



HIGH PERFORMANCE SELECTIVE LASER  
SINTERING WITHIN REACH

formlabs 

# THE FUSE 1+ 30W SLS ECOSYSTEM

**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 a broad range of industry-standard materials that meet the challenges of functional prototyping and production, or print with any 1064 nm powder with Open Material Mode.



# 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. The Sift Glovebox Bundle upgrade enables faster part extraction and transportation.

## **AUTOMATIC POWDER REFRESHING**

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.

## **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 AUTOMATED 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-READY PARTS**

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

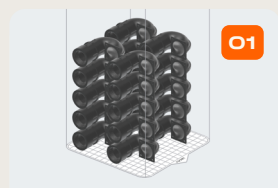
## **EXTENDED MEDIA LIFE**

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



## PREFORM

Efficient Print Packing for Optimal Part Density

Use our free print preparation software, PreForm, to import STL, OBJ, 3MF files, or models directly from a wide range of CAD applications, orient models, estimate print times, and pack parts for optimized density, reducing print time and limiting waste.

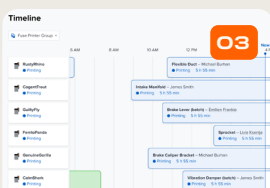


## FUSE 1+ 30W

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.



## 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.

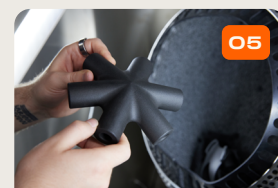


## FUSE SIFT

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.



## FUSE BLAST

10-60 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 drop-in Blast Polishing System upgrade.

## Tech Specs

FUSE 1+ 30W

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