



QuickCast Air™

3D Systems QuickCast Air is an advanced tool that supports the creation of lightweight, hollow parts with resin-based printers to support the casting of end-use metal components. It automatically optimizes material efficiency in patterns to help customers that seek maximum efficiencies in material reduction and process speed improvements. These material and time efficiencies transform the 3D printed cost model for casting end-use parts compared to traditional injection molded wax patterns.

Maximizes Weight Reduction

QuickCast Air builds the lightest and most hollow parts possible. There is a potential for resin reduction of up to 50% depending on the parts geometries. Even with the dramatic reduction in weight and support structures, parts achieve similar overall strength of parts using alternative build styles. Utilizing casting pattern designs with fewer structures within self-supporting walls results in less material having to be burned out. Having less internal structure makes it easier to drain resin, thus retaining more resin in the vat during the draining process versus losing it in additional downstream processes.

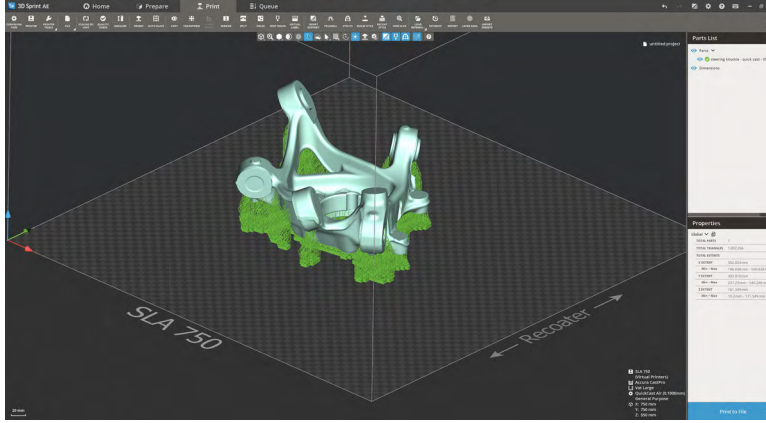
Faster Turnaround Times

The build style QuickCast Air creates mostly hollow casting patterns by reducing the support structures required within each casting pattern. As support structures are minimized, there are less vectors to print within the part resulting in faster build times. Turnaround times between builds is reduced creating the potential to print more builds per year.

Key Benefits

- Build lightest and most hollow parts possible
- Reduce material consumption
- Improve build times and printer availability
- Maximize material removal from casting pattern interiors
- Reduces labor in post-processing steps





Improved ROI

Material consumption can be reduced up to 50% compared to alternative build styles. Patterns created using QuickCast Air are designed to maximize material removal from the interior of casting patterns. As a result, material consumption decreases, the cost of patterns is reduced, build times are faster, burnouts are cleaner, and draining efficiency is improved. It is now possible to produce high precision investment casting patterns at a fraction of the time and cost of traditional tooling, without limitations on geometric complexity. Additionally, lighter parts lower the handling and freight costs. Reduced build times helps to increase a printer's availability and the potential number of parts it can produce.

Easy Processing

Out of the printer, parts are easier to handle. Thanks to continued improvements in the 3D Sprint software, users can now easily adjust the part's shell thickness and unlimited placement of vents and drains on any surface, making the part stable irrelevant of the build orientation. This reduces the need for manual hole drilling, reduces the risks of breakages and minimizes pattern drain times. The QuickCast Air build style can be used in combination with QuickCast Diamond™ to leverage the strengths of each pattern for the respective shapes within cast patterns.

QuickCast Air is an advanced tool that is an add-on for 3D Sprint software. This feature is available via an annual subscription that allows customers to design casting patterns with fewer structures within the self-supporting walls. QuickCast Air offers a significant advancement in digital foundry solutions, enabling faster, cost-effective production of complex cast parts and demonstrating a commitment to improving investment casting efficiency.



Printers Enabled for QuickCast Air

- SLA 750 Dual
- SLA 750
- ProX 800

Material Options for QuickCast Air

- Accura CastPro™
- Accura Fidelity
- Accura 60

