



Driving efficiency with multi- material **3D printing**



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For dental labs to realize the value of digital workflows and 3D printing, the next technology to adopt is multi-material 3D printing. A dental 3D printer with multi-material, mixed tray capabilities is like having three printers in one. This versatility opens the door to increased efficiency and optimized application-production automation.

J5 DentaJet, the latest multi-material PolyJet 3D printer from Stratasys was developed specifically for dental applications. J5 DentaJet can deposit up to five different biocompatible resins at once, including a support material, which enables medical professionals to 3D print mixed trays of high-precision dental parts in one job, including rigid implant models, soft gingiva masks, and functional surgical guides. With each denture or implant case requiring several different components and materials, the J5 DentaJet is ultimately designed to eliminate the need for multiple 3D printers and print jobs.





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3D printers help us maintain one of the lowest average remake (rates) in the industry

Cody Iverson
company president

Crown & Bridge

Unmatched quality and accuracy

Producing the most precise models in high-resolution materials in a fraction of the time led Iverson Dental Laboratories to embrace Stratasys 3D printers. Iverson Labs cut appliance turnaround time and improved accuracy with precise, high-resolution printing. Precise appliances mean little-to-no adjustment is needed, so dentists can seat crowns and bridges in less than five minutes and minimize chair time. Less chair time means dentists can see up to five more patients per day on average.

Implantology

It's about more than forming a better smile.
It's about forming a better business.

Simplify the complexity of implantology by printing the model, surgical guide and soft gingival mask in different materials simultaneously on the same tray. Multi-material 3D printing is ideal for creating implant models that mimic gum textures.

Like many dental manufacturers, Vulcan Custom Dental is challenged with balancing workloads, optimizing production and staying competitive.

By 3D printing substitutes for gypsum models, prosthetic prototypes and surgical guides, Vulcan can now deliver same-day results. Its Stratasys printers reduced model production time 75% compared to competitor 3D printers.



The Stratasys 3D printer offers substantial time savings. It only requires a few minutes of setup time, and we can print many high-precision jobs a day”

Boris Simmonds
director of technology development at Vulcan

Orthodontics

Formfitting solutions to get teeth, and your bottom line, aligned

Go straight from intraoral scan to in-house production with a seamless digital workflow. Cut days off delivery times and produce more accurate, comfortable, and effective orthodontic appliances. Simplify the creation and service quality with Separator Digital Material, which coats models, making the removal of wax and acrylic residues easy. Expand your lab with new services by offering 3D printed indirect bonding trays or producing clear aligners from 3D printed arches.

“What we have needed is a faster printer, one that could produce on demand and didn’t require high levels of expertise to operate. We were anxiously awaiting the opportunity to get our hands on a Stratasys PolyJet printer so we could meet customer demand,” said DynaFlex CEO Darren Buddemeyer, because the printer is optimized for accurate, high output of clear aligners.



Removables

The speed, precision, and customization to outperform traditional dentistry

Streamline the manufacturing process of cast chrome partials with automation that cuts down on labor. Predictable and repeatable results reduce patient visits and resets with precise frameworks, denture and partial try-ins produced in less time in smooth, biocompatible materials.

Adapting to a shortage of skilled labor, Biogenic Dental Corporation adopted 3D printing for cast partial frame patterns to replace traditional hand wax-ups. By switching to Stratasys printers, they realized a 50% increase in output in half the time, allowing Biogenic to redeploy workers to other duties.

Digitize the entire workflow by 3D printing multiple parts in multiple materials for different applications at the same time. Increase your productivity by eliminating many production steps and create unrivaled dental models and appliances leading to faster turnaround times and fewer remakes. The added capabilities of Stratasys dental solutions help labs expand into new areas of business.

Solutions	Value
J5 DentaJet™	• Multiple material printing for a wide variety of parts on the same build tray, maximizing efficiency and throughput for mid-size labs • High-volume unattended operation requires less manual labor, post-processing and handling. • Applications: Crown / bridge / implant models, surgical guides, RPD frames, try-ins, IDB Trays, custom trays, gingiva mask • Compact, small footprint, large print tray, ideal for a dental lab environment
The Stratasys J700™ Dental	• Prints up to 400 arches per day • No open vats; all resins in sealed cartridges • Ease of use and setup; qualify for production in a matter of days • Applications: Clear aligner molds
The Stratasys J720™ Dental	• Multi-material dental volume production system for large labs in restorations, orthodontics and removables • Print all dental parts—implant models, surgical guides, gingiva mask and more—in a single print • Applications: Clear aligner molds, crown / bridge / implant models, surgical guides, RPD frames, try-ins, IDB trays, custom trays, gingiva mask

The Stratasys Difference:

Peace of mind for your
ongoing success

For more than 30 years Stratasys has been the forefront of 3D printing. Choose our technology and stay ahead of the game by having access to best-in-class materials, a wide variety of applications, and improved digital workflows. To ensure you are supported at every step of your additive manufacturing journey, Stratasys offers comprehensive service and support by experienced subject matter experts including certified Service Engineers, Application Engineers and a host of online resources for training and trouble shooting

Contact us to learn more about how your lab can drive efficiency with multi-material 3D PolyJet printing.



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