Form 3L

Compact Enough for the Office,
Robust Enough for the Factory Floor

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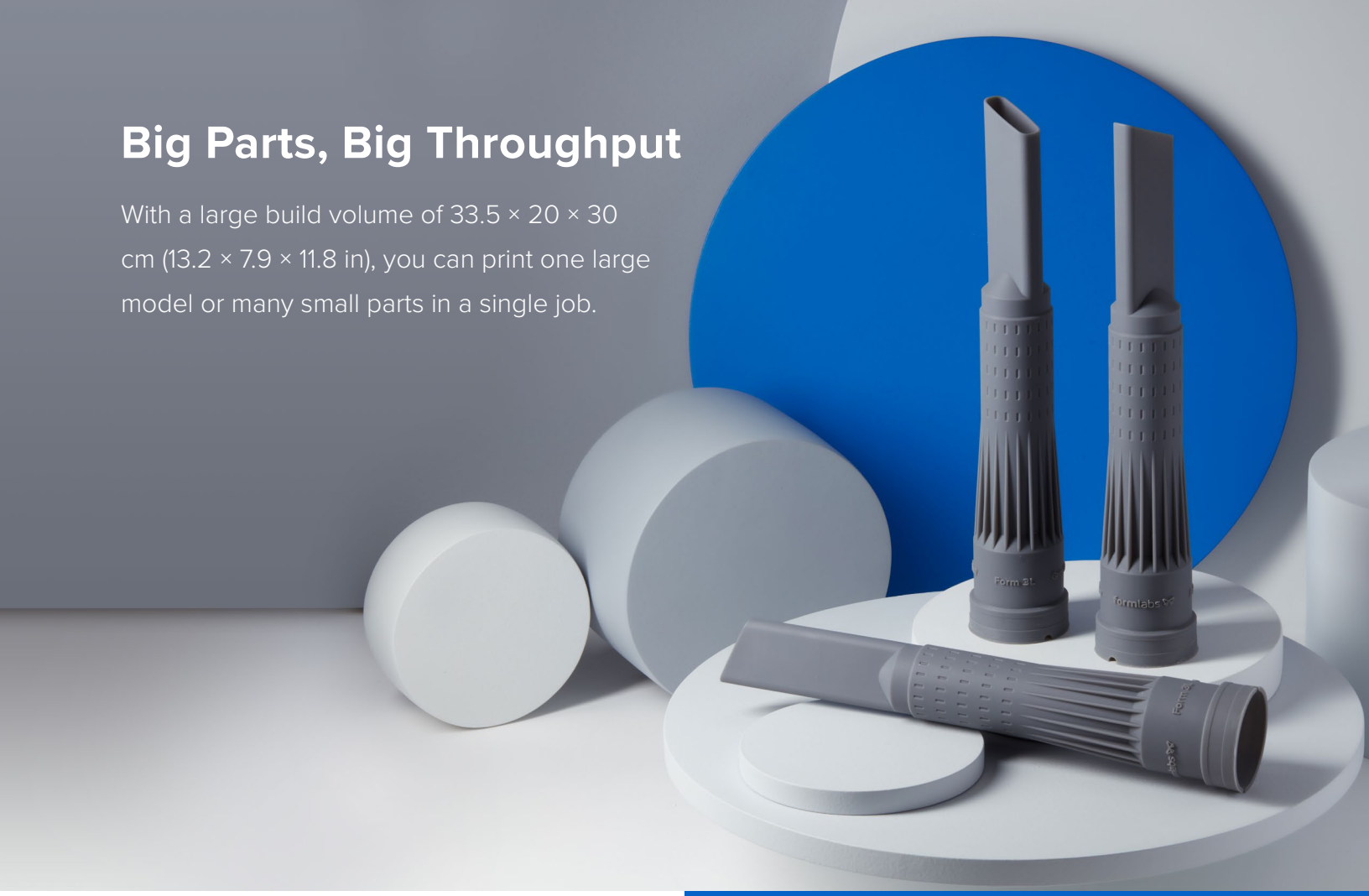
formlabs

Big Parts, Big Throughput

With a large build volume of 33.5 × 20 × 30 cm (13.2 × 7.9 × 11.8 in), you can print one large model or many small parts in a single job.



Stop outsourcing large-scale prints.

Work faster with a large-format 3D printer that's versatile enough to bring large scale fabrication in-house.

Life-sized prints for larger than life ideas.

The Form 3L is large enough to print human-scale models, like a prototype of a helmet that's ready to try on.

Perfectionism that scales.

Two precision Light Processing Units (LPU) inside the printer achieve consistent accuracy and detail across the entire build platform.

Printing Properties

TECHNOLOGY	Low Force Stereolithography (LFS)™ 3D printing
BUILD VOLUME (W X D X H)	33.5 × 20 × 30 cm 13.2 × 7.9 × 11.8 in
LAYER THICKNESS	25 - 300 microns .001 - .012 in
XY RESOLUTION	25 microns (0.001 in)
OPTICS ENGINE	Two 250 mW lasers 85 micron (0.0033 in) laser spot
SUPPORTS	Auto-Generated, Easy Removal

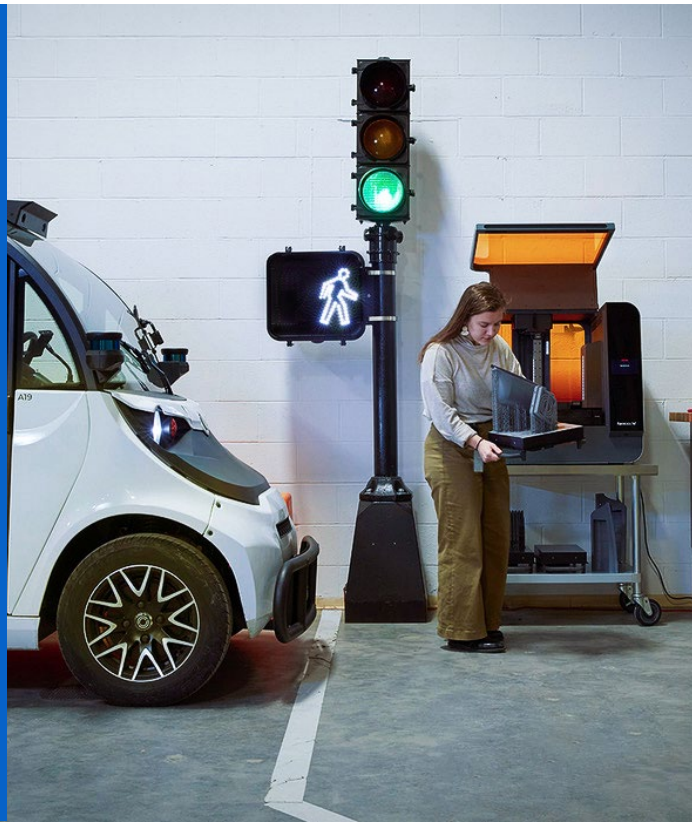
What Our Customers Say

"We have reduced our costs on full-size prototypes from $425 a print to $70 a print. With that savings, Form 3L would pay for itself in only three months."

Matt Tetzl
R&D Technician at Black Diamond

"When we've outsourced large scale enclosures, you could still see all of the layer lines. I wasn't able to see them on the Form 3L prints. Being able to quickly iterate on our cosmetic covers to add a level of polish to our R&D efforts is really helpful."

Louise Katzovitz
Mechanical Engineer at Optimus Ride



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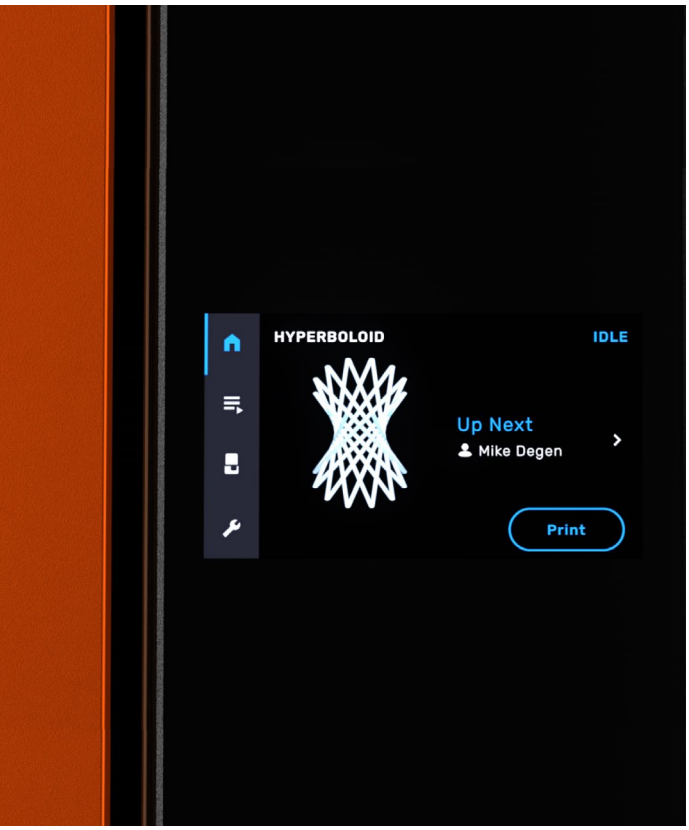
70,000,000 Parts Printed With Formlabs Technology



Intuitive and Efficient

No specialized technicians required. The Form 3L offers automatic resin dispensing, simple print preparation software, and a thoughtfully designed interface.

HIGH-RESOLUTION TOUCHSCREEN INTERFACE

A 5.5” interactive full-color display minimizes error and eliminates the need for constant monitoring.

AUTOMATED PRINT SETUP

Tested over millions of prints, our free print preparation software, PreForm, automatically suggests optimal orientation, supports, and layout, with the ability to manually refine as needed.

CONTINUOUSLY EVOLVING

We believe the best products grow better over time, and we’re committed to continually evolving our hardware through software improvements.

Print Around the Clock

Whether you’re packing the build volume for batch production or printing bulky parts, the Form 3L maintains ideal print conditions for nonstop throughput, with minimal supervision.

CLOUD MONITORING

Remotely monitor and manage your fleet of printers with the online Dashboard.

FAST-PRINTING MATERIAL

Draft Resin balances detail and speed to save time on bulky prototypes and enable quick iteration.

IN-FIELD REPAIRS

The Light Processing Units, rollers, optics window, and other components can be replaced in-house to ensure 24/7 uptime.

Incredible Part Quality

Stop sacrificing on quality for large-format prints. The Form 3L provides the smooth surface finish and fine detail that stereolithography 3D printing is known for.

SMOOTH SURFACE FINISH

Models printed on the Form 3L resemble polished injection-molded for realistic looks-like prototyping and consumer-ready end-use part production.

CONSISTENT PRECISION

A system of lasers and mirrors ensures uniform print quality, for an XY resolution of 25 microns across the entire build platform.

HIGH TRANSLUCENCY

With precise layer registration and smooth surface finish, translucent materials print clearer than ever, right off the printer.

Hassle-Free Materials Management

Choose from a wide range of advanced materials, developed specifically for Formlabs printers by in-house materials scientists. With simplified material switching and automatic resin dispensing, the Form 3L allows you to walk away and focus on other work once your print job starts.

MANY APPLICATIONS, ONE PRINTER

Print in over 15 functional resins to support a wide range of workflows on a single platform.

SWITCH MATERIALS IN MINUTES

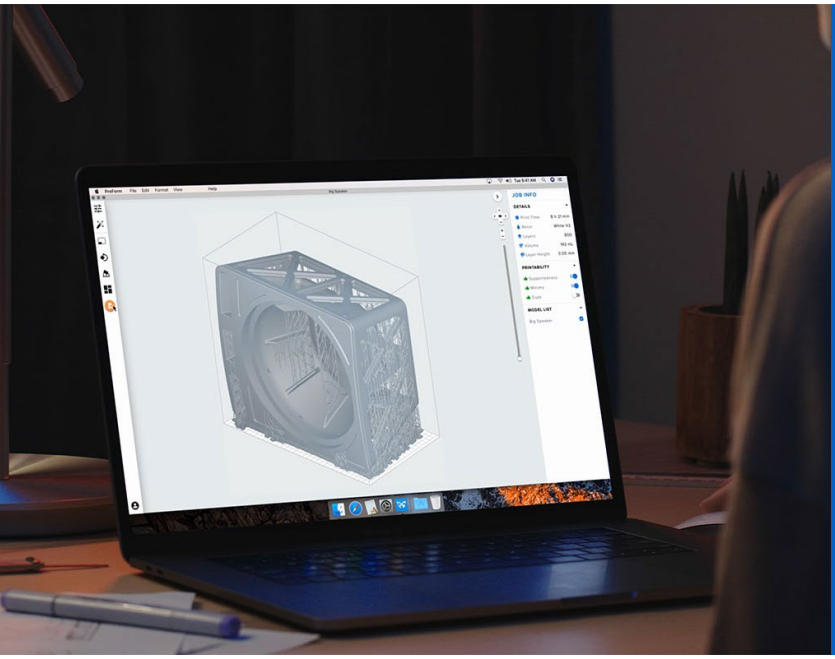
Avoid the hassle and mess of purging materials with our swappable cartridge system, cross-compatible with other Formlabs SLA printers.

AUTOMATIC RESIN DISPENSING:

Our automated resin system dispenses resin as parts print. The Form 3L holds two cartridges of resin to avoid mid-print interruptions.

Part of the Formlabs Ecosystem

Formlabs is known for designing end-to-end additive workflows you'll be excited to use. The Form 3L brings the Formlabs experience to large format 3D printing.



INDUSTRY-LEADING SOFTWARE

Tested over millions of prints, PreForm automatically suggests optimal orientation, supports, and layout to save time during print setup

FORMLABS RESINS

Formlabs offers a wide variety of different 3D printing resins, ranging from standard prototyping materials to engineering materials with various material properties. The Form 3L uses the same resin cartridges as the Form 2 and Form 3, but is designed to hold two cartridges at once to account for the larger print volume.

Compare Formlabs SLA 3D Printers

	FORM 3	FORM 3L	FORM 3BL
Build Volume (W x D x H)	14.5 × 14.5 × 18.5 cm 5.7 × 5.7 × 7.3 in	33.5 × 20 × 30 cm 13.2 × 7.9 × 11.8 in	33.5 × 20 × 30 cm 13.2 × 7.9 × 11.8 in
XY Resolution	25 microns	25 microns	25 microns
Biocompatible Materials	–	–	✓
Laser Power	One 250 mW lasers	Two 250 mW lasers	Two 250 mW lasers
Weight	17.5 kg (38.5 lbs)	54 kg (120 lb)	54 kg (120 lb)
Printer Dimensions (W × D × H)	40.5 × 37.5 × 53 cm 15.9 × 14.8 × 20.9 in	77 × 52 × 74 cm 30.3 × 20.5 × 29.1 in	77 × 52 × 74 cm 30.3 × 20.5 × 29.1 in

Form 3L Sample Part

This vacuum nozzle was printed straight up and down, with no supports, directly on the build platform, and rinsed in isopropyl alcohol (IPA). The Form 3L can print up to 20 nozzles in a single build.

Request a Grey Vacuum Nozzle sample today and a Formlabs representative will get in touch with you.

- Smooth, matte surface finish
- Batch production of medium-sized parts
- High detail

Request a Form 3L Sample Part at
formlabs.com/request-sample-part

The Form 3L Basic Package

Each Form 3L large format Low Force Stereolithography (LFS)™ 3D printer includes the essential tools required to start printing.

INCLUDES

1 Form 3L 3D Printer

1 Resin Tank

1 Build Platform

1 Finish Kit (Rinse Bucket and Cleaning Tools)

PreForm Software

Support When You Need It

Get help when you need it from a team of 3D printing experts. Premium support is available for one, two, or three years, designed to meet the needs of your business and bring you extra peace of mind.

INCLUDES

Priority Access to Pro Service Engineers

A direct line to a Pro Service Engineer and prioritized email support from our dedicated staff.

Customized Training

A training session over video with a Pro Service Engineer, customized to you.

Hot Swaps for Hardware Replacements

Ensure constant uptime: Formlabs will ship you a replacement printer to keep you printing if your printer needs to be repaired or replaced.

Warranty for the Duration of the Plan

The Pro Service Plan extends the one-year warranty included with your printer to the full duration of the chosen plan.

Post-Processing, Simplified

Rinse your part and remove supports with the Form 3L Finish Kit. For an automated finishing solution, use Form Wash and Form Cure for smaller parts, or use our large scale rinse and cure stations, Form Wash L and Form Cure L, coming late Q2 2021. Contact our team for post-processing solutions available now.

Accessories

FORM 3L BUILD PLATFORM

Spare build platforms speed up your workflow and allow for nonstop printing, for example, starting a new print while post-processing your previous part. The Form 3L build platform holds full-size prints and has two side handles to easily transport your printed part.

FORM 3L RESIN TANK

Low Force Stereolithography (LFS)™ 3D printing uses linear illumination and a flexible film tank to turn liquid resin into flawless parts. A key component of the LFS process, the strong dual-layer film at the bottom of the Form 3L Resin Tank allows for a dynamic and precise print process, scaled up for large format printing. Each resin tank includes a mixer and is designed to block extraneous UV light and allow for easy stacking.

Formlabs recommend purchasing one tank for each material you are planning to use, understanding that unused resin can be stored in the tank in between use. Tanks wear over time and are considered consumables. Tank lifetime depends on which resin is being used.