### INDUSTRIAL PARTS AT BLAZING SPEED



LEARN HOW YOU CAN POWER YOUR PRODUCTIVITY, AND IMPROVE PART QUALITY, WORKFLOWS, AND TIME EFFICIENCY, BY UPGRADING FROM FORM 3L TO FORM 4L. formlabs 😿

# FORM 4L VS. FORM 3L

### Improvement

### Form 4L

### Form 3L

**2-4x faster print speeds** across all materials for most large prints in under six hours for faster iterations and higher throughput.



4 h 12 m

22 h 52 m



4 h 12 m

**Build volume** 35.3 x 19.6 x 35 cm 13.9 x 7.7 x 13.8 in 24.2 L 22 h 52 m

**Build volume** 33.5 × 20 × 30 cm 13.2 x 7.9 x 11.8 in 21.4 L



White Resin V5 (left, for Form 4L) is brighter and crisper in color

than **White Resin V4** (right, for Form 3L).



Clear Resin V5 (left, for Form 4L) vs

Clear Resin V4 (right, for Form 3L).



**Grey Resin V5** (left, for Form 4L) is darker and richer in color than **Grey Resin V4** (right, for Form 3L).

It is also tougher, with a 30% higher impact strength, and prints 4x faster.

"Form 4L allows us to print large parts fast. For example, we use the Form 4L to print setup parts for our weld cell in just hours instead of overnight."

> Matthias Schulz, Seat Division Prototyping Manager, Brose

### **13% larger build volume** and **6% larger maximum part length** for

larger parts and increased throughput.

## **Unmatched reliability.** Large format 3D printing you can depend on.

"We've pushed Form 4BL to its limits, and it hasn't failed a single print. Its reliability under pressure has been outstanding."

Brian Albers, 3D Printing Engineer, St. Louis Children's Hospital

**Six new resins** provide higher performance, richer color, and crisper features – all at a fraction of the price of the Form 3L equivalents.

### **Surface finish that rivals injection molding** for improved aesthetics and presentation-ready parts.



Fast Model Resin, Formlabs' fastest printing resin, was designed to print on Form 4 Series printers.

### Improvement

### Sharpest details to produce parts with the finest and most intricate features, uniform finishes. and **no seamline** for less time spent finishing parts.

Form 4L

46 µm with pre-tuned antialiasing for subpixel resolution



Masked stereolithography (MSLA) prints have fine finishes with no seamline, like this ventilator enclosure printed in Grey Resin V5.

### Form 4L Tank \$249

Formlabs material.



85 µm laser spot size, 25 µm XY resolution



Printing with two lasers on Form 3L causes a small seamline in parts. The seamline runs lengthwise from left-toright through this ventilator enclosure printed in Grey Resin.

### Form 3L Tank \$299

250-800 hours of printing and/or 10-35 weeks exposed to resin, depending on the material.

Approximately 70 prints using Grey Resin V4 and average print time (11 hours) or approximately 20 prints using Tough 2000 Resin and average print time (11 hours).

### Improved tank lifetime and management to minimize upkeep costs and waste.



### Cartridge redesign for hassle-free, efficient, and fast automatic resin dispensing.



### 5-10x faster tank filling

- 63% less waste
- 30% less shelf space
- Compatible with Resin Pumping System

### Access images and timelapses online to remotely monitor your prints.



Integrated 5-megapixel camera, which can be disabled, covered, or removed

### **Post-Processing** Improvements



- 1.5x more agitation
- Adjustable forks for Build Platforms, configurable at various heights and widths
- · Compatible with build platforms for both Form 3 Series printers and Form 4 Series printers

75,000+ layers with any

For example: approximately 190 prints using an average height model (39 mm tall), any resin, and 100 µm layer height.

### Form 3L

Additional Specs	Form 4L	Form 3L
Technology	MASKED STEREOLITHOGRAPHY (MSLA)	STEREOLITHOGRAPHY (SLA)
Key Components of the Print Engine	<ul> <li>LOW FORCE DISPLAY™ (LFD)</li> <li>Backlight Unit</li> <li>Light Processing Unit 4L (LPU 4L)</li> <li>Release Texture</li> <li>Flexible Film Resin Tank</li> <li>Intelligent Control Systems</li> <li>High-Speed Automatic Resin Handling</li> </ul>	LOW FORCE STEREOLITHOGRAPHY™ (LFS) • Laser • Light Processing Unit (LPU) • Flexible Film Resin Tank • Intelligent Control Systems • Automatic Resin Handling
Typical Dimensional Tolerances	±0.15% XY dimensional tolerances so assemblies always fit	Not measured
<b>Average Print Speed</b> 100 µm layer height	Average: 24 mm/h across all materials Range: 20-35 mm/h depending on the material	Average: 8 mm/h across all materials Range: 1-14 mm/h depending on the material
Maximum Print Speed	80 mm/hr   3.1 in/hr	23 mm/hr   0.9 in/hr
Printer Control	<ul> <li>7" touchscreen</li> <li>Languages: English, German, French, Spanish, Italian, Japanese, Simplified Chinese</li> </ul>	<ul><li>5.5" touchscreen</li><li>Languages: English</li></ul>
Printer Weight	58.5 kg   129 lb	54.4 kg   120 lb
Printer Dimensions	66.4 x 52.8 x 79.4 cm 26.1 x 20.8 x 31.3 in	77 × 52 × 74 cm 30.3 × 20.5 × 29.1 in



Contact: Zach Carr Mobile: (312) 982.4268 Email: zcarr@m5d.com

M5D

m5d.com