

# Redefining High Definition

The iPro™ SLA® Centers are next generation Stereolithography Precision Centers that quickly and economically produces high-definition plastic parts with unmatched part quality and accuracy.



iPro™ 8000  
SLA® Center

iPro™ 9000 & 9000 XL SLA® Centers

Produce precise, high-definition plastic parts with largely unattended operation from the wide range of 3D Systems' patented Accura® Materials.

[www.3dsystems.com/iPro](http://www.3dsystems.com/iPro)

# iPro<sup>TM</sup> SLA<sup>®</sup> Center



## Next Generation Stereolithography

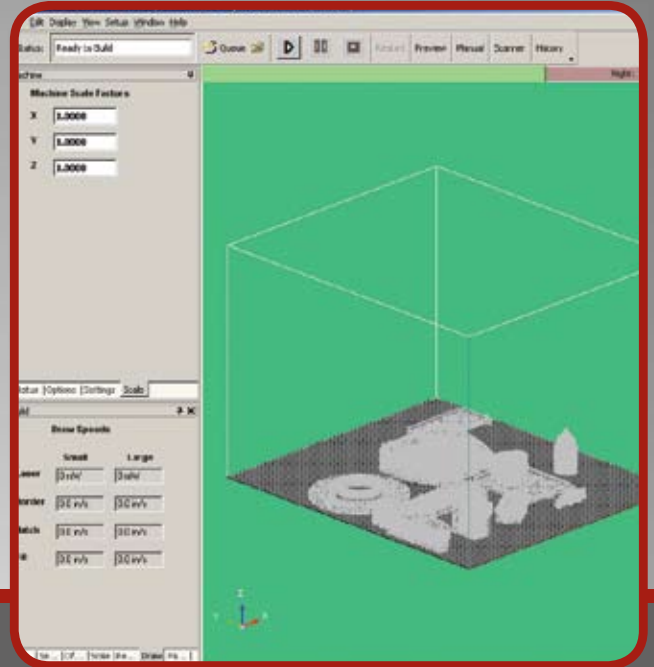
At the heart of the iPro<sup>TM</sup> SLA<sup>®</sup> Centers are 3D Systems' patented and proprietary Stereolithography (SLA<sup>®</sup>) technology. The highly productive iPro<sup>TM</sup> enables users to economically produce hundreds of finely featured or a few extra large plastic parts with the precision and quality usually associated with CNC-machined parts.

- Wide range of build styles and large build volume provides flexible upgradeable configurations and increased productivity and capacity.
- Ready-to-use, high-definition plastic parts delivered through wipe-away FinePoint<sup>TM</sup> supports and virtually no post-processing.
- Simple yet sophisticated operation with intelligent, integrated Materials Management System and automated system features.

## Integrated Digital Technology

The ProScan<sup>TM</sup> Digital Scanning System is equipped with the new SteadyPower<sup>TM</sup> Imager, designed to deliver consistent, reliable and fast output for optimal performance and repeatability comparable to the performance exhibited by traditional CNC Centers.

- Ultra-smooth surface finishes, fine feature detail and accuracy provides flexibility for application requirements.
- Constant power with SteadyPower<sup>TM</sup> Imager provides reliable, high throughput.
- Enhanced process control for Rapid Manufacturing applications.
- Longest laser warranty in the industry at 10,000 hours or 18 months.



## Comprehensive Material Portfolio

3D Systems' Accura® family of materials offers versatility for a wide range of applications, from building finely featured micro parts to fabricating single, extra-large plastic parts.

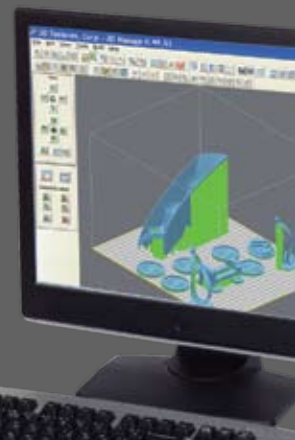
- Accura® 25 Plastic – simulate the performance, properties and aesthetics of molded polypropylene with this accurate and flexible material.
- Accura® 55 Plastic – simulate the performance look and feel of molded ABS with this tough and versatile plastic.
- Accura® 60 Plastic – simulate the properties and appearance of polycarbonate with this clear, tough plastic.
- Accura® Xtreme Plastic – deliver extreme performance and durability and simulate the look and feel of molded plastic.
- Accura® 48HTR Plastic – deliver outstanding rigidity and dimensional stability in the most thermally demanding operating environments.
- Accura® Bluestone™ Material – an engineered nanocomposite plastic that delivers unparalleled stiffness in demanding jigs, fixtures and wind-tunnel applications.

## State-of-the-Art Software Tools

The iPro™ SLA® Centers incorporates 3D Systems' newest 3DManage™ and 3DPrint™ software that provides extensive build management, part editing and automatic support generating tools, as well as extensive remote monitoring and diagnostics capabilities.

- 3DManage™ Software prepares build files for the system controller software while providing users with increased part building flexibility and control of the part build.

3DPrint™ Software provides optimal operations for all the expertly integrated system elements through sophisticated system sequencing and real-time controls and monitoring.



# iPro™ SLA® Center Technical Specifications

	<b>iPro™ 8000</b>	<b>iPro™ 9000</b>	<b>iPro™ 9000 XL</b>
<b>SteadyPower™ Imager</b>			
Type	Solid-state frequency tripled Nd:YVO <sub>4</sub>	Solid-state frequency tripled Nd:YVO <sub>4</sub>	Solid-state frequency tripled Nd:YVO <sub>4</sub>
Wavelength	354.7 nm	354.7 nm	354.7 nm
Power (nominal) - at head	-----1450 mW (1000 mW at resin surface under nominal optical path condition) -----		
Laser Warranty	----- 10,000 hours or 18 months (whichever comes first), replacement at 800mW -----		
<b>Zephyr™ Recoating System</b>			
Process	Removable blade	Removable blade	Removable blade
Adjustment	Self-leveling; self-correcting	Self-leveling; self-correcting	Self-leveling; self-correcting
Layer thickness*	----- Minimum - 0.05 mm (0.002 in); Maximum - 0.15 mm (0.006 in) -----		
<b>ProScan™ Scanning System</b>			
Border spot (diameter @ 1/e <sup>2</sup> )	----- Standard mode nominal 0.13 mm (0.005 in) -----		
Large hatch spot	Nominal 0.76 mm (0.030 in)	Nominal 0.76 mm (0.030 in)	Nominal 0.76 mm (0.030 in)
Maximum part drawing speed*			
Border spot	3.5 m/sec (140 ips)	3.5 m/sec (140 ips)	3.5 m/sec (140 ips)
Large Hatch Spot	25 m/sec (1000 ips)	25 m/sec (1000 ips)	25 m/sec (1000 ips)
<b>Build Envelope Capacity</b>			
	----- Interchangeable Quick change RDMs with integrated elevator and recoater blade -----		
RDM 650M	----- 650 x 350 x 300 mm (25.6 x 13.7 x 11.8 in); 148 l (39.1 U.S. gal) -----		
RDM 750SH	----- 650 x 750 x 50 mm (25.6 x 29.5 x 1.97 in); 95 l (25.09 U.S. gal) -----		
RDM 750H	----- 650 x 750 x 275 mm (25.6 x 29.5 x 10.8 in); 272 l (71.86 U.S. gal) -----		
RDM 750F	----- 650 x 750 x 550 mm (25.6 x 29.5 x 21.65 in); 414 l (109.3 U.S. gal) -----		
RDM 1500XL (iPro™ 9000 XL Only)	n/a	n/a	1500 x 750 x 550 mm (59 x 30 x 22 in)
Maximum Part Weight	75 kg (165 lbs)	75 kg (165 lbs)	150kg (330 lbs)
	----- Resin Delivery Modules (RDMs), Size Options show maximum build envelope capacity (WxDxH); then fill volume -----		
<b>Electrical Requirements</b>			
With singled RDM	----- 200 - 240 VAC 50/60 Hz, single-phase, 30 amps -----		
With dual RDM	----- 200 - 240 VAC 50/60 Hz, single-phase, 50 amps -----		
<b>Operating Environment**</b>			
Temperature range	20 - 26 °C (68 - 79 °F)	20 - 26 °C (68 - 79 °F)	20 - 26 °C (68 - 79 °F)
Maximum change rate	1 °C/hour (1.8 °F/hour)	1 °C/hour (1.8 °F/hour)	1 °C/hour (1.8 °F/hour)
Relative humidity	20 - 50 % non-condensing	20 - 50 % non-condensing	20 - 50 % non-condensing
<b>Space Requirements</b>			
Size (WxDxH), Uncrated	126 x 220 x 228 cm (50 x 86 x 89 in)	212 x 220 x 228 cm (83.3 x 62 x 87 in)	212 x 220 x 228 cm (83.3 x 62 x 87 in)
Weight, Crated no RDM module	1590 kg (3500 lbs)	2404 kg (5300 lb)	2404 kg (5300 lb)
<b>Accessories</b>			
Four interchangeable RDMs	4 options (see Capacity section)	4 options (see Capacity section)	5 options (see Capacity section)
Platform change carts	Manual Offload Cart optional	Manual Offload Cart optional	Manual Offload Cart optional
Processing & Finishing	ProCure™ 750 UV Finisher	ProCure™ 750 UV Finisher	ProCure™ 750 UV Finisher
System Warranty	----- One year warranty, under 3D Systems Purchase Terms and Conditions. -----		
<b>Control System &amp; Software</b>			
Software Tools	3DPrint™ Controller Software	3DManage™ Part Preparation Software	
Operating System	Windows XP Professional (SP2)	Windows XP Professional (SP2) or Vista	
Input data file format		.stl, .slc	
Network type and protocol	Ethernet, IEEE 802.3 using TCP/IP and NFS		

\* Dependent upon part geometry, build parameters and SL material selection. Standards and Regulations: This SLA® Center conforms to Federal Laser Product Performance Standards 21CFR1040.10 Class I laser in normal operation. During field service emission levels can correspond to Class IV laser product.

\*\* For detailed recommendation, refer to 3D Systems' iPro™ 9000 Facility Requirements Guide (FRG).



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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.

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