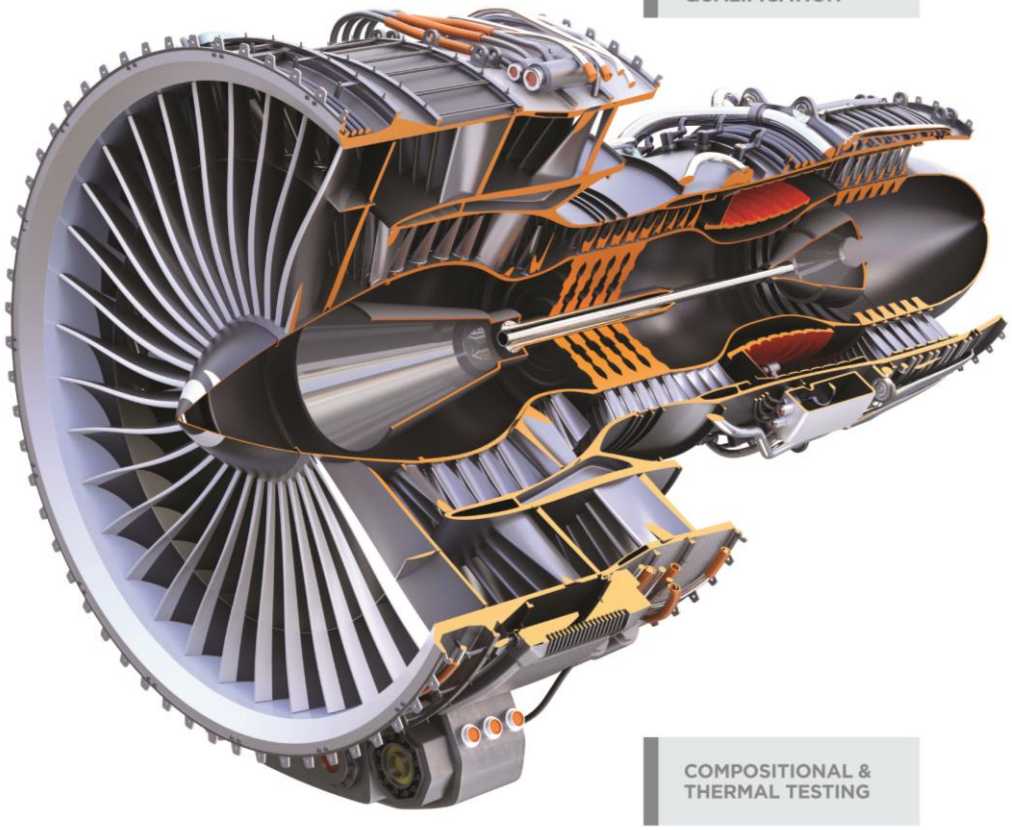
LUCIDEON
insight creating advantage

SERVICES FOR AEROSPACE

- ADDITIVE MANUFACTURING SUPPORT
- AMBIENT & HIGH TEMPERATURE MECHANICAL TESTING
- COATING DEVELOPMENT & QUALIFICATION
- COMPOSITIONAL & THERMAL TESTING
- FAILURE ANALYSIS
- GLEEBLE TESTING
- HIGH TEMPERATURE EROSION & OXIDATION TESTING
- LUBRICANT EVALUATON
- MATERIALS DEVELOPMENT
- MICROSTRUCTURE EVALUATION



MICROSTRUCTURAL EVALUATION

Lucideon has broad expertise in the evaluation and qualification of superalloys and thermal barrier coatings (TBC) used throughout the aerospace and energy industries. From evaluation of gamma prime, alpha case and orientation in titanium and superalloys to thickness, chemistry and bond evaluation in TBCs, we have the resources and experience to augment your internal teams.

FAILURE ANALYSIS

Lucideon performs extensive testing to predict and reduce failure risks in application. We can also perform root cause identification of failures should the failure have occurred in application, as well as recommending corrective actions. Laser marking failures are commonly seen; we help you to understand the impact of the process on the material, and to optimize the conditions to prevent reoccurrence.

ADDITIVE MANUFACTURING SUPPORT

Additive manufacturing offers a wide range of benefits and opportunities for the aerospace sector, but is not without its challenges. At Lucideon we help you navigate the obstacles of component testing and validation, materials and process development, failure analysis and third party benchmarking, to develop an AM product that is fit for purpose.

THERMAL ANALYSIS

Whether you are trying to understand the composition of a polymer, metal or ceramic material or trying to identify unknown contamination in a material, Lucideon has the capabilities and experience to provide answers. Our full suite of composition and thermal testing capabilities allow characterization of materials from -150°C up to 1,500°C.

OXIDATION & EROSION TESTING

Simulating real life operating conditions is not always as easy as it may sound, especially when you are talking about the hot zone of a turbine engine. At Lucideon, we have on-site burner rig facilities, along with access to state-of-the-art high temperature erosion equipment, which allow the characterization of your material systems at even the most demanding operating conditions.

CORROSION ANALYSIS

Stability and safety are of the utmost importance for aerospace components, especially where multiple materials are used and the environment changes. We offer expert materials selection and long and short-term performance testing to ensure that your products function without fear of excessive corrosion leading to failure. If corrosion does occur, we also help you to understand why, and make the necessary changes to your product design.