Selective Laser Sintering Printers

Production thermoplastic parts with ProX® and sPro™ SLS printers
Limitless Possibilities with Tool-less Manufacturing

**ELIMINATE THE TIME AND EXPENSE OF TOOLING**
Direct 3D production from a CAD file eliminates the cost and time involved in tooling and fixtures.

**STREAMLINE YOUR WORKFLOW**
Eliminate extensive programming and fixturing to free up your machinists. Drastically reduce assembly times by reducing total part count.

**INCREASE MANUFACTURING AGILITY**
Additive manufacturing requires no tooling, reducing overhead and increasing economies of scope.

**INCREASE MANUFACTURING AGILITY**
SLS technology frees designers from the restrictions of traditional manufacturing. Complete assemblies can be printed as one part, improving functionality, reducing cost and increasing reliability.

**HOUSINGS**
Manufacture in small to medium lot sizes, and bridge the time until final tools are manufactured.

**MACHINERY COMPONENTS**
Integrate functionality and replace complex assemblies.

**FUNCTIONAL TESTING**
Test your prototypes for functionality—such as heat run cycle tests.

**JIGS AND FIXTURES**
Print complex assembly aids and free up CNC time for other projects.

**DUCTING**
Optimize flow and fit in tight spaces with the freedom to print duct-work that is impossible to mold.

**CONSUMER GOODS**
High-speed production for small lots and custom products.
sPro™ 60, 140 & 230
Accurate, tough production parts

3D Systems sPro SLS systems share a common architecture to produce high-resolution, durable thermoplastic parts available in medium to large build volumes.

TOUGH AND DURABLE PARTS
Industrial-grade performance delivers the toughest applications, print after print.

EXCELLENT PART RESOLUTION, SURFACE FINISH AND EDGE DEFINITION
Print small to large parts with fine detail and sharp edges.

FLEXIBILITY THROUGH UPGRADE OPTIONS
Upgradeable with the flexibility to increase speed and resolution to match your needs now and in the future.

OPEN MATERIAL ARCHITECTURE
Broad choice of materials through flexible print parameters.

TECHNOLOGY LEADERSHIP
3D Systems’ patented Precision Counter Rotating Roller system spreads and compacts each layer of powder materials to create strong, dense parts with very smooth surfaces.
ProX® SLS 500
Production ready for tough, functional parts

Go beyond prototyping with production-ready SLS—highest accuracy, durability, repeatability and lowest total cost of operations.

UNIFORM PROPERTIES
Tough and durable parts with uniform 3D mechanical properties: machine vs. machine, print after print, independent of part orientation.

UNPRECEDEDENTED MATERIAL EFFICIENCY
High material efficiency delivers up to 95% return for economical and environmentally friendly operation.

STREAMLINE YOUR WORKFLOW
Automated production tools, powder handling and recycling functions, and mobile production controls accelerate time to part.

UNMATCHED PART QUALITY
Best resolution, surface finish and edge definition of any 3D sintering technology.

MAXIMIZE YOUR INVESTMENT
Lower your cost of ownership with automated production tools, remarkably high throughput, material efficiency and repeatability.

MATERIAL QUALITY CONTROL SYSTEM (MQC)
Engineered specifically for the ProX SLS 500, the MQC ensures excellent parts and efficient use of material. It automatically collects, recycles and blends material, letting the printer run 24/7 for maximum productivity.
Thermoplastics and Elastomers for Robust Production Parts

Select from a wide range of DuraForm® materials to match material performance with your specific application requirements. ProX materials are exclusive to the ProX SLS 500.

**DuraForm PA / DuraForm ProX PA**
Extra strong thermoplastic with superior mechanical properties and surface quality. This durable engineering plastic has balanced mechanical properties and fine-feature surface resolution.

**DuraForm GF / DuraForm ProX GF**
A glass-filled nylon engineering plastic with high stiffness, elevated temperature resistance, and isotropic properties.

**DuraForm HST Composite / DuraForm ProX HST Composite**
A fiber-reinforced material with an ideal mix of stiffness, strength and high temperature resistance.

**DuraForm ProX AF+**
Aluminum-filled nylon 12-based powder that produces stiff and rigid metallic appearing parts.

**DuraForm EX Black and Natural / DuraForm ProX EX BLK**
Impact-resistant thermoplastic with the toughness of injection-molded polypropylene (PP) and ABS.

**DuraForm FR1200 / DuraForm ProX FR1200**
A flame-retardant nylon 12 material that meets aerospace industry standards for flammability, smoke density and smoke toxicity.

**DuraForm TPU and DuraForm Flex**
Flexible materials with excellent memory and abrasion resistance.

* Availability varies by printer model (see details on the last page).

**SLS TECHNOLOGY FROM 3D SYSTEMS**
SLS production 3D printers are the proven industry standard. Benefit from 3D Systems’ experience with our global product support team, offering dedicated service and application engineers to meet your rigorous quality requirements at facilities around the world.
## Specifications

<table>
<thead>
<tr>
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<th>ProX SLS 500</th>
<th>sPro 60 HD-HS</th>
<th>sPro 140</th>
<th>sPro 230</th>
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<tbody>
<tr>
<td><strong>Max build envelope capacity (X x Y x Z)</strong></td>
<td>15 x 13 x 18 in (381 x 330 x 460 mm)</td>
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<td>22 x 22 x 18 in (550 x 550 x 460 mm)</td>
<td>22 x 22 x 30 in (550 x 550 x 750 mm)</td>
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<tr>
<td><strong>Build material</strong></td>
<td>DuraForm ProX PA</td>
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<td>DuraForm ProX GF</td>
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<td>DuraForm ProX HST</td>
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<td>DuraForm ProX AF+</td>
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<td>DuraForm ProX EX BLK</td>
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<td>DuraForm ProX FR1200</td>
<td>DuraForm Flex</td>
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<td>CastForm PS</td>
<td>DuraForm Flex</td>
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<td>DuraForm FR1200</td>
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<tr>
<td><strong>Layer thickness range (typical)</strong></td>
<td>0.003 – 0.006 in (0.08 – 0.15 mm)</td>
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<td>(0.004 in, 0.10 mm)</td>
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<tr>
<td><strong>Volume build rate</strong></td>
<td>1.8 l/hr</td>
<td>1.8 l/hr</td>
<td>3.0 l/hr</td>
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<tr>
<td><strong>Powder recycling and handling</strong></td>
<td>Fully automatic</td>
<td>Manual</td>
<td>Automatic</td>
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</tr>
</tbody>
</table>

**Forming piston printed in DuraForm ProX PA**

**DuraForm PA Dashboard**

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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.