DENTAL CAD/CAM 3D PRINTERS

Production of accurate, highly detailed dental prostheses, precision working models, drill guides and orthodontic thermoforming models

Enter the Digital Dentistry Era

ENHANCE QUALITY

Reduce the need for remakes with the digital precision, detail resolution and the design freedom of 3D Systems dental printing solutions. Printing unique feathered edges and crisp grooves that are commonly found on tooth anatomy, with verified accuracy and consistency for dental applications, ensures you can get the perfect fit every time.

ACCELERATE YOUR CYCLE TIMES

Achieve a 50% increase in throughput with no additional labor. From highly flexible bench-top personal printers to high-capacity printers with round-the-clock operation and same-day cycle times, our dental CAD/CAM printers dramatically reduce lead times.

INCREASE MANUFACTURING AGILITY

3D printing provides more flexibility and throughput to develop your business and access the digital dentistry world, while reducing resource dependency. Our dental solutions are designed for use in laboratories, making production methods faster, easier and more effective.

REDUCE COSTS

With uniformly thin walls, users enjoy an average of 20% savings on alloy consumption and 50% savings on framework finishing time with extremely smooth surface finish, adding to the remakes savings. For high volumes, Direct Metal Printing eliminates multiple steps and reduces the unit cost per restoration.

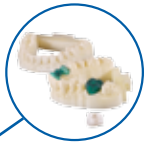
DENTAL APPLICATIONS INCLUDE:

DRILL GUIDES
USP Class VI-capable transparent materials for biocompatible drill guides.

DENTAL WORKING MODELS
Precision, beautiful working models in stone-like materials.

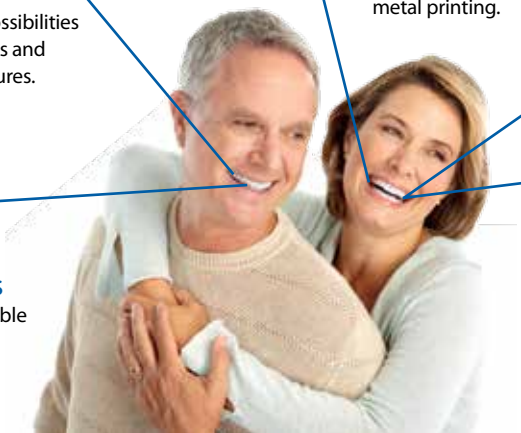
IMPLANT-SUPPORTED STRUCTURES
Unlimited design possibilities for DMP implant bars and implant suprastructures.

CROWNS, BRIDGES, VENEERS
Production of castable and pressable wax-ups, or direct metal printing.



PARTIALS, FRAMES
Production of castable wax-ups or direct metal printing.

THERMOFORMING ORTHODONTIC MODELS
High accuracy and repeatability models for thermoformed aligners.



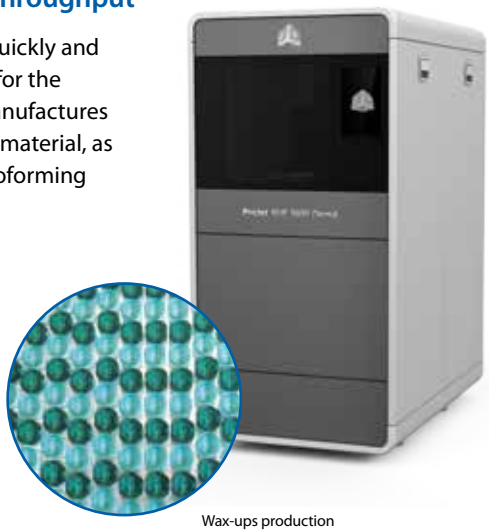
ProJet® MJP 3600 Dental

Exceptional quality, unmatched throughput

The 3D Systems Dental MultiJet Printer quickly and consistently produces accurate wax-ups for the production of prosthetic devices, and manufactures precision working models in a stone-like material, as well as drill guides or orthodontic thermoforming models in durable plastic material.

USP Class VI capable drill guides

Partials and working models printed on the ProJet MJP 3600 Dental



Wax-ups production

HIGH CAPACITY FOR THE BROADEST RANGE OF DENTAL LAB APPLICATIONS

Designed for 24/7 use, laboratories can boast same-day cycle times, reduced lead times and diminished costs. Delivering new levels of productivity, this printer can produce hundreds of units per cycle and up to 24 quad cases in a single build.

EASY POST-PROCESSING

Finishing MJP parts is as easy as melting wax away from even the tightest spaces, preserving the finest details and smooth surface quality. No hand scraping, high-pressure water jets, caustic chemical baths, or special facilities requirements.

CLASS VI CAPABLE MATERIAL FOR BIOCOMPATIBLE APPLICATIONS

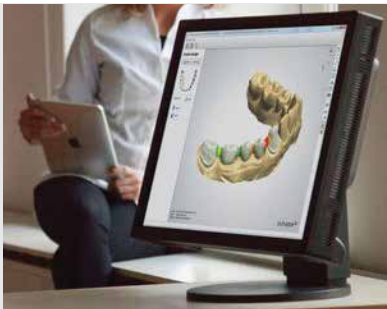
With a biocompatible material that has passed USP Class VI testing, you can produce drill guides, parts for medical devices and more.

LOW TOTAL COST OF OWNERSHIP

Optimize labor costs with MultiJet Printing ease-of-use and automated process—from file to finished part. In addition to limited maintenance requirements, it comes with a 5-year warranty on the industrial-grade print head, designed for long life and high reliability.

Open Solutions

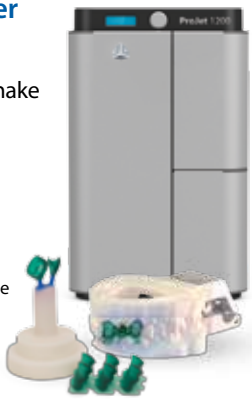
3D Systems' dental printing solutions work with any open STL-compatible intraoral, plaster or impression scanner.



ProJet® 1200 Micro-SLA 3D Printer

Low-cost, professional-grade dental wax-up 3D printer

The ProJet 1200 micro-SLA 3D printer puts the high precision of a professional dental 3D printer right on your lab bench, so you can make accurate wax-ups faster with no 3D printing experience required.



Wax-ups made on the ProJet 1200 are castable and pressable with standard dental lab equipment

FOR EVERY DENTAL LAB BENCH

The ProJet 1200 is so affordable to own and use that every dental CAD/CAM designer can have one on the desktop, so there's no waiting to start a print on a shared printer.

ALL-IN-ONE SOLUTION

With an integrated curing chamber, everything you need is built-in, and replenishing material is as easy as popping in a new VisiJet® FTX cartridge. It is factory calibrated for reliable, accurate and pushbutton operation.

FAST WORKFLOW

Fast print times allow you to keep up with the production of two dental CAD/CAM designers. Print 10 dental wax-ups in less than an hour.

ProJet® & ProX™ SLA Printers

Unrivaled precision and surface quality

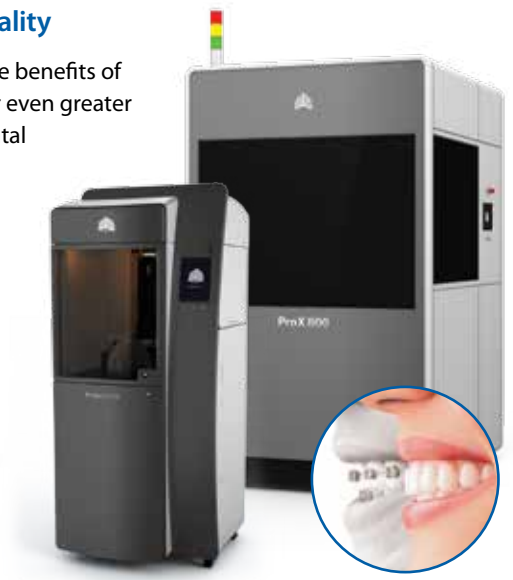
These highly productive printers offer all the benefits of legendary stereolithography, fine-tuned for even greater speed, cost-efficiency and reliability for dental models and drill guides production.

HIGHEST PRODUCTIVITY

Advance your dental model manufacturing workflow with the fastest print technology for large production runs. With swappable material delivery modules, get 24/7 utilization.

ENGINEERED SPECIALTY MATERIALS

Using our advanced SLA materials, you can produce accurate dental models that are ideal for crown and bridge restorations, working models for partial frameworks and orthodontic thermoforming models. With the USP Class VI capable biocompatible material, you can produce drill guides, parts for medical devices and more.



Dental models for thermoformed aligners

Working models produced on an SLA printer

ProX™ DMP 100, 200 & 320

High productivity, exceptional quality

3D Systems' Direct Metal Printing process builds fully dense, chemically pure complex metal parts in hours, providing industry leading quality, fine details, precision and repeatability for dental applications.

Dental frames

Partials, copings and bridges production in Cobalt Chrome (CoCr)

Implant bar and removable suprastructure in titanium alloy

EXCEPTIONAL SURFACE FINISH
Reduced machining or polishing to get final parts.

UNMATCHED ACCURACY
Print the finest features at the tightest tolerances in Direct Metal Printing.

PRODUCTION READY
Offering unmatched precision and consistency, the ProX DMP printers are the proven standard with tens of thousands of in-mouth dentures produced all around the world.

SUPERIOR MECHANICAL PROPERTIES
Produce exceptionally strong dental parts with uniform mechanicals, higher density and chemical purity.

HIGH PERFORMANCE DENTAL ALLOYS
Used by the ProX DMP 100 and 200 printers, the nickel and beryllium free CoCrMo alloy is suitable for biomedical applications, including dental frames, partials, copings and bridges. The ProX DMP 320 selection of high strength LaserForm™ Titanium alloys is ideal for dental implant bars and suprastructures.

Unlimited Design Freedom - Unparalleled Retention

The Direct Metal Printing capability to accurately produce unlimited complexity parts, including tailored surface textures that are not possible by milling, provides the ideal retention structure as an integral part of the implant suprastructure production.

	ProJet 1200	ProJet MJP 3600 Dental	ProJet 6000 MP	ProJet 7000 MP	ProX 800
Technology	Micro-SLA	MultiJet Printing (MJP)	Stereolithography (SLA)		
Build Envelope Capacity (W x D x H)[1]	1.69 x 1.06 x 5.90 in (43 x 27 x 150 mm)	11.75 x 7.2 x 8 in (298 x 183 x 203 mm)	10 x 10 x 10 in (250 x 250 x 250 mm)	15 x 15 x 10 in (380 x 380 x 250 mm)	25.6 x 29.5 x 21.65 in (650 x 750 x 550 mm)
Recommended dental specialty materials	VisiJet® FTX Green (Tough castable plastic) VisiJet FTX Cast (Wax and plastic hybrid)	VisiJet M3 Dentcast (Wax-up castable material) VisiJet M3 PearlStone (Solid stone appearance) VisiJet M3 Stoneplast (USP Class VI capable, translucent or stone finish)	VisiJet SL e-Stone™ (High-contrast color, dental stone) VisiJet SL Clear (USP Class VI capable, crystal-clear appearance, polycarbonate-like)		Accura® e-Stone™ (High-contrast color, dental stone) Accura ClearVue (USP Class VI capable, crystal-clear appearance, polycarbonate-like)
Resolution	56 micron (xy) (effective 585 DPI)	UHD Mode: 750 x 750 x 890 DPI HDX and HDP Modes: 375 x 450 x 790 DPI	4000 DPI (equivalent DPI based on laser spot location resolution of 6.35 µm in 3D Systems testing)		
Layer thickness	30 µm	29 or 32 µm	50-100 µm	50-100 µm	50-100 µm
Typical accuracy	Reference voxel size (XYZ)	±0.001-0.002 inch per inch (0.025-0.05 mm per 25.4 mm) of part dimension			
Main dental applications	Wax-ups	Wax-ups, working and thermoforming models, drill guides	Working and thermoforming models, drill guides		

	ProX DMP 100	ProX DMP 200	ProX DMP 320
Technology	Direct Metal Printing	Direct Metal Printing	Direct Metal Printing
Max. build envelope capacity (W x D x H)[1]	3.94 x 3.94 x 3.94 in (100 x 100 x 100 mm)[2]	5.51 x 5.51 x 4.92 in (140 x 140 x 125 mm)[2]	10.82 x 10.82 x 16.53 in (275 x 275 x 420 mm)[2]
Dental metal alloys with developed print parameters	Cobalt-Chrome CoCr	Cobalt-Chrome CoCr	LaserForm™ Ti Gr. 1 LaserForm™ Ti Gr. 5 LaserForm™ Ti Gr. 23
Layer thickness	Adjustable, min 5 µm - max 100 µm Preset: 30, 40 and 50 µm		Adjustable Preset: 30 and 60 µm
Repeatability	x=20 µm, y=20 µm, z=20 µm		
Min. feature size	x=100 µm, y=100 µm, z=20 µm		100 µm
Min. wall thickness	150 µm	150 µm	150 µm
Typical accuracy	± 0.1-0.2% with ± 50 µm minimum		
Material loading	Manual	Semiautomatic	Manual
Recycling system	Optional external system	Optional external system	Optional external system
Interchangeable build modules	No	No	Yes
Main dental applications	Partials, frames, copings, bridges		Dental implant bars and suprastructures

[1]Maximum part size is dependent on geometry, among other factors.
[2]Including build plate

Complete specifications available at www.3dsystems.com

Warranty/Disclaimer: The performance characteristics of these products may vary according to product application, operating conditions, material combined with, or with end use. 3D Systems makes no warranties of any type, express or implied, including, but not limited to, the warranties of merchantability or fitness for a particular use.

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