

# Rushing to meet a deadline?

## 3D printing gets the job done in time

### Rapid Shape paves the way for high-speed dental labs

Speed is becoming an increasingly important key to success for dentists and dental laboratories: when patients don't face long waiting times or don't need to come back for a second appointment thanks to quick solutions, dentists can significantly increase patient satisfaction. For dental products such as drilling templates, occlusal splints or crowns and bridges, the innovative production processes of 3D printing offer significant benefits. "But it's not simply a question of speed," says Andreas Schultheiss, the founder and managing director of Rapid Shape, a leading provider of 3D printers for the dental industry. "Precision and validated processes for medical devices are additional important factors of success, especially for dental products."

### Validated drilling template and occlusal splint in about 15 minutes

With the 3D print systems of the D+ series, Rapid Shape offers highly efficient solutions, which set new standards, both in terms of printing speed and high-quality results. Within about 15 minutes after the printing process starts, users can create validated drilling templates or occlusal splints, while models, depending on their design, can be ready for use within 25 minutes.

This combination of speed and precision is the result of the patented Force Feedback 2.0 technology, which is used in the latest generation of Rapid Shape 3D printers. A measuring device monitors the separating forces during the layer-by-layer stacking and delivers data for the movement control in real-time.

### Patented speed control

"The Force Feedback technology ensures that the sensitive separation process progresses particularly gently, while non-critical movements such as mixing or material flow can be accelerated," explains Andreas Schultheiss. As a result, Rapid Shape 3D printers are very fast, also compared to other fast printing systems that use full-surface Digital Light Processing (DLP) technology for light projection.

To be able to offer dental practices and laboratories a solution tailored to their individual production volumes, Rapid Shape presents its latest family of 3D printers in various models. The compact D10+ capsule system, with its application-specific capsules, is ideal for dentists and clinics, while the D20+ cartridge system is most appropriate for the needs of smaller laboratories. There are additional open production systems available in various dimensions that cover the range of quantities required by small and medium-sized laboratories, up to large-scale laboratories. According to Schultheiss, "This ensures that each user gets the individual 3D print solution that generates the desired results in their laboratory or practice in the most economical way."

### Safe and easy use

Apart from production quality and speed, ease of operation and flexibility are additional key considerations of cost efficiency. Accordingly, the Rapid Shape developers have developed user guidance and integrated workflows in close consultation with users themselves to ensure particularly safe and easy operation of the devices and software.

Thanks to the close cooperation with several leading material manufacturers the user has access to a very wide material portfolio. The use of the open Rapid Shape 3D printers and the corresponding materials is in accordance with the Medical Devices Directive. Andreas Schultheiss emphasizes the additional benefits for users: "Depending on their requirements, dental laboratories can optimize the material they use in regard to aesthetics, quality and pricing. Thereby the user is secure that the system is working fine and the necessary certifications are taken into account." To be fully equipped for the continuously growing demand in the dental industry for 3D printers, Rapid Shape works with established distribution partners.



### About Rapid Shape

Rapid Shape is a German company that specializes in the development and manufacture of high-end systems for additive printing. Rapid Shape has positioned itself as one of this industry's leaders through proprietary technology that has set new standards in speed, reliability and precision. Rapid Shape provides solutions for industrial, dental, hearing aid and jewellery markets. Precision, quality and cooperation with sales, material and technology partners distinguishes this company from its competitors. For further information about Rapid Shapes 3D-printer please visit [www.rapidshape.de](http://www.rapidshape.de)

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