

# netfabb SUPPORT STRUCTURES

Use the best software for your SLM, SLA and DLP machines

# THE COMPLETE Additive Manufacturing software



netfabb Support Structures is a quickly returning investment that enables you and your Additive Design and Manufacturing (ADM) business to unlock the full productivity and all the capabilities that modern manufacturing machines have to offer. Add support structures for the Selective Laser Melting (SLM) and Stereolithography (SLA) technologies to your parts with just a few clicks.

Besides the easy to use support generation workflow, netfabb covers the whole data handling toolchain as well; from CAD conversion or 3D scan alignments to mesh editing and build job preparation to slicing, and finally exporting data to the machine.



# WHY do I need support structures at all?

While most ADM technologies extend the design possibilities unknown to traditional manufacturing methods, it is important to know that complexity is not for free.

For example, in heat-based processes like Selective Laser Melting the whole build chamber in the machine does not heat up homogeneously, but instead has to endure highly focused temperature gradients. This leads to heat dissipation effects that are impacted largely by the supporting geometries, while on the other hand too much support material drives up the costs of removing them after the process.



## WHY NETFABB Support Structures?

When manufacturing using SLM, DLP and SLA technologies, economic success is crucially dependent on the applied support structures. An intelligent and easy-to-use software like netfabb allows you to keep the workload, invested time and material consumption as low as possible. The details matter, if you want to run a successful and profitable ADM operation.

The netfabb Support Structures module was born out of the needs of one of the largest Industrial Additive Design and Manufacturing factories in the world. netfabb Support Structures will also improve your business and increase your profits.

### MORE FACTS

Use anchor points to adjust where the support entities touch the model - realtime and in 3D.

Define, save and reuse your own macros and settings for automatic support generation taylored for your needs.

Determine and predefine the size, shape and properties that surfaces must have in order to be supported.

Differentiate between a critical and a non-critical angle to determine where the support lattices are "optional" and where they are a "mandatory".

Use the transparent model view to look inside even the most complex part geometry and adjust the support entities as needed.

User levels allow to adjust all parameters down to every single detail. Use netfabb Support Structures to build up your own expertise and competitive advantage.



# Full FLEXIBILITY with a variety of support types

Use one single software to cover your support requirements. Be flexible and apply support structures to different part areas and to different angles. Choose between bar, point, tree, bouquet, polyline, wall, volume and block support structures, with detailed adjustment available to all support entities.

Combine different supports types on the same model and apply the supports manually or let netfabb do all the work for you. Choose or predefine the right strategy, depending on your part category, the used material, and technology.

MORE FACTS

Add structures inside of hollow models.

An intuitive and practical user interface – very quick to learn and easy to use.







### Added **VALUE** for productivity

Don't waste more time on file preparation than necessary – let netfabb automatically add the support lattices to your models and keep your focus on the quality assurance of the whole manufacturing process instead.

With the configurable geometrical feature detection, analyse your part and apply the support geometries only where they are necessary. With this not only will you save your production materials but also the resources required for part-finishing.



## **COMPATIBLE** with most AM machines

Create support lattices in seconds and export them in various 3D printing file formats like STL, 3MF, OBJ, X3D, ZPR, VMRL et al. and slice formats like SLI, CLI, SLC, SLC, SSL, ABF, SLM, CLS, USF, CLF, PNG, BMP, SVG, DXF, BINVOX et al.

Export support-slices and part-slices separately from each other to your machine and manufacture them each with different machine settings. Use netfabb for slicing to always have 100% error-free slice files.



## Most AFFORDABLE professional AM software

Overpaying for software in additive manufacturing has been a long-time issue for many users. netfabb offers the most affordable industrial software solution for Additive Design and Manufacturing - thus allowing to access the technology to many more engineers in the organisation.

While netfabb licenses are life-long licenses, with optional annual upgrade agreements you may obtain operational continuity as well. Choose between a variety of settings on how the connection between support, part and platform ground shall be created.

Define break-off points to later quickly and carefully detach the support lattices from the parts.

netfabb Professional / Enterprise 6.0 or higher is required as the basis for the netfabb Support Structures add-on.



1/15

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