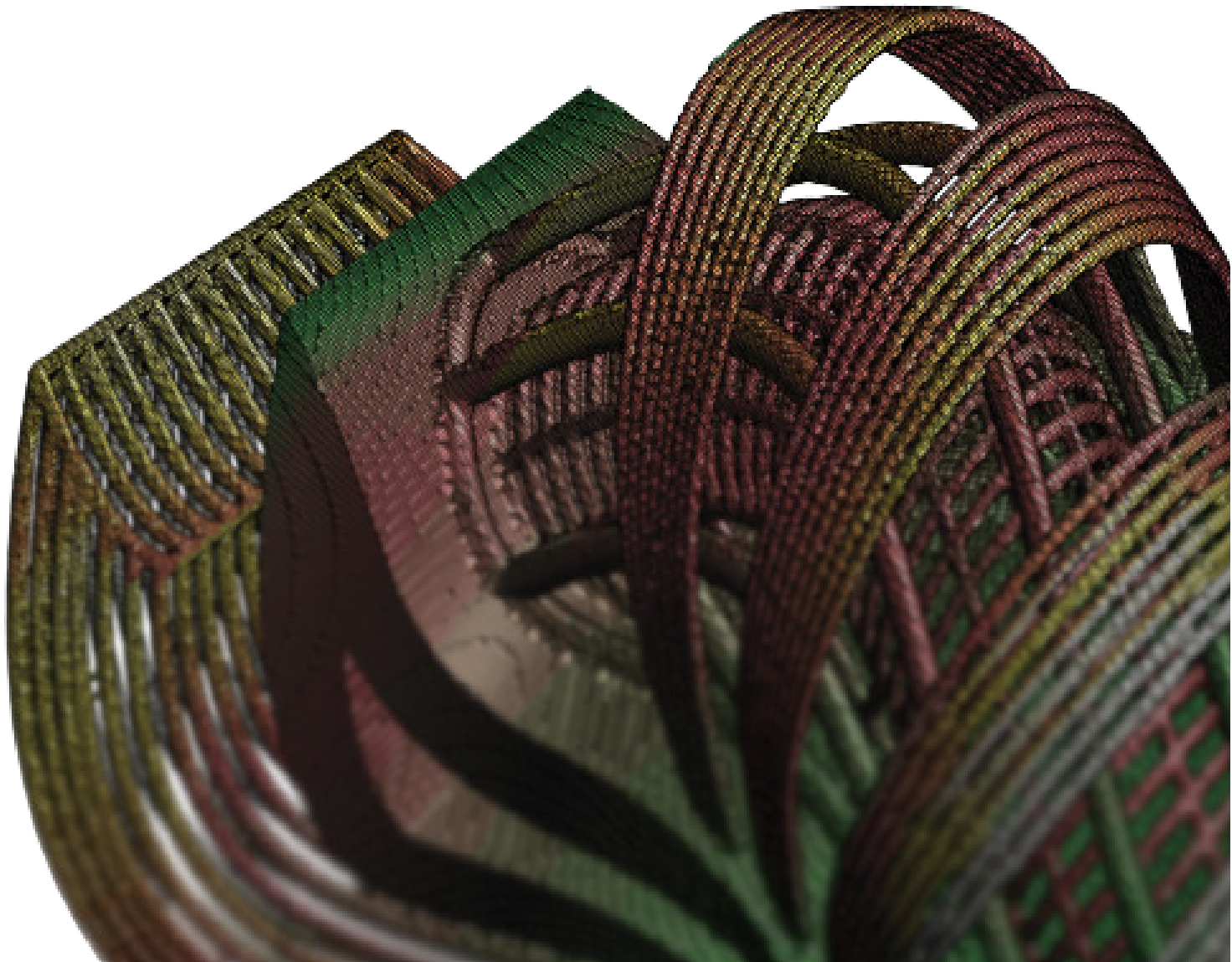




Simulation-based software solutions for Additive Manufacturing



Technology and product overview
Laser Beam Melting

OQTON

About our technology

Reduce cost per part, lead times and increase part to boost your AM business case! Easy-to-use simulation-based process preparation tools aiming at one-click Laser Beam Melting...



Examiner Module

- Determine the ideal orientation for your additive process
- Calculate indicators for you're the impact of orientations on various criteria (e.g. build time, part distortion, post processing effort)
- Get fast feedback on printability of designs



Support Module

- Ensure process stability by avoiding support delamination
- Determine optimized regional support densities in order to reduce support volume
- Automatically generate support walls according to optimization results



Predeformation Module

- Compensate part distortion by using simulation results
- Automatically generate predeformed or deformed geometries
- Automatic refinement of generated STL files
- Export as STL or CLI file



Mechanical Process Simulation Module

- Enhanced inherent strain based, best in class simulation engine
- Automatic calibration based on an experimental specimen
- Recoater interference detection
- Reliable prediction of process-induced strains, stresses and residual deformations



Thermal Process Simulation Module

- Derive strategies to achieve thermal stability for your build jobs
- Evaluate the impact of job setups and layer times on build rates and temperature evolution
- Optimize build jobs in order to avoid heterogenous material properties, shrinkage etc.

Product Overview

Amphyon is a comprehensive standalone software tool, incorporating all of our technology modules. Apart from its ease of use, it comes with a huge variety of state-of-the-art features:

- Find the ideal build up orientation
- Optimize and generate support structures
- Get fast feedback on printability of designs
- Achieve thermally stable build job set ups
- Avoid recoater interference
- Compensate stress induced distortion

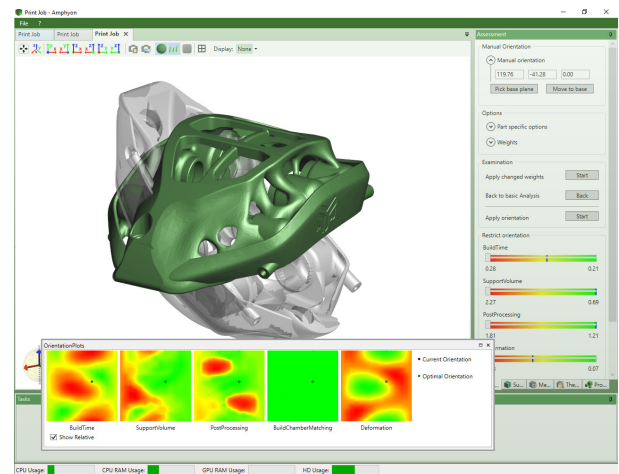


Amphyon was designed to assist designers and process engineering in preparing metal AM build jobs by understanding and solving manufacturing issues like part distortion or support delamination. By enhancing part accuracy and minimizing failure rates, quality and profitability of your metal AM business unit can be significantly increased!

Why additive works

If your business is often confronted with many new and/or complex, geometries, our standalone will be the tool of choice to prepare processes based on simulation knowledge

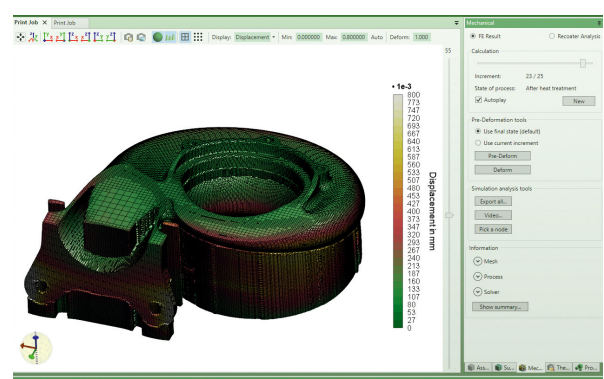
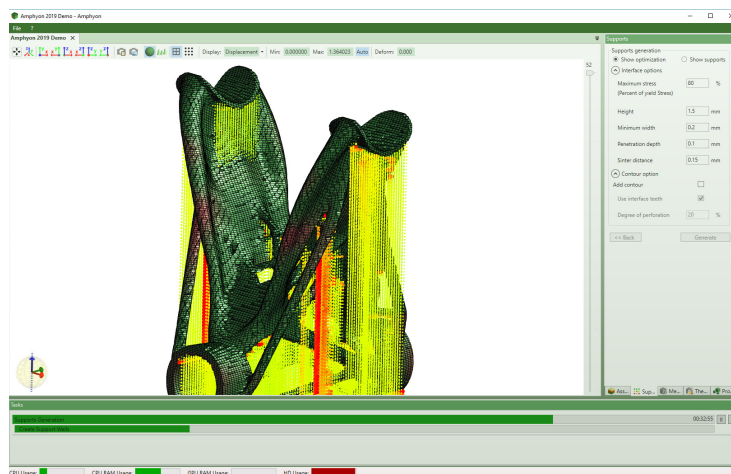
Thereby, significant reductions in cost per part as well as lead times can be achieved by eliminating, trial-and-error based process preparation.



Premium support services

In addition to our software license, Amphyon experts will use their profound knowledge of metal AM processes to identify issues with your processes and determine build job set ups that will give you optimal results in terms of part quality and machine utilization, including

- Problem Identification
- Development of simulationbased solution
- Simulation Benchmarking



Get In Touch

Contact us for a demo at hello@oqton.com

