

Additive Manufacturing for Dental Devices

Challenge

Optimizing complex fabrication processes while improving efficiency and reducing cost.

Solution

Additive manufacturing simplifies customer-specific geometries. Digital control eliminates hours of manual fabrication and means dental technicians can concentrate on the construction and design details. Using our customer-friendly Dental Cockpit software (Fig. 2), time-intensive manual steps like nesting and supporting the building platform are also automated. Cups, abutments, and partials can be printed on the same building plate maximizing economy. In addition, having the ability to choose between different metal powders such as CoCr and Titanium delivers the freedom to optimize final physical characteristics. Once the print file is generated, the print job – such as a complete variety of bionic tooth shapes (Fig. 3) – can start and finish with no further user intervention. This allows technicians to prioritize their valuable time elsewhere.

Benefit

Additive manufacturing for dental implants and devices using Coherent CREATOR™ simplifies fabrication, increases speed and flexibility, and improves patient care, thanks to increased precision and superior personalized fittings. Furthermore, the additive process takes half the time of traditional manual fabrication.

Application Field

Additive manufacturing of individual dental devices and appliances that requires a minimum of material and supports the most complex geometries.



Figure 1. Coherent CREATOR™ - 3D metal printer

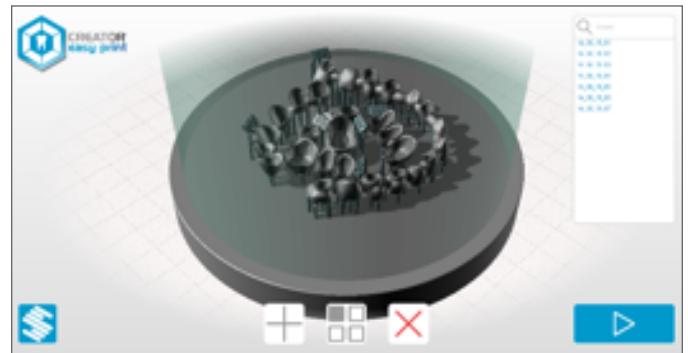


Figure 2. Preparation of the printing process with the Dental Cockpit software

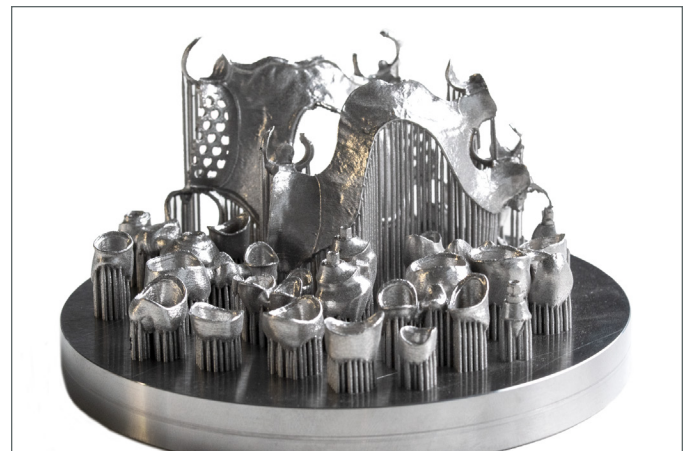


Figure 3. Different appliances can be printed simultaneously on the same plate.

Contact

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