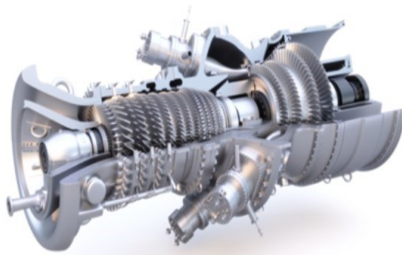


AIGC Services – 3D Printing

Case Study: 3D Printed Parts Manufacturing for Gas Turbines & More

The Opportunity



Turbomachinery is indispensable for energy generation. Its high-performance parts feature complex, high-tech designs that need to be more and more robust and powerful as the demand for energy increases. In addition, turbomachinery parts need to be resistant and reliable – even at temperatures beyond the melting point. Additive manufacturing can solve many of these challenges and is suitable for numerous applications such as blades and vanes, fuel injectors, impellers, swirlers, burners and combustion chambers, cladding, seals, housings, and much more.

The Approach

The 3D metal printing process offers the right technological foundations for

implementing an optimized cooling strategy, among other things. Parts can be designed and made to transport and apply energy with increasingly precise focus. Innovative repair processes, for example, are revolutionizing the efficiency of turbomachinery parts by building at worn areas directly on the original part.

The Benefits

- Improved quality and efficiency
- Drastically reduced lead time
- In-house IP and manufacturing capacity: less dependency & less storage of spare parts