

# **MultiJet Plastic Printers**

Fast and easy printing of functional precision plastic, elastomeric and composite parts with ProJet<sup>®</sup> MJP 3D printers



MultiJet Printing (MJP) technology produces high fidelity, true-to-CAD parts, with fast print times, easy operation and simple post-processing for high productivity and true simplicity, from file to finished part.



### Accelerate Your Product Development with Accurate, Detailed Prototypes Printed in Your Office

### **GET MORE PARTS FASTER**

With fast print speeds, easy post-processing and advanced software for a streamlined workflow, getting accurate, high quality parts for your project or application is easier and faster than ever.

### TRUE-TO-CAD FIDELITY

Even tiny features come out right—and there's no risk of breaking small details during post-processing, allowing for greater geometric freedom. Comparing corners and edges, you will find our MJP parts to be sharper than many other 3D printing technologies.

### SIMPLE FILE-TO-PART WORKFLOW

The ProJet MJP Series is driven by 3D Sprint<sup>®</sup>. This exclusive additive manufacturing software for 3D Systems plastic printers streamlines your file-to-part workflow, from preparing and optimizing CAD data to managing the additive manufacturing process.

### EASY POST-PROCESSING

Finishing MJP parts is as easy as melting wax. No hand scraping, high-pressure water jets, caustic chemical baths, or special facilities requirements.



Exceptional clear finish with snap fit capability for functional testing of robust parts



Part accuracy and material performances perfectly suit rapid tooling applications



Print realistic medical models in rigid and elastomeric materials

## ProJet MJP 2500 and 2500 Plus

### High quality, speed and ease-of-use made accessible

Accessing high fidelity, functional plastic or elastomeric prototypes has never been faster, with up to 3x higher 3D printing speeds than similar class printers, and easier with finished parts up to 4x faster than other cleaning methods.

**AFFORDABLE PRICE** – The ProJet MJP 2500 and 2500 Plus are the most affordable MJP printers, yet still offer higher fidelity and more accurate prints than other printers costing up to ten times more.

**PROFESSIONAL PRODUCTIVITY** – Step up from desktop 3D printers to 24/7 usability and get more parts sooner, with same day design verification capability.

# ProJet MJP 5600

### Large format, multi-material composite parts in a single build

Your products are made of multiple materials—now your prototypes can be printed with varying degrees of flexibility, transparency and differentiated shades in one part, giving your 3D prints more realistic mechanical properties for large and small parts.

**DOZENS OF MATERIAL CHOICES** – This printer and material system simultaneously prints and blends flexible and rigid photopolymers, layer-by-layer at the voxel level, to achieve superior mechanical properties for a variety of applications, including over-molded parts, multi-material assemblies, rubber-like components, jigs and fixtures, dies and more.

**EXCEPTIONALLY HIGH THROUGHPUT** – The ProJet MJP 5600 is fast when printing composite materials, and even faster when printing single materials.

# More Materials, More Applications

The wide range of VisiJet<sup>®</sup> plastic materials for the ProJet MJP Series enables a broad set of applications for concept modeling, form and fit testing, functional prototyping, fluid flow analysis, rapid tooling, jigs and fixtures and medical applications requiring USP Class VI and/or ISO 10993 certification.

### **ENGINEERING GRADE MATERIALS**

These materials bring a new level of durability and strength to MJP printing, simulating ABS toughness with high impact resistance or polypropylene with exceptional pliability, all with a superior clear finish.

### **RIGID MATERIALS**

Visijet Rigid materials print highly rigid, durable, plastic parts that look and feel like injection molded parts with an exceptionally smooth finish. Rigid materials are available in a variety of colors from white, black and clear, to gray and tan.

### **ELASTOMERIC MATERIALS**

High performance elastomeric materials for MJP printers have an amazing elongation and Shore A hardness. Suitable for prototyping a wide range of mechanical applications requiring rubber-like functionality, these materials are ideal for gaskets, overmolds, and other applications requiring extreme flex properties.

### HIGH TEMPERATURE MATERIALS

With heat deflection temperatures up to 90°C with no additional thermal post-cure required, VisiJet heat resistant materials offer high stability for testing under elevated temperature conditions and for rapid tooling applications.

### **BIOCOMPATIBLE MATERIALS**

A significant number of our VisiJet materials are capable of meeting USP Class VI and/or ISO 10993 standards for use in medical applications requiring biocompatibility.

### **MULTI-MATERIAL COMPOSITES**

In addition to printing in pure base VisiJet CR and VisiJet CE materials, you can precisely mix elastomeric and rigid photopolymers together, voxel-by-voxel, to achieve superior mechanical properties and custom performance characteristics to meet your exacting specifications. An entire object can be printed in any of these composites, or a user can easily select a specific region of a part to be any number of different material combinations. Engineering-grade VisiJet materials make it possible to create sturdy buckle closures



Rigid and engineering materials can be drilled, pressed and tapped with standard hardware

Combine pliability and strength to test elastomeric part designs with VisiJet elastomeric materials

Injection molding MUD inserts with high strength and heat deflection performance are well suited for quick turn prototypes in final plastic

Medical compatibility enables the production of fine featured bioreactors for living cell growth

Multi-material prototypes can blend clear, black or white to communicate ideas and simulate finished products





Courtesy of Antleron



Projet MJP 2500

Projet MJP 2500 Plus

ProJet MJP 5600

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**3D SYSTEMS** 

**Additive Manufacturing Solutions** 

PRINTER PROPERTIES				
<b>3D Printer Size Crated</b> (WxDxH)	1397 x 927 x 1314 mm (55 x 36.5 x 51.7 in)	1397 x 927 x 1314 mm (55 x 36.5 x 51.7 in)	2007 x 1650 x 2032 mm (79 x 65 x 80 in)	
<b>3D Printer Size Uncrated</b> (WxDxH)	1120 x 740 x 1070 mm (44.1 x 29.1 x 42.1 in)	1120 x 740 x 1070 mm (44.1 x 29.1 x 42.1 in)	1700 x 900 x 1620 mm (66.9 x 35.4 x 63.8 in)	
3D Printer Weight Crated 3D Printer Weight Uncrated	325 kg (716 lb) 211 kg (465 lb)	325 kg (716 lb) 211 kg (465 lb)	1180 kg (2600 lbs) 935 kg (2060 lbs)	
Electrical Requirements	100-127 VAC, 50/60 Hz, 15A, single-phase   200-240 VAC, 50/60 Hz, 10A, single-phase		100-127 VAC, 50/60 Hz, 20A, single-phase 200-240 VAC, 50/60 Hz, 10A, single-phase	
Internal Hard Drive	500 Gb minimum	500 Gb minimum	N/A	
Operating Temperature Range	18-28 °C (64-82 °F), reduced print speed at > 25 °C (77 °F)		18-28 °C (64-82 °F)	
Operating Humidity	30-70 % relative humidity		N/A	
Noise (at medium fan setting)	< 65 dBa estimated	< 65 dBa estimated	< 65 dBa estimated	
<b>Post Processing</b> (for easy removal of eco-friendly wax supports)	MJP EasyClean System or ProJet Finisher (optional)		ProJet Finisher XL (optional)	
Certifications	CE	CE	CE	

#### **PRINTING SPECIFICATIONS**

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Printing Modes	HD - High Definition	HD - High Definition UHD - Ultra High Definition	UHD - Ultra High Definition UHDS - Ultra High Definition-Single XHD - Xtreme High Definition XHDS - Xtreme High Definition-Single
Max Build Volume (xyz) <sup>1</sup>	294 x 211 x 144 mm (11.6 x 8.3 x 5.6 in)	294 x 211 x 144 mm (11.6 x 8.3 x 5.6 in)	518 x 381 x 300 mm (20.4 x 15 x 11.8 in)
Resolution	<u>HD Mode</u> : 800 x 900 x 790 DPI; 32 μ layers	<u>HD Mode</u> : 800 x 900 x 790 DPI; 32 μ layers <u>UHD Mode</u> : 1600 x 900 x 790 DPI; 32 μ layers	<u>UHD &amp; UHDS Modes</u> : 600 x 600 x 1600 DPI; 16 μ layers <u>XHD &amp; XHDS Modes:</u> 750 x 750 x 2000 DPI; 13 μ layers
Accuracy (typical)	± 0.001-0.002 inch per inch (0.025-0.05 mm per 25.4 mm) of part dimension (on platform). Accuracy may vary depending on build parameters, part geometry and size, part orientation and post-processing.		

### MATERIALS

Build Materials	See material selector guide and tech spec sheets for specifications on available materials.		
Material Packaging	Build: 3.30 lbs (1.5 kg) bottles Support: 3.08 lbs (1.4 kg) bottles	4.41 lbs (2 kg) bottles	
Auto Switching Bottle Capacity	2 of each (build/support)	4 of each (build/support)	

### SOFTWARE AND NETWORK

3D Sprint <sup>®</sup> Software	Easy build job set-up, submission and job queue management; Automatic part placement and build optimization tools; Part stacking and nesting capability; Extensive part editing tools; Automatic support generation; Job statistics reporting tools			
Client Hardware Recommendation	<ul> <li>3 GHz multiple core processor (2 GHz Intel® or AMD® processor mini) with 8 GB RAM or more (4 GB mini)</li> <li>OpenGL 3.2 and GLSL 1.50 support (OpenGL 2.1 and GLSL 1.20 mini), 1 GB video RAM or more, 1280 x 1024 (1280 x 960 mini) screen resolution or higher</li> <li>SSD or 10,000 RPM hard disk drive (3 GB of available hard-disk space for cache mini)</li> <li>Google Chrome or Internet Explorer 11 (Internet Explorer 9 mini)</li> <li>Other: 3 button mouse with scroll, keyboard, Microsoft .NET Framework 4.6.1 installed with application</li> </ul>			
3D Connect™ Capable	3D Connect Service provides a secure cloud-based connection to 3D Systems service teams for support.		No	
Connectivity	Network ready 10/100/1000 BaseT Ethernet interface USB port		Network ready 10/100/1000 base Ethernet interface	
E-mail Notice Capability	Yes	Yes	Yes	
Client Operating System	Windows <sup>®</sup> 7, Windows 8 or Windows 8.1 (Service Pack), Windows 10			
Input Data Files Supported	STL, CTL, OBJ, PLY, ZPR, ZBD, AMF, WRL, 3DS, FBX, IGES, IGS, STEP, STP, MJPDDD		STL, CTL, SLC, 3DPRINT	
Maximum part size is dependent on geometry, among other factors.			Representative	

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