



HIGH-POWER SELECTIVE LASER SINTERING NOW  
WITHIN REACH

formlabs 

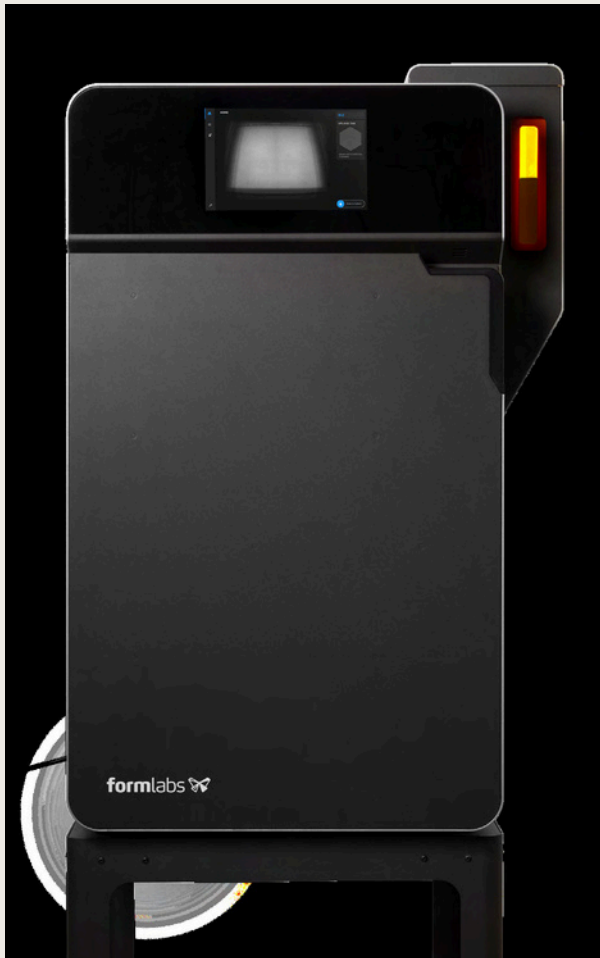
# THE SLS ECOSYSTEM FUSE 1+ 30W

FUSE

1+

30W

Maximum throughput with minimal waste:  
The Fuse 1+ 30W is a compact SLS 3D printer that can handle even industrial-grade production.



#### SAME-DAY PRODUCTION

Bring record-fast 3D printing to your business and deliver high-precision parts within a day, thanks to a powerful 30-watt laser

#### SLS 3D PRINTING MADE EASY

The straightforward hardware and software have been designed to ensure a smooth start and offer you maximum efficiency at every step.

#### INDUSTRY-GRADE MATERIALS

Produce durable parts from industrial-grade materials that can withstand heavy use and achieve high performance through fine-tuned settings and printing in an inert gas atmosphere.

#### COMPACT AND SCALABLE

Thanks to its compact footprint and modular ecosystem, the Fuse 1+ 30W is suitable for any environment.

## Materials

Take advantage of high-performance SLS 3D printing with a wide range of industry-standard materials that meet the challenges of functional prototyping and production or print with any powder sinterable at 1064 nm thanks to Open Material Mode.



# Post-processing

Our automated ecosystem redefines SLS post-processing, delivering ready-to-use parts with professional surface quality in as little as 15 minutes.



**FUSE**

**SIFT**

Extract printed parts in just 5 minutes with this complete powder management solution for the Fuse series SLS 3D printers.

## COMPACT, closed system

A vacuum system keeps the powder inside the machine while allowing ergonomic removal of parts from the unsintered powder. With the Sift Glovebox Bundle extension, you can depowder and transport your parts even faster.

## AUTOMATIC POWDER RE-FEEDING

The straightforward hardware and software are designed to ensure a smooth start and provide you with maximum efficiency every step of the way.

## UNINTERRUPTED PRINTING

Reduce downtime by interchanging modular build chambers and powder cartridges between the Fuse 1+ 30W and the Fuse Sift, creating an uninterrupted, cyclical workflow.

**FUSE**

**BLAST**

Redefine SLS post-processing with a fully automated solution for cleaning and polishing SLS parts in minutes.

## AUTOMATIC CLEANING IN 10 MINUTES

With pre-programmed cleaning routines, you can process an entire build chamber in just 10 minutes, while the Fuse Sift reduces working time by 80% thanks to abrasive filtration.

## READY-TO-SELL PARTS

The ioniser prevents the redeposition of dust and abrasive on your printed parts to ensure noticeably clean parts. With the Polishing System extension, you can achieve a smooth, semi-gloss and abrasion-resistant surface that is ready for colouring.

## LONGER-LASTING BLAST MEDIA

Minimise your overheads with a passive filter system that reduces powder saturation of the blast media, extending its service life by four to eight times.



# From design to finished part

An innovative ecosystem for an efficient and intuitive work process



01

## PREFORM

Efficient packing for optimal print part density

Use our free print preparation software PreForm to import STL, OBJ, 3MF files or models directly from a variety of CAD programs, determine expected print times, and align and arrange models for optimized pack density and reduced print time with minimal waste.



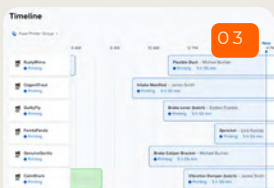
02

## FUSE 1+ 30W

6–24 hours

Faster and reliable printing

Set up your Printer easily and print thanks to a 30W laser in Record speed. Create prototypes within one day and produce in under 24-hour small series durable parts for the End use.



03

## DASHBOARD

Remote monitoring for worry-free work

Maintain control over your production, even with multiple locations and devices. Check printer availability and materials, monitor prints, and receive notifications in the cloud-based dashboard, helping you minimize idle time and maximize throughput.



04

## FUSE SIFT

5–10 minutes

Practical, compact powder management

Our comprehensive powder management station combines parts removal, powder reclaim, storage, and mixing in a single unit. The Fuse Sift automatically dispenses and mixes used and new powder, allowing you to reduce waste and control your powder inventory.



05

## FUSE BLAST

10–60 minutes

Fully automatic cleaning and polishing

The Fuse Blast is an advanced, automated solution for finishing SLS parts that removes powder in the shortest possible time and reliably delivers professional parts with a noticeably clean surface. Achieve a smooth, semi-gloss surface finish, ready for coloring, with the Fuse Blast Polishing System extension.

## Technische Daten

FUSE 1+ 30W

Technologie	Selektives Lasersintern (SLS)   Laserprodukt der Klasse 1
Fertigungsvolumen	165 x 165 x 300 mm
Schichtdicke	110 Mikrometer
Lasertyp	Ytterbium-Faser 30 W
Laserspotgröße	247 Mikrometer
Materialneuzuführungsrate	20–50 %
Konstruktionskammer	Modular, mit Fuse 1+ 30W, Fuse 1 und Fuse Sift kompatibel
Stützstrukturen	Keine Stützstrukturen erforderlich
Druckerabmessungen (B x T x H)	64,5 x 68,5 x 107 cm (mit Ständer 165,5 cm)
Gewicht	114 kg (ohne Konstruktionskammer oder Pulver)
Energiebedarf	EU: 230 V Wechselstrom, 7,5 A (eigener Stromkreis) US: 120 V Wechselstrom, 15 A (eigener Stromkreis)
Garantie und Service	Einhjährige Garantie inklusive. Erweiterte Garantie, Standard-Serviceplan und Premium-Serviceplan verfügbar.
Softwarekompatibilität	Ab Windows 7 // Ab macOS X 10.6.8
Dateiformat	STL-, OBJ- oder 3MF-Dateien

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