



See why the Formlabs Form 4B is the leading 3D printing solution for dental labs, practices, and orthodontics.

formlabs 😿 | dental

A SIDE-BY-SIDE COMPARISON

# Formlabs Form 4B vs. SprintRay Pro 2

#### Formlabs Form 4B

Complete Cost\*



# \$7,899

**MSLA** 

The \$6,299 starting price includes all the essential tools required to start printing, software, plus one year of Dental Service Plan. The Form 4B Complete Package for \$7,899 adds automated post-processing tools for a turnkey solution. Buy from Formlabs via <u>sales</u> or the <u>online store</u>, or purchase through one of our <u>distribution partners</u>.

Print Technology

#### Print Speed

# 11 models in 9 minutes

Learn More About LFD →

surface finish and unmatched accuracy.

Low Force Display<sup>™</sup> (LFD)

A new generation of stereolithography (SLA) 3D

printing where reduced peel forces lead to incredible

3D print 11 clear aligner models in 9 minutes achieving a throughput of 49 seconds per model thanks to the blazing fast print speed of up to 100 mm/h.

<u>Read this article</u> for a full list of print speed by indication.

Productivity

#### 27% larger build surface, higher productivity

Print up to 11 clear aligner models or 8 splints in one build thanks to the 27% larger 20 x 12.5 x 21 cm build volume.



# **SprintRay Pro 2 Series**



# \$17,918

SprintRay Pro 2 printers start at \$9,995 for the printer and essentials. Including postprocessing solutions and service plan, the complete package is nearly \$18,000. The \$1,499 add-on Arch Kit, required for top print speed and producing restorations, is sold separately.

# MSLA Optical Panel<sup>™</sup> Technology

A new generation of stereolithography (SLA) 3D printing.

### 9 models in 13 minutes

Slower print speed and fewer parts per build for each indication due to the smaller build platforms. Theoretical max print speed of 50 mm/h using the standard kit build platform and 100 mm/h using the tiny arch kit build platform (requires an additional purchase).

# Smaller build surface, smaller batches, more manual labor

The SprintRay Pro 2's 18.8 x 10.5 x 20 cm build volume can only fit 6 full arch dental models or splints, resulting in lower throughput and requiring more printer interactions.



Supported Dental Applications & Materials

#### Reliability

### Formlabs Form 4B

#### 15+ validated indications

A wide range of indications on a single printer, validated, tested, and directly supported by Formlabs.

Explore Indications  $\rightarrow$ 

### Open System

Open material mode available enabling third-party resins.

Learn More About Formlabs Open Platform ightarrow

### 99% print success rate

Form 4B was measured to have a 98.7% print success rate by an independent global leader in product testing.

A new Release Texture and a durable Flexible Film Resin Tank minimize peel forces during printing. Plus, the built-in Resin Level Sensor and Z-Axis Force Sensor ensure consistency and performance.

In the event of an issue, error messages display QR codes that lead to support articles to get you back up and running as quickly as possible.

# Accurate, repeatable prints with a smooth surface finish

The 50 µm XY resolution with pre-tuned antialiasing for subpixel resolution results in superior fine and sharp feature performance, and helps deliver an unrivaled accuracy of final parts.

On average, Form 4B and Precision Model Resin produce dental models with:

- $\cdot$  99.7% of surfaces within 100  $\mu m$  of CAD model\*\*
- $\cdot$  95% of surfaces within 50  $\mu m$  of CAD model\*\*
- + 69% of surfaces within 25  $\mu m$  of CAD model\*\*

\*\* Using Precision Model Resin and 50 µm layer height. Tested using a full arch restorative model with dies. Four models were printed per print job on three different printers and postprocessed according to the recommended settings.

Resin Dispensing

**Restorative Model** 

Surface Accuracy

# Automatic Resin Handling

- **No Mess:** Automatic resin dispensing eliminates the need for manual intervention, resulting in reliable prints and a clean workspace.
- Streamlined Workflow: Resin level sensing and automatic resin dispensing ensure optimal resin levels are maintained with 3x fewer interactions.
- **Reliable:** Consistent, precise, and automated resin dispensing for reliable completion of prints.

# SprintRay Pro 2 Series

# 15+ indications

A wide range of indications. Some indications require different resin tank and build platform kits.

# **Closed System**

Open material mode unavailable, only third-party materials certified by SprintRay (currently zero materials for the SprintRay Pro 2).

# N/A

There is no data on reliability.

# N/A

There is no data on surface accuracy. XY resolution is 35  $\mu m.$ 

# Manual

- Messy and Inconvenient: Manual resin dispensing can be messy, with a higher risk of spills.
- Additional Workflow Steps: Requires manual monitoring and adjustment of resin levels, adding time and effort to the printing process.
- Inconsistent Reliability: Greater chance of human error with manual resin pouring contributes to frustrating print failures.

#### Part Removal

# Formlabs Form 4B

### Quick, easy, and tool-free with Flex Build Platform

Prevents part breakage and potential injuries while removing parts.

Automated resin identification

when a cartridge is inserted

**Resin Identification** 

Post-Processing

Resin Mixing

Monitoring

Resin\*

Resin Tanks\*

Service\*

Light Processing Unit\*

### Automated

Automated, with debris detection

Integrated camera for remote monitoring and traceability

**\$79/L** Fast Model Resin for dental models costs \$79/L in cartridges, \$65/L in 5L containers, and prices can go as low as \$35 for bulk orders. Resins for all other applications are also comparable or more cost-effective.

# \$99

Formlabs resin tanks cost 68% less and last at least as long as SprintRay Pro 2's tanks.

\$990

Service and warranty cost 48% less in the first year and 57% less over 3 years, and include superior benefits, such as personalized onboarding, phone and email support, and hot swap expedited replacement in the event your printer needs service.

\$535 Formlabs' LPU lasts more than 5x longer and costs

less to replace. Lifetime details: 600k - 1.9M layers, depending on

material and layer height.\*\*

\*\*For example, approximately 5,000 prints using diagnostic models (22 mm tall), Grey Resin V5, and 100 μm layer height

\*Price excluding VAT.

### **SprintRay Pro 2 Series**

# Manual one-at-a-time part removal with tools

Risk of part breakage or injury while removing parts.

Manual, requires an additional step for the user: scanning the bottle before printing

#### Automated

Manual mixing is required periodically, no debris detection

No camera

# \$149/KG

SprintRay's Dental Model resin costs \$149/kg (around 0.8-0.9L), with no discount available for higher volumes.

**\$309** Expensive resin tanks.

\$1,925

Very expensive service plan with fewer benefits, a tiering structure for service parts, and no hot swaps if your printer needs service.

\$695 Rated for one to two years of printing.

