



Sinterstation® Pro SLS® system

Rapidly manufacture end-use plastic parts to demanding manufacturing specifications directly from 3-D CAD data.



APPLICATIONS

- Rapid manufacturing and rapid prototyping
- Tool-less plastic part manufacturing
- Form/fit/functional plastic prototypes
- Ideal for Automotive, Motorsports, Aerospace, White Goods/Kitchen Appliances, R&D and others needing small to extra-large plastic parts from 3-D CAD data

FEATURES

- Modular design
- Largest available part size
- Closed-loop thermal control
- Digital scanning system
- Fully integrated powder recycle system
- Counter-rotating roller
- Multiple size removable build modules
- Offline thermal station
- Nitrogen generator
- Real-time monitoring software
- Intelligent powder tracking

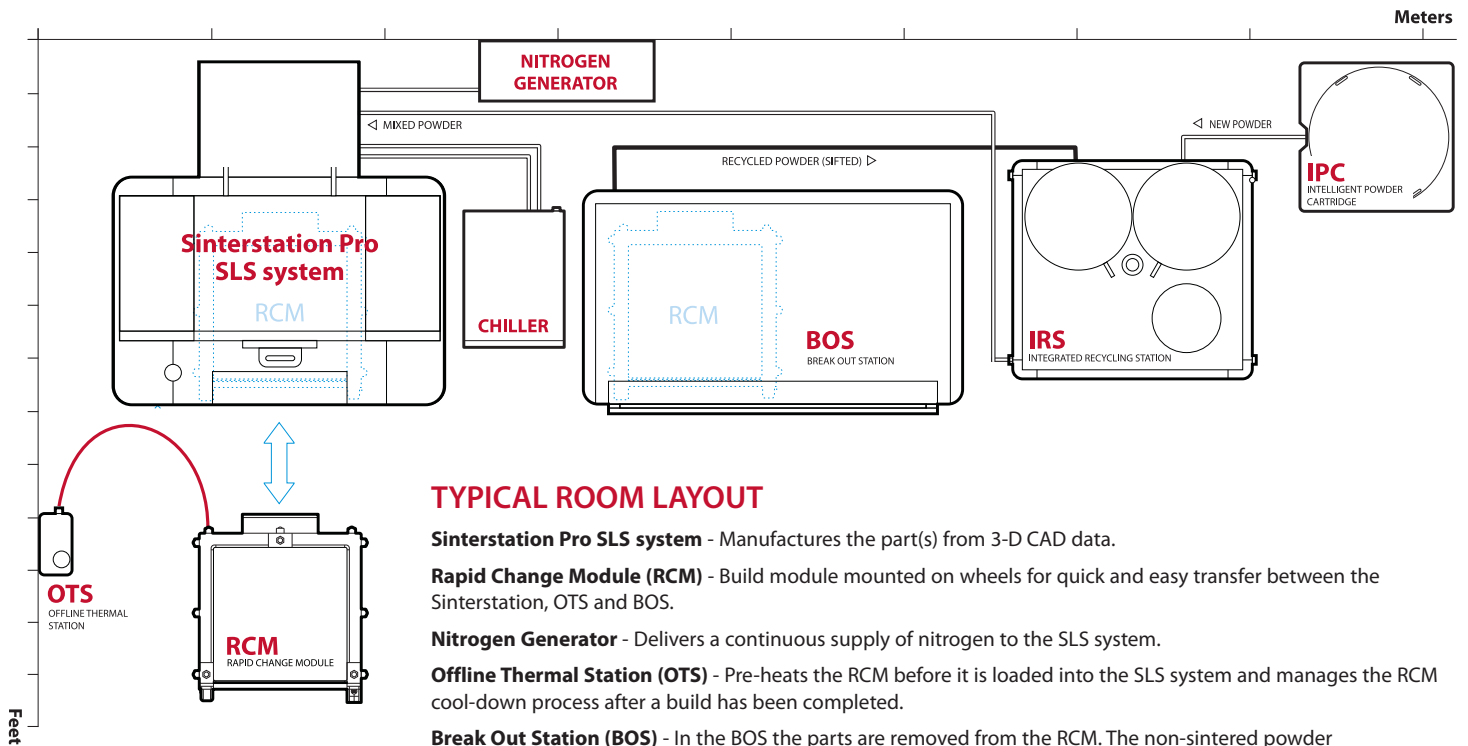
BENEFITS

- **Cost-effective.** Directly manufacture customized short production runs.
- **Productive.** Go from 3-D CAD design to finished part in one step.
- **Tool-less.** Eliminate the time and expense of tooling.
- **Design for function.** No limitation on design complexity.
- **Intelligent.** Meet demanding part specifications with advanced process control.
- **Automated.** Seamless process integration from raw material to finished part.
- **Modular.** Easily upgradeable, expandable system.
- **Superior throughput and utilization.** Virtually no time between builds for maximum part building throughput.

3D SYSTEMS CORPORATION

TRANSFORM YOUR PRODUCTS

Sinterstation® Pro SLS® system



TYPICAL ROOM LAYOUT

Sinterstation Pro SLS system - Manufactures the part(s) from 3-D CAD data.

Rapid Change Module (RCM) - Build module mounted on wheels for quick and easy transfer between the Sinterstation, OTS and BOS.

Nitrogen Generator - Delivers a continuous supply of nitrogen to the SLS system.

Offline Thermal Station (OTS) - Pre-heats the RCM before it is loaded into the SLS system and manages the RCM cool-down process after a build has been completed.

Break Out Station (BOS) - In the BOS the parts are removed from the RCM. The non-sintered powder automatically gets sifted and transferred to the IRS.

Integrated Recycling Station (IRS) - The IRS automatically mixes recycled & new powder. The mixed powder is automatically transferred to the SLS system.

Intelligent Powder Cartridge (IPC) - New powder is loaded into the IRS from a returnable powder cartridge. When the IPC is connected to the IRS, electronic material information is automatically transferred to the SLS system.

TECHNICAL DATA

All specifications are based on tests using 3D Systems' SLS systems and 3D Systems' DuraForm® series materials. For additional specifications and/or installation related information, refer to the Sinterstation Pro SLS System Facility Requirements Guide.

Process

Maximum Build Volume (XYZ)	
Sinterstation Pro 140	140 liters; 550 x 550 x 460 mm (approx. 22 x 22 x 18 in)
Sinterstation Pro 230	230 liters; 550 x 550 x 750 mm (approx. 22 x 22 x 30 in)
Layer Thickness (DuraForm PA/GF)	0.1 mm (0.004 in)
Powder Deposition Method	Counter rotating roller
Scanning System	Digital, including real-time monitoring and calibration
Scan Speed	10 m/sec. (approx. 400 in/sec)
Laser	70 watt CO ₂
Thermal Control Method	Intelligent Thermal Control including real-time monitoring and calibration

Data Input

CAD interface	STL
Network	Ethernet

Electrical

Sinterstation Pro SLS system	208 VAC 3-phase WYE, 50/60 Hz, 48 A/ph
Integrated Recycling Station	100-240 VAC 1-phase, 50/60 Hz, 3A
Break Out Station	200-240 VAC 1-phase, 50/60 Hz, 6A
Offline Thermal Station	200-240 VAC 1-phase, 50/60 Hz, 24A
Chiller	200-240 VAC 1-phase, 50/60 Hz, 13A

Software

Build Setup and Sinter (included)
SinterScan™ (optional) software provides more uniform properties in X and Y directions and improved surface finish
RealMonitor™ (optional) software provides advanced monitoring and tracking capabilities

Warranty

One-year



SYSTEMS

TRANSFORM YOUR PRODUCTS

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