



The Fuse 1+ 30W SLS Ecosystem

High Performance Selective Laser Sintering Within Reach

formlabs 



Fuse 1+ 30W

Designed for maximum output and minimum waste, Fuse 1+ 30W is a compact SLS 3D printer that packs an industrial punch.

SAME-DAY PARTS

Unlock rapid in-house 3D printing and deliver high-precision parts within a day thanks to a powerful 30W laser.

SLS 3D PRINTING MADE EASY

Easy-to-use hardware and software are designed to get you up and running quickly and maximize your efficiency at every step of the process.

INDUSTRIAL-GRADE MATERIALS

Produce durable parts that can withstand heavy use with industry-standard materials that benefit from fine-tuned settings and inert gas printing capabilities.

COMPACT AND SCALABLE

A compact footprint and modular ecosystem make the Fuse 1+ 30W suitable for any environment.

Materials

Unlock high-performance SLS 3D printing with our library of industrial-grade materials, including nylons, stiff composites, and elastomeric powders.



Post-processing

An automated ecosystem that reinvents SLS post-processing to deliver ready-to-use parts with a professional finish in as little as 15 minutes.



Fuse Sift

Extract parts in just 5 minutes using this all-in-one powder management station for Fuse Series SLS 3D printers.

COMPACT, ENCLOSED SYSTEM

A negative air pressure system contains powder while enabling ergonomic part extraction from the unsintered powder.

AUTOMATIC POWDER REFRESHING

Fuse Sift automatically doses used and fresh powder with precision to help you minimize your cost per part and eliminate unnecessary waste.

NONSTOP PRINTING

Reduce downtime by transferring modular build chambers and powder cartridges between the Fuse 1+ 30W and Fuse Sift for a nonstop, cyclical workflow.

Fuse Blast

Reinventing SLS Post-Processing with a fully automated cleaning and polishing solution in minutes.

10 MINUTE HANDS-FREE PART CLEANING

Pre-programmed cleaning routines automatically process an entire build chamber in as little as 10 minutes, while media filtering reduces post-processing time on Fuse Sift by 80%.

CONSUMER-GRADE PARTS

The ionization system prevents dust and media from re-settling on your prints, for clean-to-the-touch parts, while the polishing function allows you to go the extra mile and deliver parts with a smooth, semi-gloss, scuff-resistant, dye-ready surface finish.

EXTENDED MEDIA LIFE

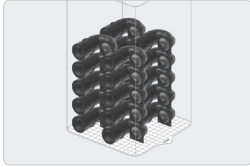
Minimize overhead costs thanks to the passive filtering system that reduces media saturation and extends media life by four to eight times.

From Design to Finished Part

An Innovative Ecosystem For A Streamlined And Intuitive Workflow

1

PreForm



Efficient Print Packing for Optimal Part Density

Use our free print preparation software, PreForm, to import STL, OBJ, or 3MF files, orient models, estimate print times, and pack parts for optimized density, reducing print time and limiting waste.

2

Fuse 1+ 30W

6-24 hours

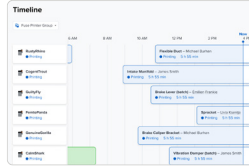


Fast and Reliable Printing

Easily set up your printer and achieve fast printing thanks to the 30W laser. Print same-day prototypes and enable small series manufacturing of durable end-use parts in under 24 hours.

3

Dashboard



Remote Monitoring for Peace of Mind

Take control of your production across multiple locations and machines. View printer availability, manage materials, track jobs, and receive notifications all in one cloud-based Dashboard to minimize downtime and maximize output.

4

Fuse Sift

5-10 minutes



Convenient, Compact Powder Management

Our all-in-one powder management station combines part extraction, powder recovery, storage, and mixing in a single device. Fuse Sift will dispense and mix used and new powder automatically so you can reduce waste and control your powder supply.

5

Fuse Blast

10-15 minutes



Fully Automated Part Cleaning and Polishing

Fuse Blast is an advanced automated finishing solution for SLS parts that quickly removes powder and consistently delivers professional parts that are clean to the touch. Deliver a smooth, semi-gloss, and dye-ready surface finish with the polishing option.

Tech Specs: Fuse 1+ 30W

Technology	Selective laser sintering (SLS) Class 1 Laser Product	Printer Dimensions (W × D × H)	64.5 × 68.5 × 107 cm (165.5 cm with stand) 25.4 × 27.0 × 42.0 in (65.0 in with optional stand)
Build Volume	165 x 165 x 300 mm 6.5 x 6.5 x 11.8 in	Weight	114 kg (without build chamber or powder) 251.3 lb (without build chamber or powder)
Layer Thickness	110 microns 0.004 in	Power Requirements	EU: 230 VAC, 7.5 A (dedicated circuit) US: 120 VAC, 15 A (dedicated circuit)
Laser Type	Ytterbium Fiber 30W	Warranty and Service	One Year Warranty included. Extended Warranty, Standard Service Plan and Premium Service Plan available.
Laser Spot Size	247 microns (0.0079 in)	Software Compatibility	Windows 7 and up // Mac OSX 10.6.8 and up
Material Refresh Rate	20% – 50%	File Type	STL, OBJ, or 3MF files
Build Chamber	Modular, compatible with Fuse 1+ 30W, Fuse 1 and Fuse Sift		
Print Support Structures	No supports necessary		

300,000,000+ Parts Printed With Formlabs Technology