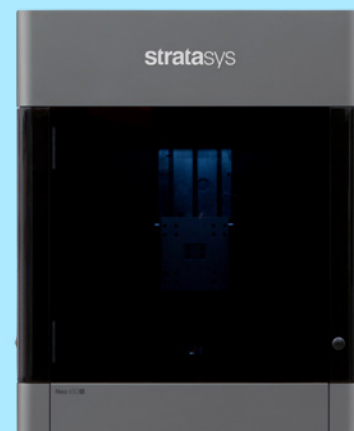




# Stratasys Neo<sup>®</sup>450s 3D Printer



## A versatile printer, with flexible options to suit multiple needs

The compact Neo450s 3D printer builds on the foundation of the proven Neo800 3D printer, providing a versatile 17.72 x 17.72 x 15.75 in. (450 x 450 x 400 mm) build platform and featuring standard and high-detail build modes.

The Neo450s 3D printer enables the production of small to medium functional prototypes, tooling, and master patterns with exceptional surface quality, accuracy, detail, and consistent repeatability.

## Why choose the Neo450s?

- **Exceptional part sidewall quality:** Outstanding scanning resolution reduces finishing time by up to 50%.
- **Compact design, versatile performance:** Print single large-sized or many smaller detailed parts on the 17.72 x 17.72 x 15.75 in. (450 x 450 x 400 mm) build volume.
- **Open resin system:** Compatible with all commercially available 355nm SLA resins, allowing the freedom of material selection.
- **Intuitive Titanium™ software:** Easy-to-use software optimizes build time and part quality with build history, parameter detail, hardware usage and part traceability data reporting.
- **Customer-driven development:** Customer suggestions and feedback are encouraged, driving user-focused software updates.
- **Accessible support:** Remote diagnostics or convenient on-site support from our exceptional service team.
- **Quality assurance:** The Neo450s 3D printer is carefully designed and engineered throughout, using premium components, parts and finishes.
- **Connected services:** Stay connected and updated with the built-in camera, emailed progress reports and status updates.

3D Printer Specifications <sup>††</sup>		Neo450s 3D Printer
Laser & Scanning System	Laser	2 Watt; 355 nm, solid-state frequency tripled Nd: YVO <sup>4</sup>
	Beam Focus	Dynamic & Variable
	Beam Size	80 to 750 µm
	Scanning Speed	Up to 400 in./s (10 m/s)
Layer Resolution		50 to 200 µm*
Minimum Feature Size		0.006 in. (0.15 mm) in X & Y <sup>†</sup> 0.016 in. (0.4 mm) in Z <sup>†</sup>
Build Modes		High Detail & Standard Detail (HD & SD)
Accuracy		Dimension <3.94 in. ±0.004 in.; Dimension >3.94 in. ±0.1% <sup>†</sup> Dimension <100 mm ±0.1 mm; Dimension >100 mm ±0.1% <sup>†</sup>
Material Compatibility		Open resin system - compatible with commercially available 355 nm stereolithography resins
Capacities	Build (XYZ)	Short: 17.72 x 17.72 x 1.97 in. (450 x 450 x 50 mm) Half: 17.72 x 17.72 x 7.87 in. (450 x 450 x 200 mm) Full: 17.72 x 17.72 x 15.75 in. (450 x 450 x 400 mm)
	Vat Fill	Short: 10 US gal (95 lb <sup>†</sup> ) [38 ltr (43kg <sup>†</sup> )] Half: 22 US gal (203 lb <sup>†</sup> ) [82 ltr (92kg <sup>†</sup> )] Full: 37 US gal (348 lb <sup>†</sup> ) [141 ltr (158 kg <sup>†</sup> )]
Software	Operating System	Windows 10 Pro
	Input File Format	SLC
	Control Software	Titanium
	Build Prep Software	GrabCAD or Materialise Magics
	Remote Editor	Titanium Assistant (Optional)



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3D Printer Specifications <sup>††</sup>		Neo450s 3D Printer
Connectivity	Ethernet	Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab
	USB Port	USB 3.1
Features & Build Options		Build validation / Build time estimator / Material usage estimator / Open build parameters enabling any material to be processed / On-the-fly parameter adjustment & part deletion / Upper surface build quality optimization / Bubble remover with automated option / Scheduled start
Advanced Services & Reporting Tools		Industry 4.0 compliant / Full part traceability / Logging of machine utilization; build history; parameters; material usage; formatted data export / System & build status email notification <sup>§</sup> / Onboard camera / Resin viscosity tracking / User level access control / Scheduled lighting
Support		1-click "snapshot" job diagnostic pack for remote support / Remote diagnostics <sup>§</sup>
Electrical Requirements	110 ~ 120 Volt, 50/60 Hz	300 W Typical operation, 550 W Max
	220 ~ 240 Volt, 50/60 Hz	700 W Typical operation, 1,300 W Max
UPS		20 – 40 mins of system up-time with intelligent UPS control <sup>**</sup>
Environmental Requirements		Temperature range: 68-74 °F (20-23 °C), max rate change ±2 °F/hr (±1 °C/hr) Relative humidity 20-50% non-condensing
Dimensions (WxDxH)		41.3 x 48.2 x 74.8 in. (1,050 x 1,225 x 1,900 mm)
Weight	Printer	1,323 lb (600 kg)
	Vat (empty)	221 lb (100 kg)
Warranty	System	12 months on-site service and support, as per Stratasys conditions of sale
Regulatory Conformity		CE UK FC ENEC

\* 100µm layer parameters are supplied for Stratasys certified materials. Parameters for alternative thicknesses may be available.

Layer thickness range is material dependant. Contact Stratasys for more details.

† Accuracy & minimum feature size will vary depending on material, parameters, part geometry and size, pre- & post-processing methods and environment.

‡ Based on typical material density 2.47 lb/0.3 gal @ 78.8 °F. (1.12kg/ltr @ 26 °C).

§ Internet connection is required for full or partial functionality.

\*\* When connected to a Stratasys Certified UPS, not sold with the Neo450s 3D printer, please contact Stratasys for further details.

†† Specification can be subject to change without prior notice.



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ISO 9001:2015  
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PRODUCT SPEC SHEET  
SLA

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