

# Stereolithography Printers

Prototypes, tools and production parts with ProJet® and ProX® SLA 3D printers



3D Systems—the inventor of Stereolithography (SLA) and the only SLA manufacturer offering the total solution with integrated hardware, software and materials fine-tuned to achieve renowned SLA parts quality—brings you legendary precision, repeatability and reliability in SLA 3D printers.

# The Original, and Most Accurate, 3D Printing Technology, Fine Tuned for Even Greater Speed and Reliability

We didn't just invent SLA, we are advancing SLA

## UNRIVALED ACCURACY AND PRECISION, FROM MICRO TO MACRO

SLA printers are able to print highly detailed, tiny parts just a few mm in size, all the way up to 1.5 m long parts—all at the same exceptional resolution and accuracy. Even large parts remain highly accurate from end-to-end, with virtually no part shrinkage or warping.

### **PRODUCTION QUALITY**

3D Systems has released 21 different SLA printers over the last 3 decades, each providing significant improvements over the previous version, offering you exceptional part quality. Our customers do not have to compromise speed or feature detail because we utilize two laser spot sizes per layer—delivering the best surface finish, small feature definition and throughput.

### DOZENS OF ENGINEERED PLASTIC MATERIALS

In the last 30 years, 3D Systems has supported more than 80 SLA additive materials, tuned to customers' application needs, through innovation and partnerships. Get the mechanical specifications you need with a wide variety of differentiated materials.

### 24/7 UTILIZATION

Get the highest productivity possible with the fastest print technology for large and production runs. Quick interchangable material delivery modules keep machines running to advance your part manufacturing workflow, while 3D Connect Service offers proactive and preventative support.



Functional testing and assembly checks of Touch haptic device with best-in-class clarity

## ProJet® 6000 & 7000

Step up to the gold standard in 3D printing with genuine SLA

The Projet 6000 offers all the benefits of SLA in a smaller footprint, so you can print with fine feature detail in a wide choice of performance-engineered materials that match or exceed traditional plastic properties.

The ProJet 7000 offers the same SLA benefits of the ProJet 6000, with more than double the build volume so you can print even larger parts for prototyping, rapid tooling and end use with fine-feature detail.



## ProX<sup>®</sup> 800 & 950

Production SLA for the ultimate in speed, accuracy and operating economics

ProX 800 and ProX 950 SLA printers build parts with outstanding surface smoothness, feature resolution, edge definition and tolerances. Offering the broadest range of materials among all 3D printers, they are also highly efficient, with minimal waste and low total cost of ownership. Combined with their exceptional productivity and reliability, it's no wonder that 3D Systems' SLA printers are the #1 choice of professional service bureaus.

## **Materials Spotlight**

## Widest range of materials for application diversity

3D Systems' Accura® SLA materials are the industry's gold standard for accuracy, providing excellent resolution, surface finish and dimensional tolerances. In addition to functional prototypes and end-use parts, Accura materials create investment casting patterns, master patterns for rapid tooling and fixtures.



### **RIGID**

Rigid plastics offering similar aesthetics and properties to injection-molded ABS.



### **TOUGH, DURABLE**

Excellent for general purpose prototyping and production for parts with the look and feel of polypropylene.



#### **CLEAR AND CASTABLE**

Exceptional clarity makes SLA ideal for printing bottles, light covers, housings, QuickCast® sacrificial patterns for investment casting and more.



## HIGH TEMPERATURE AND COMPOSITE

With heat deflection temperatures ranging from 65°C to over 215°C, these materials offer exceptional performance under extreme conditions.



### **SPECIALTY MATERIALS**

Choose from Accura specialty materials, including for jewelry casting or dental models production.



### All-in-one software for plastic printing

An exclusive software for 3D Systems plastic printers to prepare, optimize and print 3D CAD data. 3D Sprint delivers all the tools you need to quickly and efficiently go from design to high quality true to CAD printed parts without needing additional third party software.



**Print True-to-CAD Parts** - Smart geometry processing and powerful slicing technology eliminates geometry processing artifacts.

**Streamline Time to Finished Parts** - Extensive automated toolset facilitates the entire 3D printing process, saving on material and post-processing time without compromising on part quality.

### **Increase Productivity with Optimized Data**

**Management** - Accurately estimate print time and optimize material levels and usage both before and during the print operation.

**Go Pro with 3D Sprint PRO for SLA** (optional) - Facilitate file preparation with native CAD import and advanced mesh repair tools, increase productivity with auto placement, enhance manufacturing efficiency with finely tuned supports, and reduce the need for additional software with embedded Geomagic trusted technology.



### A new level of management in 3D production

3D Connect Service provides a secure cloud-based connection to 3D Systems service teams for proactive and preventative support to enable better service, improve uptime and deliver production assurance for your system.

	ProJet® 6000 HD	ProJet® 7000 HD	ProX® 800	ProX® 950
PRINTER PROPERTIES				
<b>3D Printer Size Crated</b> (WxDxH)	1676 x 889 x 2006 mm (66 x 35 x 79 in)	1860 x 982 x 2070 mm (73.5 x 38.5 x 81.5 in)	190 x 163 x 248 cm (75 x 64 x 98 in)	242 x 173 x 254 cm (95 x 68 x 100 in)
<b>3D Printer Size Uncrated</b> (WxDxH)	787 x 737 x 1829 mm (31 x 29 x 72 in)	984 x 854 x 1829 mm (39.0 x 34.0 x 72 in)	137 x 160 x 226 cm (50 x 63 x 89 in)	220 x 160 x 226 cm (87 x 63 x 89 in)
3D Printer Weight Crated (not incl. MDM) 3D Printer Weight Uncrated (not incl. MDM)	272 kg (600 lb) 181 kg (400 lb)	363 kg (800 lb) 272 kg (600 lb)	1134 kg (2500 lbs) 907 kg (2000 lbs)	1951 kg (4300 lbs) 1724 kg (3800 lbs)
Electrical Requirements	100-240 VAC, 50/60 Hz, single-phase, 750 W	100-240 VAC, 50/60 Hz, single-phase, 750 W	200-240 VAC 50/60 Hz, single-phase, 30 amps	200-240 VAC 50/60 Hz, single-phase, 50 amps
Operating Temperature Range	18-28 °C (64-82 °F)	18-28 °C (64-82 °F)	20-26 °C (68-79 °F)	20-26 °C (68-79 °F)
Noise	< 65 dBa estimated	< 65 dBa estimated	Not to exceed 70 dBA	Not to exceed 70 dBA
Interchangeable Material Deliverable Modules (MDMs) with Integrated Elevator and Removable Applicator	Additional MDM (3 sizes)	Additional MDM (2 sizes)	Additional MDM (3 sizes)	Additional MDM (1 size)
Accessories	ProCure™ 350 UV Finisher Parts Washer Right Height Table	ProCure™ 350 UV Finisher	Manual Offload Cart ProCure™ 750 UV Finisher	Manual Offload Cart ProCure™ 1500 UV Finisher

PRINTING SPECIFICATIONS				
Max Build Volume (xyz) <sup>1</sup>	Flexible build volume options with interchangeable material delivery modules (MDM)			
Full	250 x 250 x 250 mm (10 x 10 x 10 in) 40 l (10.6 U.S. gal)	380 x 380 x 250 mm (15 x 15 x 10 in) 84 l (22.2 U.S. gal)	650 x 750 x 550 mm (25.6 x 29.5 x 21.65 in); 414 l (109.3 U.S. gal)	1500 x 750 x 550 mm (59 x 29.5 x 21.65 in); 935 I (247 U.S. gal)
Half	250 x 250 x 125 mm (10 x 10 x 5 in) 5.8 U.S. gal (22 l)	N/A	650 x 750 x 275 mm (25.6 x 29.5 x 10.8 in); 272 l (71.9 U.S. gal)	N/A
Short	250 x 250 x 50 mm (10 x 10 x 2 in) 24 l (6.3 U.S. gal)	380 x 380 x 50 mm (15 x 15 x 2 in) 32 I (8.5 U.S. gal)	650 x 750 x 50 mm (25.6 x 29.5 x 1.97 in); 95 I (25.09 U.S. gal)	N/A
Max Part Weight	9.6 kg (21.1 lb)	21.6 kg (47.6 lb)	75 kg (165 lbs)	150 kg (330 lbs)
Max Resolution <sup>2</sup>	4000 DPI	4000 DPI	2000 DPI	2000 DPI
Accuracy	0.025-0.05 mm per 25.4 mm (0.001-0.002 inch per inch) of part dimension Accuracy may vary depending on build parameters, part geometry and size, part orientation and post-processing methods.			
Intelligent Scanning Strategy	Automated in build dual mode speeds on each layer: Fine point scanning for small features and external surfaces, broader scanning for larger features and internal surfaces.			
Fine Feature/Outer Surface Scanning Larger Feature/Internal Surface Scanning	Down to 75 μm (0.003 in) 750 μm (0.030 in)	Down to 75 μm (0.003 in) 750 μm (0.030 in)	125 μm (0.005 in) 750 μm (0.030 in)	125 μm (0.005 in) 750 μm (0.030 in)

MATERIALS			
Build Materials	See material selector guide and individual material datasheets for specifications on available materials.		
Material Packaging	2L click-in cartridges for hands-free, drip-free automated refill process	10 kg click-in cartridges for hands-free, drip-free automated refill process	

SOFTWARE AND NETWORK				
<b>SLA Printer Interface Software</b> (also refered to as printer control code)	Fast and intuitive printer interface software with advanced capabilities to maximize machine utilization.  Use advanced tools to restart any build and edit recoating parameters on the fly to ensure a successful build.			
3D Sprint® Software	Prepares and optimizes design file data, and manages the additive manufacturing process on plastic 3D printers.			
3D Sprint Software and Hardware Requirements	Windows 10 (64-bit), U Intel® or AMD® processor with a minimum of 2.0GHz, 4 GB RAM, 7GB of available hard-disk space, OpenGL 2.1 and GLSL 1.20 enabled graphics card, 1280x960 screen resolution, Graphics card: Intel HD or Iris (HD 4000 or newer), or Nvidia GeForce GTX 285, Quadro 1000 or newer, or AMD Radeon HD 6450 or newer Internet Explorer 9 or newer Microsoft .NET Framework 4.6.1 (installed with application)			
3D Connect <sup>™</sup> Capable	3D Connect Service provides a secure cloud-based connection to 3D Systems service teams for support.			
Printer Network Compatibility	Network ready with 10/100 Ethernet interface 4MB, USB port	Ethernet, IEEE 802.3 using TCP/IP and NFS, USB port		
Printer Operating System	Windows® 7	Windows® 10		
Input Data File Formats Supported	STL, CTL, OBJ, PLY, ZPR, ZBD, AMF, WRL, 3DS, FBX, MJPDDD, 3DPRINT, BFF, IGES, IGS, STEP, STP, SLI			

<sup>&</sup>lt;sup>1</sup> Maximum part size is dependent on geometry, among other factors.

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.





 $<sup>^{\</sup>rm 2}$  Equivalent DPI based on laser spot location resolution of 0.00635 mm in 3D Systems' testing.