EnginSoft is a premier consulting firm in the field of Simulation Based Engineering Science (SBES) with a global presence. It was founded in 1984, but its founder and initial employees had been working in SBES since the mid '70s. Throughout its long history it has been at the forefront of technological innovation and remains a catalyst for change in the way SBES and CAE technologies in general are applied to solve even the most complex industrial problems with a high degree of reliability.

Today, EnginSoft is comprised of groups of highly qualified engineers, with expertise in a variety of engineering simulation technologies including FEM Analysis and CFD, working in synergic companies across the globe. We are present in Italy, France, Germany, the UK, Turkey and the U.S.A. and have a close partnership with synergetic companies located in Greece, Spain, Israel, Portugal, Brazil, Japan and the U.S.A.

EnginSoft works across a broad range of industries that include the automotive, aerospace, defense, energy, civil engineering, consumer goods and biomechanics industries to help them get the most out of existing engineering simulation technologies.

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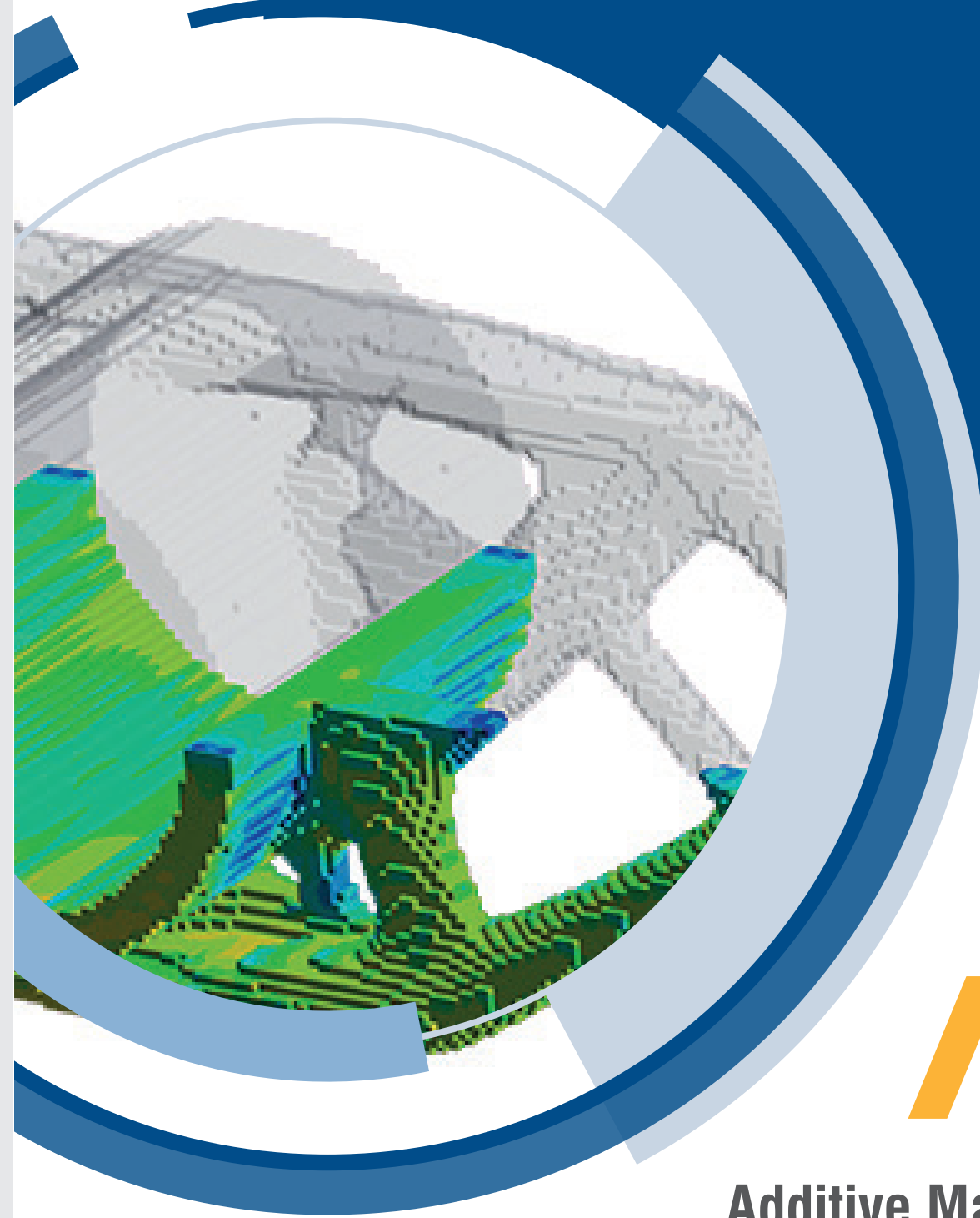info.uk@enginsoft.com

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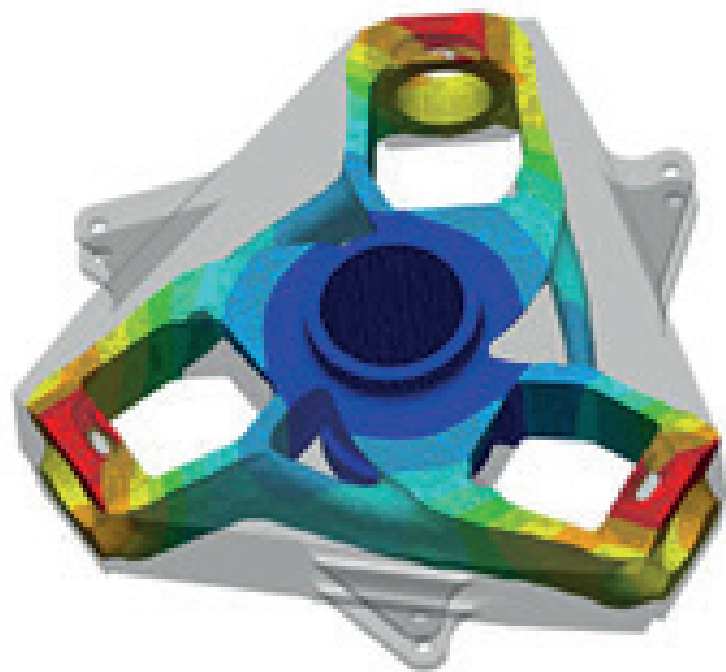info@enginsoftusa.com

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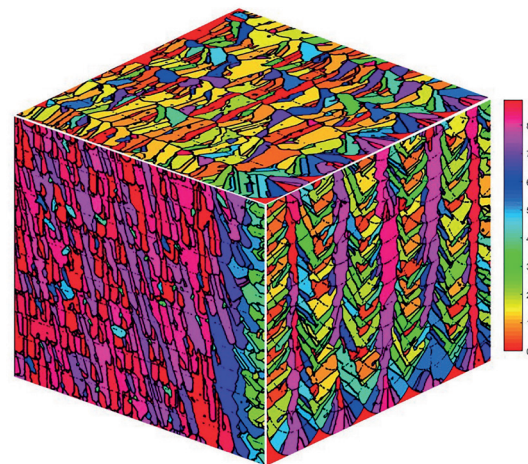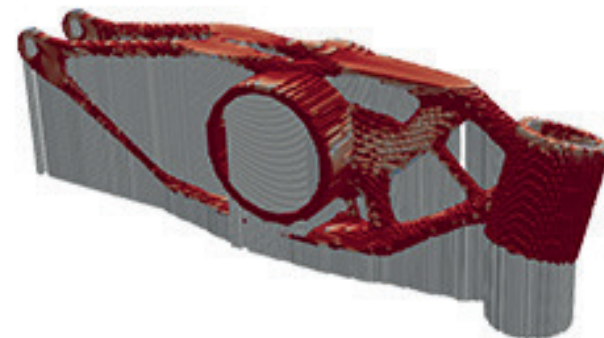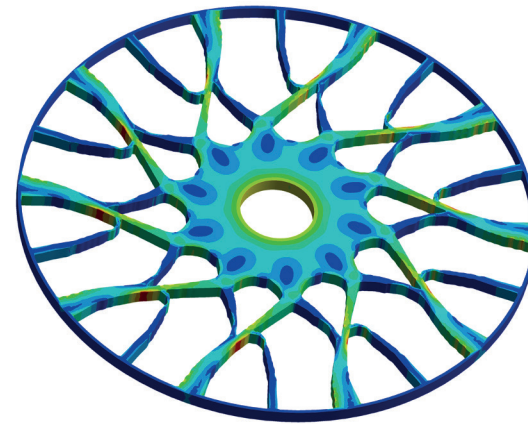
DATA SHEET

Ansys

Additive Manufacturing Solutions
The most powerful simulation solution for metal additive manufacturing

Ansys Additive Suite delivers the critical insights required by designers, engineers and analysts to avoid build failures and create parts that accurately conform to design specifications.

This comprehensive solution spans the entire workflow - from design for additive manufacturing (DfAM) through validation, print design, process simulation and exploration of materials.

Ansys Additive Suite is a product

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Additive Manufacturing Solutions
The most powerful simulation solution
for metal additive manufacturing

Topology Optimization
For weight reduction and lattice density optimization

STL File and Geometry Manipulation
For geometry repair, lattice creation and cleanup of parts using the software's faceted data tools

Structural and Thermal Analysis and Design Validation
Full nonlinear, including transient, and linear analysis capability to validate designs under a vast range of scenarios. Both thermal and structural loading conditions can be applied to models to understand performance and durability.

Workbench Mechanical Additive Process Simulation
Native feature in Ansys Mechanical for predicting part shape, distortion and stresses before printing. It facilitates the set up and solving of print simulations, while offering maximum flexibility for adjusting workflow settings as needed.
- ✔ Simulate AM processes within the Ansys Mechanical environment
- ✔ Physics-based topology optimization with built-in manufacturing constraints for AM
- ✔ Generate efficient lattice structures
- ✔ Simulate the thermal-mechanical build process for accurate prediction of part distortion and stresses
- ✔ Use of nonlinear and temperature-dependent material properties (with no inherent strain assumptions)
- ✔ Efficient HPC performance scaling with Ansys HPC products

Ansys Additive Print
A stand-alone product for prediction of part shape, distortion and stresses, and for the automatic generation of optimal support structures and distortion-compensated STL files.
- ✔ Final shape of the printed part
- ✔ Layer-by-layer distortion and stress
- ✔ Optimal support structures
- ✔ Distortion-compensated STL files
- ✔ Potential blade crash

Ansys Additive Science
A stand-alone application for design-stage investigation of materials and optimal machine parameters.
- ✔ Determine optimum machine/material parameters
- ✔ Control microstructure and material properties
- ✔ Manufacture using new metal powders faster and more efficiently
- ✔ Reduce the number of experiments needed to qualify components
- ✔ Create process qualification procedures based on comparisons between simulation-predicted "correct" — and sensor-measured "actual" - machine behavior