

# DIGITAL DENTAL RESTORATION

## THE CAD/CAM WORKFLOW



**ANALOG IMPRESSION**  
The dentist takes an Alginate impression of the patient's teeth and soft tissues, which a laboratory uses to make a positive cast. The cast model is digitized using a desktop scanner.



**INTRAORAL SCAN**  
Using a hand-held scanner, the dentist takes a digital impression of the patient's teeth and soft tissues.



**PACKAGING & SHIPPING REQUIRED**  
Analog impressions incur the mailing costs for sending it to the lab for casting and digitization.



DIGITAL FILE SHARED WITH LAB

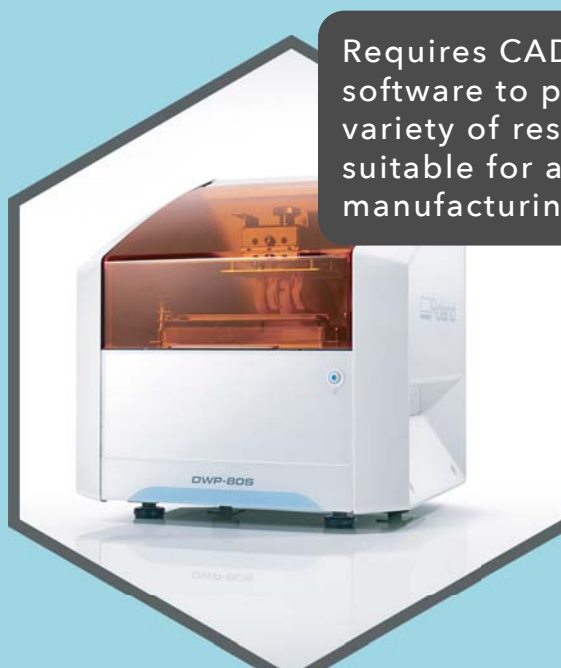
DIGITAL FILE CREATED AT LAB



**CAD SOFTWARE**  
Using the patient's digitized scan, technicians design replacement prosthetics that range from crowns to full dentures. The digitally designed file (e.g. STL file) is then imported to CAM software for the next step of the process.



**CAM SOFTWARE**  
CAM software outputs the CAD design data (STL file) as machine instructions that control the motion and movements of the dental mill or printer to produce a physical prosthetic in the material of your choosing.



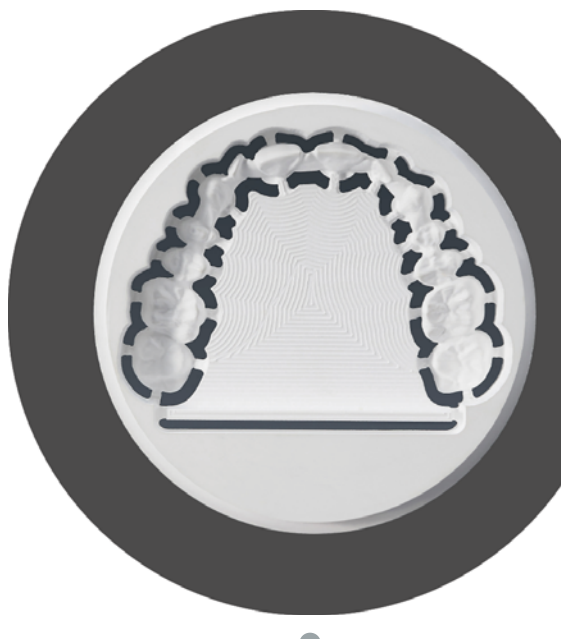
Requires CAD/CAM software to print a variety of restorations, suitable for additive manufacturing.



Requires CAD/CAM software to produce material discs and pin-type blocks in zirconia and other materials.



Requires CAD/CAM software to produce glass ceramic and composite resin pin-type blocks.



**HYBRID CERAMICS**

**GLASS CERAMICS**

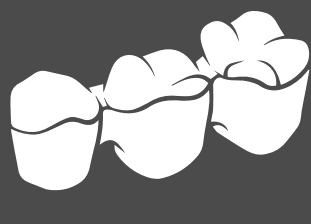


**SINTERING OVEN**



**CRYSTALLIZATION OVEN**

**FINISHING**  
Once the dental lab has finished milling, the prosthetic can be stained, glazed and polished.



**FINISHED PRODUCT**  
Crowns, bridges, custom trays, frameworks and other prosthetics are sent back to the dental office for patient fitting. Depending on the application (particularly with denture production), the workflow moves onto the next production stage and the process begins again until a final product is eventually produced.