

# WIND SERVICES

VENDOR &  
COMPONENT  
QUALIFICATION  
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ALLOY & MATERIAL  
SELECTION

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CONVENTIONALLY  
& ADDITIVELY  
MANUFACTURED  
PART QUALIFICATION

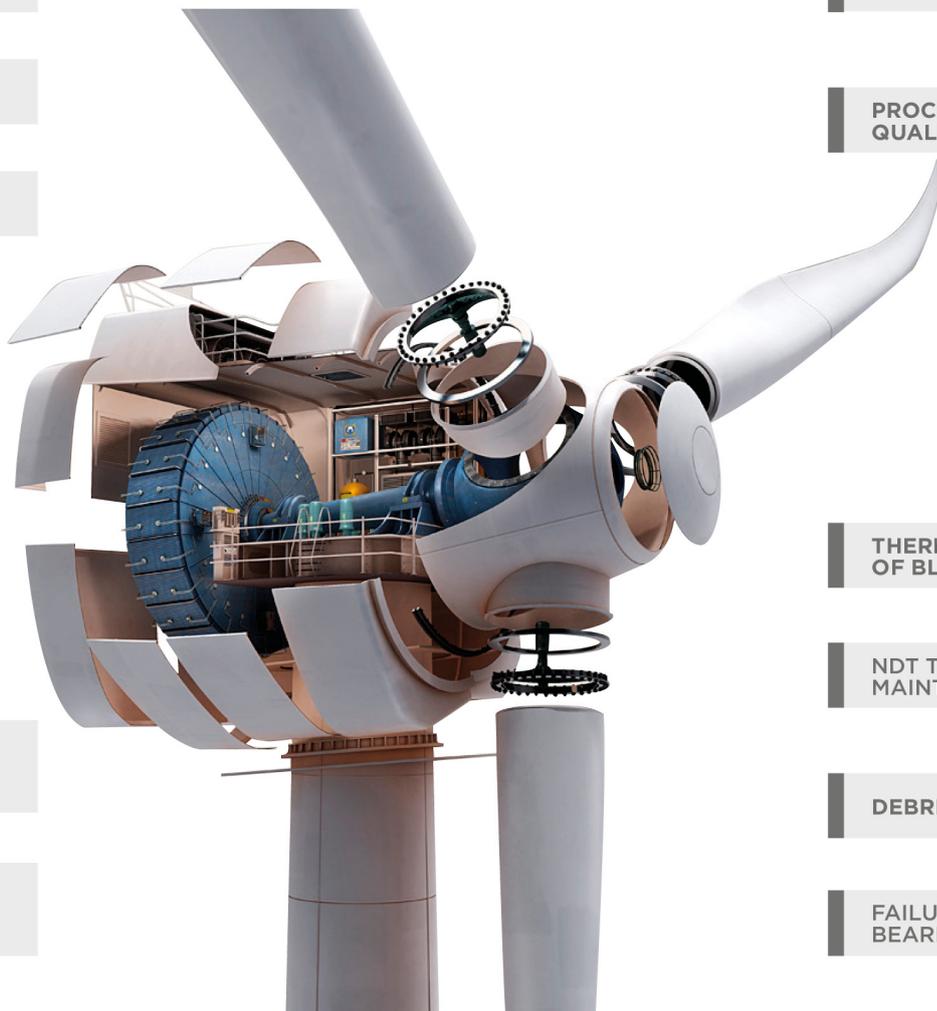
PROCESS & REPAIR  
QUALIFICATIONS

THERMAL ANALYSIS  
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NDT TO SUPPORT  
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DEBRIS ANALYSIS

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BEARINGS & BABBITT



## CONVENTIONALLY & ADDITIVELY MANUFACTURED PART QUALIFICATION

At Lucideon, we offer a range of comprehensive support services, including analysis of powder materials and raw stock, metallurgical evaluation, chemical analysis, mechanical property characterization, failure analysis and recommendations for improvement.

## ALLOY DEVELOPMENT & SELECTION

Utilize our materials expertise to expedite selection of materials fit for custom applications, and develop incoming material specifications to ensure supplier quality.

## CORROSION ANALYSIS

We provide expert metallurgical evaluation of components to determine if the root cause of premature corrosion damage is due to material or manufacturing deficiencies, or to environmental factors.

## METALLOGRAPHIC CROSS-SECTION EXAMINATIONS

Imaging and analysis of a wide variety of materials, including metals, welds, brazes, coatings, ceramics, composites and concrete is provided to examine grain size, microstructure, porosity, constituent distribution, phases, bonding interfaces, and dimensional measurements, all documented with high-quality photo macrographs and micrographs.

## ROTOR-LEAD TAB RE-LEAD INSPECTIONS

Our experts assess the quality of workmanship and materials used via fractography, resin system assessment, arc damage inspection, foreign material identification, and examination of features of interest.

## FATIGUE EVALUATIONS

Utilize Lucideon's experience in determining the failure mechanisms that cause premature fatigue and degradation to predict life expectancy, and source or develop superior products.

## VENDOR & COMPONENT QUALIFICATION TESTING

We offer third-party independent inspections and specification testing to verify the quality of materials and manufactured goods for sale, acceptance testing for OEM and regulatory compliance, and property validation for new product offerings.

## PROCESS & REPAIR QUALIFICATIONS

Our experts provide data and evidence that supports utilizing new techniques and procedures to provide high-quality, repeatable results.

## NDT TO SUPPORT MAINTENANCE

We can examine degradation of components to assess life expectancy, determine if repairs will be adequate or if replacement is required.

## DEBRIS ANALYSIS

Our state-of-the-art analytical techniques can provide information about the chemical composition of materials, received in solid, liquid or gaseous form. Results can range from qualitative to quantitative in nature, and data can be provided in numerical form, graphical spectra or color-composition maps layered on top of images of materials. This determines if the source is component degradation or introduction of contaminants.

## THERMAL ANALYSIS OF BLADE MATERIALS

Assessments of the quality of materials and manufacturing procedures utilized to fabricate blades are conducted by polymer experts who utilize techniques including TMA, DSC and TGA.