DED machines work in 5-axis mode. The DED process achieves higher melting rates than the Powder Bed Fusion process (PBF-M) and is particularly suitable for rotationally symmetrical components. Hybrid production from many different materials is possible and DED is also suitable for repairing defective components as it can be printed onto existing geometries.

In addition, DED is used to prevent corrosion and wear. A supporting structure is usually not necessary.



**POWDER BED FUSION (PBF-M)**

In the Powder Bed Fusion (PBF-M) process, powdered material is melted in a targeted manner using a laser. By repeating the process in a controlled manner, a component is created layer by layer. By fusing individual layers using a laser, almost homogeneous material properties with high density (~99.9%) and strength are created. PBF-M is particularly suitable for detailed and functionally integrated components with good surface quality.

**PRE PROCESSING**

- » Design for manufacturing
- » Topology optimization
- » Process simulation

**AM TECHNOLOGIES**

- » Directed Energy Deposition (DED)
- » Powder Bed Fusion (PBF-M)
- » Additive Friction Stir Welding (AFSW)

**POST PROCESSING**

- » Heat treatment
- » CNC & EDM
- » Coating & painting

**LABORATORY & TEST - BENCHES**

- » Tensile tests up to 120kN
- » Wet chemical analysis
- » Hardness measurements
- » Embedding, grinding & polishing
- » Corrosion testing
- » Cryogenic material testing
- » Special testing scenarios

**L-PBF - SLM**

- IN718
- IN625
- K500
- 316L
- IN61
- Ti6-4
- ALSi10Mg
- AlMgSc
- CuNiSiCr

**DED**

- 316L
- Ti6-4
- IN718

