



Fuse 1 + Fuse Sift

High Performance Selective Laser Sintering Within Reach

formlabs 

Fuse 1

A new wave of independent manufacturing and prototyping starts now with the Fuse 1. Bring production-ready selective laser sintering (SLS) 3D printing onto your benchtop.



SLS MADE MANAGEABLE.

Manage production and prototyping in-house, on-demand. The Fuse 1 delivers industrial power in a small footprint with effective powder containment and easy setup.



RELIABLE, CONSISTENT PRINTING.

With patent pending Surface Armor technology, a semi-sintered shell that prints around the surface of the part, the Fuse 1 provides competitive mechanical properties and surface finish without the prohibitive cost or hassle of competitor systems.



FAST, SIMPLE PRINT SETUP.

Use Formlabs PreForm print preparation software (free to use) to import STL or OBJ part files, orient and arrange models, estimate print times, monitor your printers, and upload job files.



DESIGNED FOR NONSTOP THROUGHPUT.

Add a second removable build chamber and additional powder cartridges to enable continuous printing and reduce downtime. Industry leading cooldown times allows you to start a print 1-2 hours after your previous print has finished.

“The Fuse 1 saves us time and resources from having to personally machine or otherwise make parts. We can go from design to print in days, rather than weeks. That extra time can be devoted to new product development and higher priority, more complex projects, while the Fuse 1 takes care of a lot of the less functional tasks that our shop is asked to do. We use it every day whenever we can.”

Aaron Noyes, Prototype Machinist, Hypertherm

Get started now.

Our Fuse 1 and Fuse Sift Service Plans provide seamless delivery, training, support, and annual on-site visits from Formlabs 3D printing experts. Our Formlabs Services team has helped tens of thousands of customers 3D print successfully.

Fuse Sift

The Fuse Sift is a safe, efficient powder recovery system for the Fuse 1. This all-in-one station combines part extraction, powder recovery, storage, and mixing in a single free-standing device.



COMPACT, ENCLOSED SYSTEM

A negative air pressure system keeps powder inside while enabling open access and easy cleanup.



LOW WASTE

Fuse Sift's sieve filters out particles to be remixed with new powder and reused in future prints. With the high part packing densities possible on the Fuse 1, this means you can print with little to no material waste.



AUTOMATIC POWDER MIXING

Fuse Sift will dispense and mix used and new powder automatically so you can reduce waste and control your powder supply.



NONSTOP PRINTING

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



DURABLE PROTOTYPE

by REEKON Tools

Service Bureau	\$512.45
Competitor SLS	\$57.92
Fuse 1	\$31.38
Powder Weight	0.275 kg per part

Tech Specs: Fuse 1

Technology	Selective Laser Sintering (SLS)
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 10W Class 1 Laser Product
Laser Spot Size	200 microns (0.0079 in)
Material Refresh Rate	30% – 50%
Build Chamber	Modular, compatible with 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)
Startup Time	60 minutes
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 or OBJ

70,000,000 Parts Printed With Formlabs Technology