

# MULTIJET PLASTIC PRINTERS

Functional precision plastic parts with ProJet® MJP 3D printers



# Make Your Ideas Matter

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3D Systems' MultiJet Printing (MJP) process creates precise plastic parts that are ideal for functional prototyping, rapid tooling, and many other applications. Print rigid or flexible parts with ABS-like plastics and true elastomers for real functionality and performance. You can even create composite materials with tailored mechanical properties and print with multiple materials for complex parts with special features such as overmolding.

MJP offers exceptional resolution with layer thicknesses as low as 13 microns. Selectable print modes let you choose the best combination of resolution and print speed, so it's easy to find a combination that meets your needs. Parts have smooth finish and can achieve accuracies approaching SLA precision for many applications.



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

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## 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.

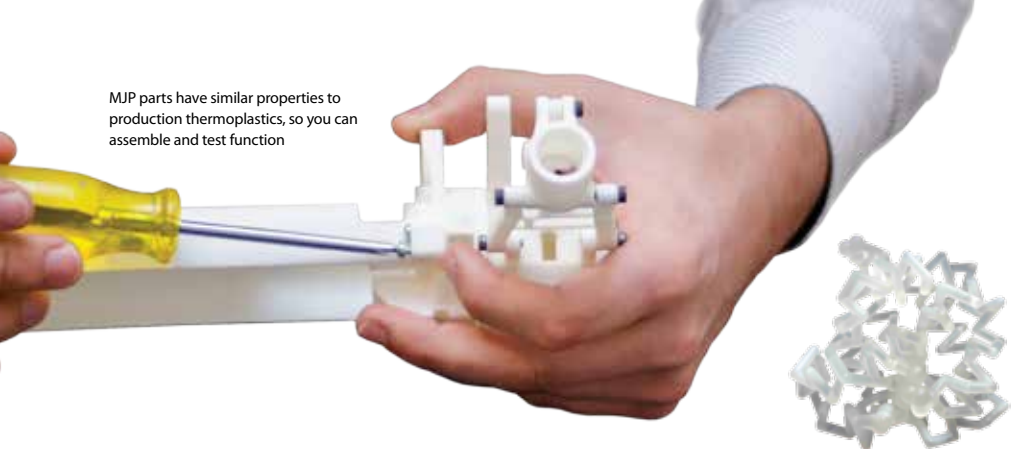
## ITERATE FASTER, INNOVATE BETTER

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.

MJP parts have similar properties to production thermoplastics, so you can assemble and test function



Print objects that would be impossible to make any other way

## Benefits of MultiJet Printing

The ProJet MJP 3600 series and 5500X employ MultiJet Printing technology to produce the highest fidelity, truest-to-CAD parts of any jetting 3D printing process.

### RESULTS YOU CAN TRUST

Print accurate parts that maintain integrity over time, so you can make decisions with confidence.

### 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.

### MICRO-FINE DETAIL RESOLUTION

The high resolution of MultiJet Printing means even tiny features come out right—and there's no risk of breaking small features during post-processing.

### SHARP EDGES AND CORNERS

Go ahead and compare—MJP parts have the best defined geometry of any jetting 3D printer.

### GREATER GEOMETRIC FREEDOM

With some printers, the inability to remove supports from tight spaces limits design freedom. MJP's wax supports just melt away from even the tightest spaces.

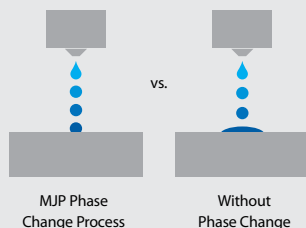
### INDUSTRIAL GRADE PRINT HEADS

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

### 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



# ProJet® MJP 3600 Series

## High throughput for more productivity

The ProJet MJP 3600 and 3600 Max provide a high capacity build volume and exceptionally fast print speeds, so you can get more parts printed faster.

### HIGH THROUGHPUT

With up to twice the print speed, 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.

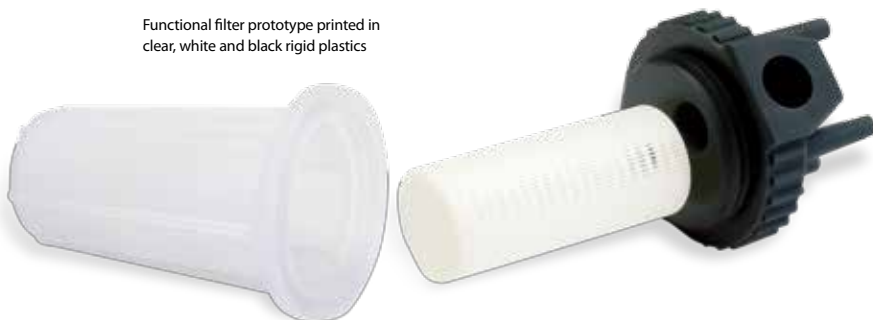
### CLASS VI CAPABLE FOR HEALTHCARE APPLICATIONS

With biocompatible materials that have passed USP Class VI testing, you can print parts for medical devices and more.



Accurate models let you check fit on complex shapes

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



## MJP APPLICATIONS

### 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.

### Form and fit assembly testing

Check interactions and clearances between components to ensure proper assembly.

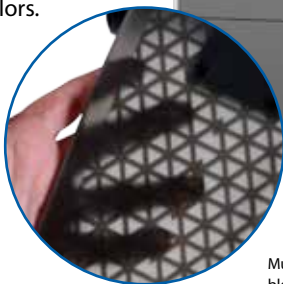
# ProJet® MJP 5500X

## Composite multi-material 3D printer

Your products are made of multiple materials—and now your prototypes and concept models can be printed in multiple materials, giving your 3D prints more realistic mechanical properties and differentiated colors.



Print transparent, functional components and housings to see internal workings as assembled



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



### DOZENS OF MATERIAL CHOICES

This ingenious printer and material system simultaneously prints and blends together flexible and rigid photopolymers, layer-by-layer at the pixel level, to achieve superior mechanical properties.

### EXTENSIVE BUILD ENVELOPE

With a whopping 60% larger build volume than the closest competitor, you can print larger parts and more parts in a single build.

### EXCEPTIONALLY HIGH THROUGHPUT

The MJP 5500X is fast when printing composite materials, and even faster when printing single materials at a time.

### EXCEPTIONAL ELASTOMERIC PERFORMANCE

VisiJet composite materials are engineered for performance. The MJP 5500X can print elastomeric parts with amazing 650% elongation and complete elastic recovery.

### Rapid tooling

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

### Ergonomic studies

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

### Jigs & fixtures

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

## ProJet MJP 3600

## ProJet MJP 3600 Max

## ProJet MJP 5500X

|   |   |   |   |
|---|---|---|---|
| <b>Max Build Envelope Capacity</b><br>(W x D x H) | <b>HD Mode:</b> 11.75 x 7.3 x 8 in<br>(298 x 185 x 203 mm)<br><b>UHD &amp; XHD Modes:</b> 8 x 7 x 6 in<br>(203 x 178 x 152 mm)  | 11.75 x 7.3 x 8 in<br>(298 x 185 x 203 mm)  | 20.4 x 15 x 11.6 in<br>(518 x 381 x 295 mm)   |
| <b>Resolution</b><br>(xyz)                        | <b>HD Mode:</b> 375 x 375 x 790 DPI (xyz); 32 µ layers<br><b>UHD Mode:</b> 750 x 750 x 890 DPI (xyz); 29 µ layers<br><b>XHD Mode:</b> 750 x 750 x 1600 DPI (xyz); 16 µ layers   |   | <b>HD Mode:</b><br>375 x 375 x 1000 DPI; 25 µ layers<br><b>UHD &amp; UHDS Modes:</b><br>600 x 600 x 1600 DPI; 16 µ layers<br><b>XHD &amp; XHDS Modes:</b><br>750 x 750 x 2000 DPI; 13 µ layers                |
| <b>Typical Accuracy</b>                           | ±0.001-0.002 in per in<br>(±0.025-0.05 mm per 25.4 mm)<br>of part dimension   | ±0.001-0.002 in per in<br>(±0.025-0.05 mm per 25.4 mm)<br>of part dimension   | ±0.001-0.002 in per in<br>(±0.025-0.05 mm per 25.4 mm)<br>of part dimension   |
| <b>Build Material</b>                             | VisiJet M3-X – Rigid White<br>VisiJet M3 Crystal – Rigid Clear<br>VisiJet M3 Black – Rigid Black<br>VisiJet M3 Proplast – Rigid Natural<br>VisiJet M3 Navy – Rigid Blue<br>VisiJet M3 Techplast – Rigid Gray<br>VisiJet M3 Procast – Castable | VisiJet M3-X – Rigid White<br>VisiJet M3 Crystal – Rigid Clear<br>VisiJet M3 Black – Rigid Black<br>VisiJet M3 Proplast – Rigid Natural<br>VisiJet M3 Navy – Rigid Blue<br>VisiJet M3 Techplast – Rigid Gray<br>VisiJet M3 Procast – Castable | <b>Base materials:</b><br>VisiJet CR-WT – Rigid White<br>VisiJet CR-CL – Rigid Clear<br>VisiJet CE-BK – Elastomeric Black<br>VisiJet CE-NT – Elastomeric Natural<br>Plus more than 100 composite combinations |
| <b>VisiJet Support Material</b>                   | Eco friendly, easily removable wax  |   |   |
| <b>Post-processing</b>                            | ProJet Finisher   |   |   |
| <b>Included Software</b>                          | ProJet Accelerator<br>Print3D mobile app  |   | 3DSPRINT  |
| <b>Standard Warranty</b>                          | 1 year parts & labor<br>5 year printhead  | 1 year parts & labor<br>5 year printhead  | 1 year parts & labor<br>5 year printhead  |

Accuracy may vary depending on build parameters, part geometry and size, part orientation, and post-processing. 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.

# MANUFACTURING *THE* FUTURE™



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