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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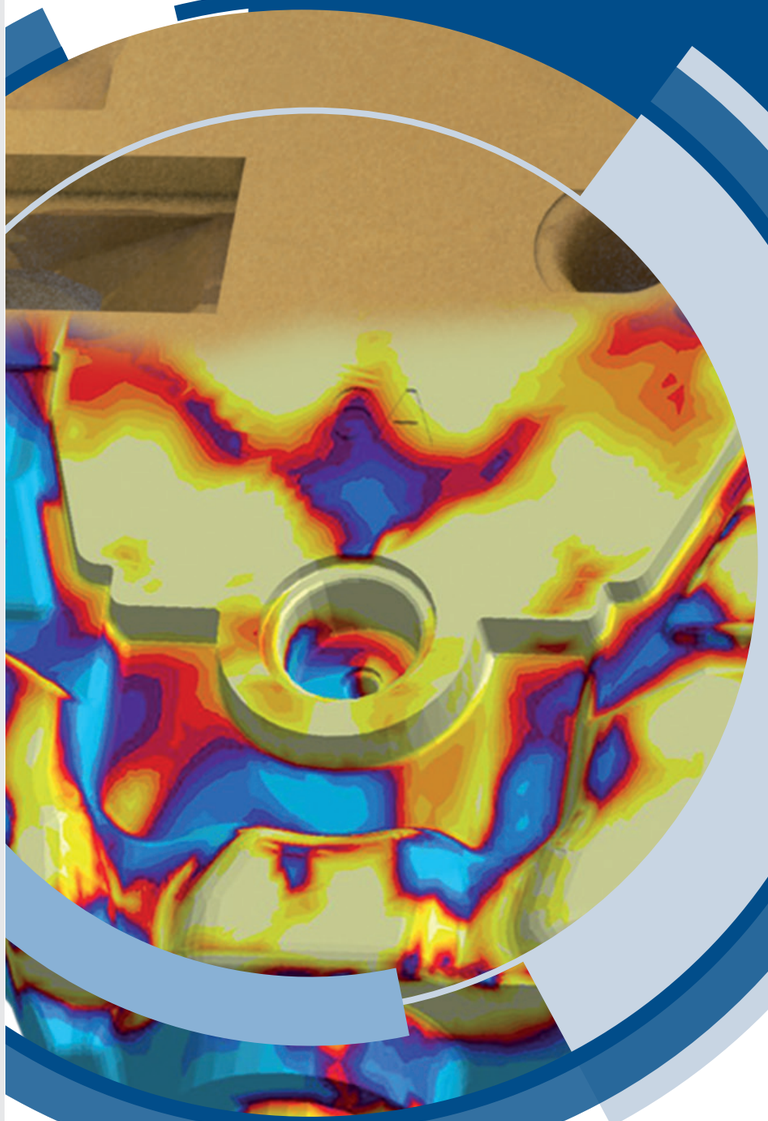
DATA SHEET



MAGMA5

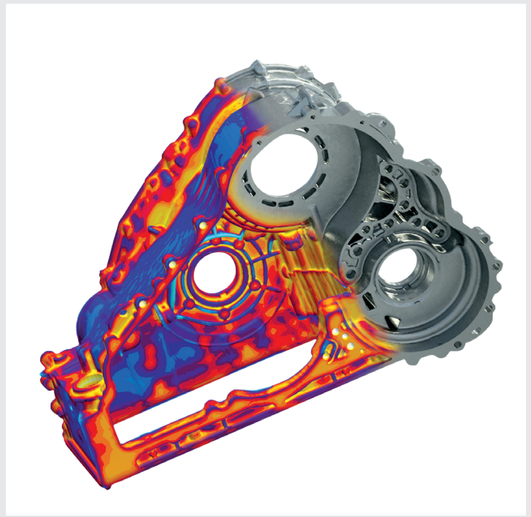
Simulation and virtual optimization of casting processes

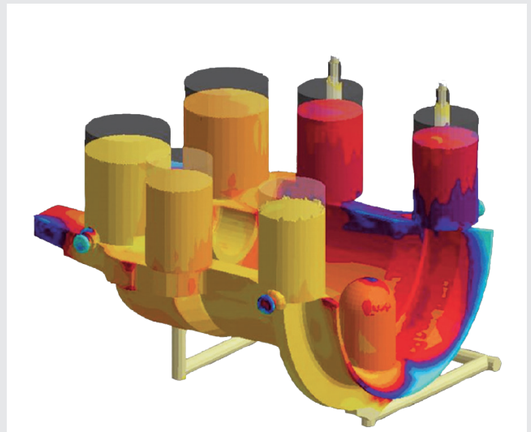
MAGMASOFT® is the comprehensive and effective optimization tool for improving metalcasting quality, optimizing process conditions and reducing production costs. Consequently utilizing the methodology of virtual Design of Experiments and Autonomous Optimization, robust process parameters and optimized casting layouts can be established for all cast materials and processes including heat treatment and melt metallurgy – efficiently and comprehensively at the same time.

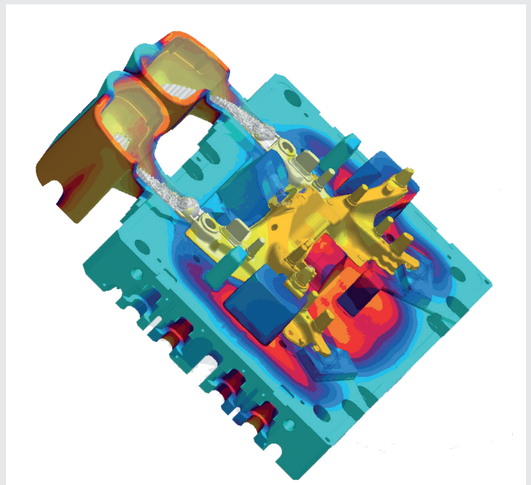
By means of Autonomous Engineering, simulations with MAGMASOFT® can be used in an automated virtual test plan to pursue different quality and cost objectives simultaneously. Broad knowledge and tangible hands-on instructions/measures are generated considering design and process conditions for mold filling, solidification and cooling. The range of results comprises residual stresses and distortion, microstructure formation and local properties.

A modular software design covers the complete process chain of cast components. The software can be applied for optimized process robustness and part quality from conceptual to final component design, during the tooling layout and prototyping, all the way through to the production and heat treatment processes.

MAGMA5 is a product







Simulation and virtual optimization of casting processes

Main Benefits

- ✓ Supports all cast materials and all aspects of casting manufacture
- ✓ A virtual test field for the reduction of metalcasting defects
- ✓ Identification of optimal process conditions for robust process windows early and reliably
- ✓ Faster decision making to establish saving time for all parties involved
- ✓ Improvement of quality management by generating systematic understanding how process variability affects quality
- ✓ Reliable and early information to designers for robust product and process development