

# ProX™ SLS Series

Production 3D Printers



3DSYSTEMS®

## Manufacture strong, functional parts and assemblies faster than ever

The ProX™ 500 and 500 Plus are cutting-edge Selective Laser Sintering (SLS®) production 3D printers from 3D Systems that create injection molding-grade parts without expensive tooling. Designed for smooth integration with your manufacturing workflow, these production printers empower you to rethink entire production and supply chain strategies, allowing for advanced product performance, lower total manufacturing costs, and localized on-demand manufacturing.

The ProX 500 prints in DuraForm® ProX plastic material to produce parts with superior mechanical properties, precision, resolution, surface finish and edge definition compared to any other SLS system. The ProX 500 Plus prints in additional materials, including glass filled and aluminum + fiber filled, and offers faster and higher resolution modes. The included state-of-the-art Material Quality Center (MQC) module ensures unrivaled material recyclability for efficient, clean and automated production.



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**MANUFACTURING THE FUTURE**

# ProX™ SLS Series

## Production 3D Printers



3DSYSTEMS™

|  | ProX 500   | ProX 500 Plus  |
|--|--|--|
| <b>Compatible Materials</b>            | DuraForm ProX  | DuraForm ProX<br>DuraForm ProX GF<br>DuraForm ProX AF+ |
| <b>Standard Print Mode</b>             | Fill: 12 m/s (472 in/s)<br>Outline: 3.5 m/s (138 in/s)                           |  |
| Scanning speed                         |  |  |
| Layer thickness                        | Range: 0.08 - 0.15 mm (0.003 - 0.006 in)<br>Typical: 0.10 mm (0.004 in)          |  |
| Volume build rate                      | 2 l/h  | 2 l/h  |
| <b>High-resolution print mode</b>      |  |  |
| Scanning speed                         | N/A  | TBD  |
| Layer thickness                        | N/A  | TBD  |
| Volume build rate                      | N/A  | TBD  |
| <b>High-speed print mode</b>           |  |  |
| Scanning speed                         | N/A  | TBD  |
| Layer thickness                        | N/A  | TBD  |
| Volume build rate                      | N/A  | TBD  |
| <b>Print Envelope Capacity</b>         | 381 x 330 x 457 mm (15 x 13 x 18 in)   |  |
| <b>Powder Layout</b>                   | Variable Speed Counter Rotating Roller   |  |
| <b>Imaging System</b>                  | ProScan™ DX Digital High Speed   |  |
| <b>Laser Power/Type</b>                | 100 W / CO <sub>2</sub>  |  |
| <b>Accessories</b>                     | ProX Material Quality Center (MQC) for automated material handling and recycling |  |
| <b>Electrical Requirements</b>         |  |  |
| Printer                                | 208 VAC/7.5kVA, 50/60Hz, 3 PH  |  |
| MQC                                    | 100-240VAC, 50/60Hz, 1 PH  |  |
| <b>Dimensions Uncrated (W x D x H)</b> | 1744 x 1226 x 2295 cm (68.7 x 48.3 x 90.3 in)                                    |  |
| <b>Weight Uncrated</b>                 | 1360 kg (3000 lbs)   |  |

### Selective Laser Sintering (SLS)

An additive manufacturing technology, SLS involves the use of a high-power laser to fuse small particles of plastic into a three-dimensional part. The laser selectively fuses powdered material by scanning cross sections generated from a 3D model of the part (for example from a CAD file or scan data) on the surface of a powder bed. After each cross section is scanned, the powder bed is lowered by one layer thickness, a new layer of material is applied on top, and the process is repeated until the part is completed.

## Production-tough thermoplastic parts. High throughput. Low part cost.

- **Manufacture strong end-use parts and functional prototypes faster** – ProX SLS printers combine exceptional 3D mechanical properties with additive manufacturing speeds.
- **Be confident in your process and results** – ProX SLS manufactured parts show outstanding resolution, surface finish and edge definition.
- **Streamline your workflow** – Automated production tools, powder handling and recycling functions, and mobile production controls allow you to get the most from every second.
- **Maximize your investment** – With remarkably high throughput, material efficiency and process consistency, the ProX 500 and 500 Plus lower your total cost of ownership.
- **Take advantage of complete design freedom** – It's easy to directly produce short runs of complex or one-off customized products.

### Features:

- Strong parts with excellent mechanical properties
- Consistent mechanical properties independent of build position
- Smooth surface finish, with the highest resolution and edge definition of any SLS system
- More economical and environmentally friendly, with unrivaled material recyclability rates
- Streamlined production control, including automated powder handling
- Lower Total Cost of Ownership (TCO)
- Fast build speed and high throughput with 3D part nesting

### Available Materials:

- DuraForm® ProX – Extra strong and durable engineered production plastic
- DuraForm® ProX GF – Glass filled plastic that is stiffer and offers higher heat deflection
- DuraForm® ProX AF+ – A unique aluminum and fiber filled plastic with higher heat deflection and cast-metal appearance



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