



Materialise
Magics

Metal Support Generation Module (SG+)

Optimize Your Metal Production with Support Generation

In Metal Additive Manufacturing, support structures fulfill a larger purpose than supporting the part during the build process. They also minimize deformation, prevent build crashes and, when smartly designed, reduce post-processing work.

The Materialise Magics SG+ Module offers you all the tools needed to find the optimal orientation of your part, a wide range of support types to ensure good anchoring and heat transfer, and more.



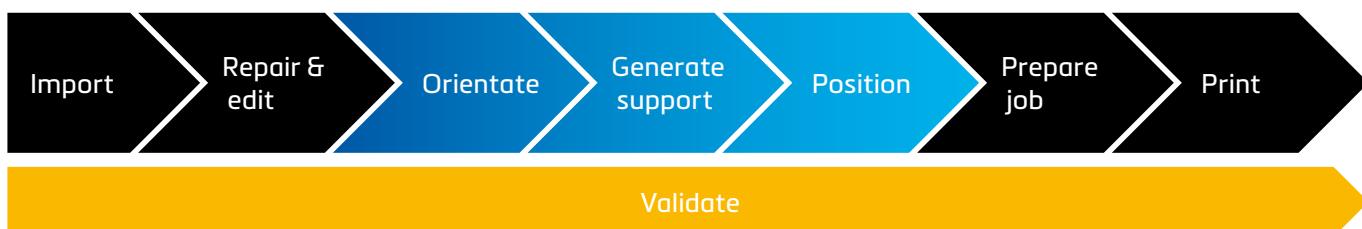
"The Materialise Magics SG+ Module is a fascinating software that enables us to print beautiful, high-quality metal parts."

The support generated by the software really satisfies our needs."

Sung Min Kang, Deputy General Manager at Research & Development, Daegun Tech

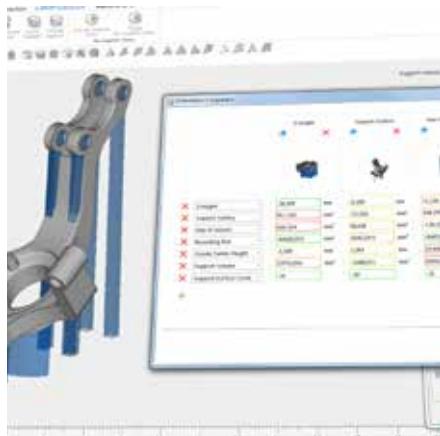
How the Metal Support Generation Module Can Help You Along the Metal AM Process

Data preparation software Materialise Magics is based on an in-depth understanding of the mechanisms behind the Metal AM. With the guidance of the Materialise Magics SG+ Module, printing metal parts becomes less of a challenge.



materialise.com/software

materialise magics
3D print suite



The Right Orientation for Successful Builds

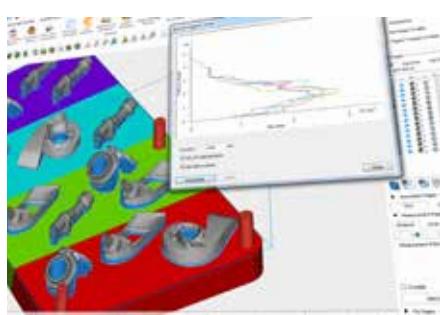
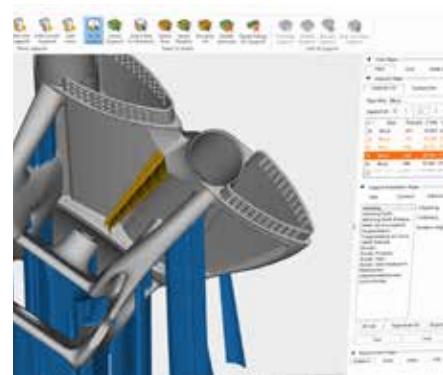
- Indicate no-support zones to avoid support generation on surfaces that require high aesthetic quality
- Compare different orientations to find the right balance between speed, quality, buildability, post-processing, and more
- Preview the supports and get real-time feedback while orienting the part
- Minimize support structures and decrease material usage

Validation tools

- Analyze the build risk due to differences between surface areas of consecutive layers and visualize it directly on the part

Optimal Support for Every Geometry

- Set custom parameter profiles and automatically create surfaces and support structures
- Fine-tune the proposal and optimize it to your needs while staying in control of all the parameters
- Choose the proper support type for any kind of geometry: combine the strength of solid supports with the flexibility of non-solids
- Take advantage of cone and tree supports for small and thin parts, as for example jewelry
- Export support as a separate STL file or slice it together with your parts



Fast Build Platform Positioning

- Achieve the right position via autopositioning

Validation Tools

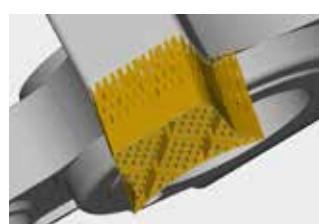
- Avoid warping and control the heat build-up of your platform by limiting the surface area of each layer, using the detailed analysis offered by the slice distribution graph
- Avoid collisions between parts, support structures and no-build zones

Reasons to Choose the Metal Support Generation Module



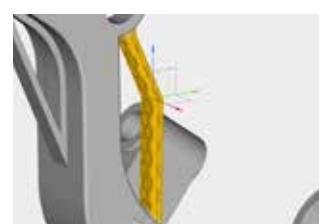
Solid support

Ensure heat conduction to reduce deformation and internal stresses while creating a strong platform connection.



Fragmentation and toothed break-off points

Remove support easily while maintaining surface quality.



Angled support structures

Avoid unnecessary contact points and significantly reduce finishing time.



Hybrid support

Combine the optimal surface quality offered by block support with the reduction of trapped powder offered by solid support.

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For more information about Materialise Magics, contact us at: software@materialise.be or visit our website materialise.com/software