

Fabricating Clear Aligners in a Private Orthodontic Practice

ROI on a Form 3B in Just Three Clear Aligner Cases

Company

SmileMaker Orthodontics, Nashville, TN, USA

Specialty

Private Practice Orthodontics

Applications of 3D Printing

- Clear aligner models
- Retainer models





Dr. Jay Burton, DMD, MBA

SmileMaker Orthodontics is a private practice near Nashville, Tennessee managed by Dr. Jay Burton, DMD, MBA, a board-certified orthodontist. They have a small in-house lab with four Formlabs 3D printers.

The Challenge

A few years ago, Dr. Burton was increasingly frustrated by working with outside aligner manufacturers, which were expensive, had long turnaround times, and weren't up to his quality standards. He was determined to deliver better care than that to his patients.

When he researched ways to bring clear aligner production in-house, he learned about 3D printers, but the only options were prohibitively expensive for the average orthodontic practice.

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The Solution

That changed in 2016 when Dr. Burton first heard about the Form 2. The affordable price point, ease of use, and impressive accuracy enticed him to take a chance on in-house 3D printing.

That chance has paid off. Several years later, Dr. Burton has four Formlabs printers, including a new Form 3B. He uses them, along with Planmeca OrthoStudio and uLab, to fabricate clear aligners onsite for most of his aligner cases.

With the October 2020 addition of fast-printing Draft Resin to his arsenal of Formlabs products, Dr. Burton can now deliver even same-day aligners and retainers to patients.

Results

With in-house 3D printing, Dr. Burton has much more control over the clear aligner treatments he offers his patients. He can deliver high-quality appliances on an ambitious schedule — even same-day — while saving costs.

Dr. Burton's Form 3B paid for itself in just three clear aligner cases.

	Time from scan to treatment start	Cost for a comprehensive case*
Outsourced aligners	As much as 8 weeks	\$1,500-2,000 USD
In-house aligners	As little as 1 hour	\$300-400 USD
Savings per case	8 weeks	\$1,100-1,700 USD

^{*} Assuming a 10-month treatment. In-house costs include resin, thermoforming plastic, and labor.

Why Formlabs Dental?

Reliability and redundancy

"If you've only got one expensive printer, and it goes down, you're in trouble. With Formlabs, you can get multiple printers for a similar price, so even if something does go wrong, I can still meet my production goals."

Easy to delegate

"90% of the aligner work in my office can be delegated. ... It really is 'set it and forget it.'"

Throughput, not just speed

"Other printers with smaller build plates don't seem to fit as well from a workflow perspective in a busy orthodontic practice. Few orthodontists want an assistant to be leaving the clinic every hour to post-process prints."