## 🗶 3D SYSTEMS

# MultiJet Plastic Printers

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



### Make Your Ideas Matter

#### ACCELERATE TIME-TO-MARKET

MJP users around the world are bringing products to market faster. Validate designs, test performance and manufacturability, and align stakeholders quickly, with prototypes that precisely match design intent.

#### ENHANCE QUALITY

Conduct, test and review cycles faster, so you can identify and fix design flaws early. Know that your products have been thoroughly tested before you commit to the cost of tooling.

#### **ITERATE FASTER, INNOVATE BETTER**

Empower your team to test more design concepts to yield better products. Creativity flourishes when it's this easy to try out and show new ideas.

#### **REDUCE COSTS**

Accurate prototypes improve communication with technicians and suppliers, reducing expensive rework. MJP is also used to make rapid tooling at a lower cost than traditional tools, jigs and fixtures.



Shoe sole printed at one time in a combination of flexible black elastomer and rigid white plastic

### **Benefits of MultiJet Printing**

MultiJet Printing technology offers fast print times, easy operation and simple post-processing for high productivity and true simplicity, from file to finished part. Produce the highest fidelity, most true-to-CAD parts of any jetting 3D printing process, in the office or lab environment.

#### **RESULTS YOU CAN TRUST**

Print accurate parts that perform as designed, so you can make decisions with confidence.

#### MICRO-FINE DETAIL RESOLUTION

Even tiny features come out right—and there's no risk of breaking small details during post-processing, allowing for greater geometric freedom. Compare corners and edges—MJP parts have the best defined geometry of any jetting 3D printer.

#### INDUSTRIAL GRADE PRINT HEADS

Every MJP printer comes with an industrialgrade print head designed for long life and high reliability.

#### **GET MORE PARTS FASTER**

Streamline your file-to-part workflow with the advanced 3D Sprint<sup>™</sup> software capabilities, fast print speeds and fast batch support removal.

#### 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.

#### ADVANCED MATERIALS DIVERSITY

The wide range of VisiJet<sup>\*</sup> advanced plastic, elastomeric and composite materials for MJP printers produces high performance parts.

### ProJet<sup>®</sup> MJP 2500 Series

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

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



Combine pliability and strength to test your elastomeric parts designs

#### **PROFESSIONAL PRODUCTIVITY**

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

#### AFFORDABLE PRICE

You no longer have to compromise on part fidelity to get an affordable 3D printer for your office. The 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.

#### CAPABLE PLASTIC AND ELASTOMERIC MATERIALS

Engineered for performance, VisiJet<sup>\*</sup> M2R materials deliver durable white, black or clear plastic parts, and M2 elastomeric materials deliver parts with outstanding elongation and full elastic recovery.

#### **PROFESSIONAL QUALITY**

Make sure your prototypes look, feel and perform as designed. Get professional quality, true-to-CAD fidelity and precision in your own office with MJP's easy workflow.

#### **MJP EasyClean System**

There's no manual support removal needed with MultiJet Printers. The MJP EasyClean System is a new, incredibly simple way to remove supports from MJP parts in under 30 minutes.

Two warmer units use steam and soy-based oil to melt wax supports away, without manual labor and without damaging your printed parts.



Accurate models let you check fit on complex shapes

### ProJet<sup>®</sup> MJP 3600 Series

#### High throughput, resolution and performance

The ProJet MJP 3600 and 3600 Max provide a larger build volume and exceptionally fast print speeds, so you can get more parts printed faster. Its automated batch postprocessing removes support up to 4x faster than other processes and provides more productivity to design evaluation and prototyping needs.

#### HIGH PERFORMANCE PLASTICS, VERSATILE APPLICATIONS

VisiJet M3 materials deliver toughness, durability, stability, high temperature resistance, watertightness, biocompatibility and castability.

#### HIGH THROUGHPUT

With up to twice the print speed of similar class printers, you can print more parts and get them in your hands faster.

#### HIGH DEFINITION PARTS

When getting the finest details right matters, no other jetting printer beats the MJP 3600 Series. High fidelity, smooth surface finish, sharp edges and finest details are preserved by hand-free and safe post-processing.



Functional filter prototype printed in clear, white and black rigid plastics

#### PHASE CHANGE PROCESS

3D Systems MJP employs proprietary thermally-controlled materials for superior print definition. As each heated droplet of material is jetted, it immediately cools and holds its shape as it lands on the part or support surface.

- Printed material does not "ooze" over edges or pool in corners
- Edges are sharp, holes are round, corners are clean
- Ensures excellent sidewall quality



MJP Phase Change Process Without Phase Change





MJP parts simulate the look and feel of many injection molded

plastics so you can approximate

visually and test functionally

### ProJet<sup>®</sup> 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.



Print realistic medical models in rigid and elastomeric materials



New rigid black plastic VisiJet<sup>®</sup> CR-BK enables even more composite mechanical performances

#### **EXCEPTIONALLY HIGH THROUGHPUT**

Combine an over 50% larger build volume with up to 2x faster print speeds and up to 4x faster post-processing than similar class solutions for high-throughput printing. The ProJet MJP 5600 is fast when printing composite materials, and even faster when printing single materials.

#### SUPERIOR PART QUALITY

Get greater geometric freedom and part functionality with multi-material composite printing that delivers accurate, true-to-CAD parts with superior surface finish, sharp edges and fine details.

#### **DOZENS OF MATERIAL CHOICES**

Multi-material prototypes can

blend clear, black or white to communicate ideas and simulate finished products

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.

#### MECHANICAL FUNCTIONAL TESTING

Validate that designs perform correctly in the real world. Find and fix problems early, before committing to tooling.

#### CONCEPT COMMUNICATION

Bring your ideas to life with realistic models for colleagues, customers and others.

#### RAPID TOOLING

Print injection molds, hydroforming dies, patterns and other short-run tooling for concept and bridge production.

#### FORM AND FIT ASSEMBLY TESTING

Check interactions and clearances between components to ensure proper assembly.

#### **ERGONOMIC STUDIES**

There's no replacement for holding a part and exploring it from all angles. MJP parts are smooth, beautiful and accurate for ergonomic testing.

#### JIGS AND FIXTURES

3D print jigs and fixtures quickly and free up CNC equipment for production.

|  | ProJet<br>MJP 2500   | ProJet<br>MJP 2500 Plus  | ProJet<br>MJP 3600   | ProJet<br>MJP 3600 Max   | ProJet<br>MJP 5600  |
|--|--|--|--|--|---|
| Max Build<br>Envelope<br>Capacity<br>(W x D x H) | 11.6 x 8.3 x 5.6 in<br>(295 x 211 x 142 mm)                          |  | <u>HD Mode:</u><br>11.75 x 7.3 x 8 in<br>(298 x 185 x 203 mm)<br><u>UHD &amp; XHD Modes</u> :<br>8 x 7.3 x 8 in<br>(203 x 185 x 203 mm)  | <u>HD Mode:</u><br>11.75 x 7.3 x 8 in<br>(298 x 185 x 203 mm)<br><u>UHD &amp; XHD Modes:</u><br>11.2 x 7.3 x 8 in<br>(284 x 185 x 203 mm)  | <u>All Modes</u> :<br>20.4 x 15 x 11.8 in<br>(518 x 381 x 300 mm)   |
| Resolution<br>(xyz)                              | 800 x 900 x 790 DPI, 32 μ layers                                     |  | <u>HD Mode</u> :<br>375 x 450 x 790 DPI; 32 μ layers<br><u>UHD Mode</u> :<br>750 x 750 x 890 DPI; 29 μ layers  |  | UHD & UHDS Modes:<br>600 x 600 x 1600 DPI;<br>16 μ layers<br>XHD & XHDS Modes:<br>750 x 750 x 2000 DPI;   |
|  |  |  | <u>XHD Mode</u> :<br>750 x 750 x 1600 DPI; 16 μ layers   |  | 13 µ layers   |
| Typical<br>Accuracy                              | ±0.004 in per in (±0.1016 mm per<br>25.4 mm) of part dimension       |  | ±0.001-0.002 in per in (±0.025-0.05 m<br>of part dimension   |  | nm per 25.4 mm)   |
| Build<br>Materials                               | VisiJet M2R-WT* –<br>Rigid White<br>VisiJet M2R-BK* –<br>Rigid Black | VisiJet M2R-WT* –<br>Rigid White<br>VisiJet M2R-BK* –<br>Rigid Black<br>VisiJet M2R-CL* –<br>Rigid Clear<br>VisiJet M2 EBK –<br>Elastomeric Black<br>VisiJet M2 ENT –<br>Elastomeric Natural | Visijet M3-X –<br>Rigid White<br>Visijet M3 Crystal –<br>Rigid Clear<br>Visijet M3 Black –<br>Rigid Black<br>Visijet M3 Proplast –<br>Rigid Natural<br>Visijet M3 Navy –<br>Rigid Blue<br>Visijet M3 Techplast –<br>Rigid Gray<br>Visijet M3 Procast –<br>Castable | Visijet M3-X –<br>Rigid White<br>Visijet M3 Crystal –<br>Rigid Clear<br>Visijet M3 Black –<br>Rigid Black<br>Visijet M3 Proplast –<br>Rigid Natural<br>Visijet M3 Navy –<br>Rigid Blue<br>Visijet M3 Techplast –<br>Rigid Gray<br>Visijet M3 Procast –<br>Castable | Base materials:<br>Visijet CR-WT –<br>Rigid White<br>Visijet CR-CL –<br>Rigid Clear<br>Visijet CR-BK –<br>Rigid Black<br>Visijet CE-BK –<br>Elastomeric Black<br>Visijet CE-NT –<br>Elastomeric Natural<br><i>Plus more than</i><br>100 composite<br>combinations |
| Support<br>Material                              | Eco-friendly, easily removable wax                                   |  |  |  |   |
| Post-<br>processing                              | MJP EasyClean System   |  | ProJet Finisher  |  | ProJet Finisher XL  |
| Included<br>Software                             | 3D Sprint  | 3D Sprint  | 3D Sprint  | 3D Sprint  | 3D Sprint   |
| Standard<br>Warranty                             | 1 year parts<br>& labor  | 1 year parts<br>& labor  | 1 year parts & labor<br>5 year printhead   | 1 year parts & labor<br>5 year printhead   | 1 year parts & labor<br>5 year printhead  |
| * Respectively                                   | v replaces former Vis  | ilet <sup>®</sup> M2 RWT_RBK and   | RCI materials  |  |   |

Accuracy may vary depending on build parameters, part geometry and size, part orientation, and postprocessing. 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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