Stratasys Neo450 series 3D printers

A versatile printer, with flexible options to suit multiple needs

Reliable, productive and efficient, the Stratasys Neo®450 series is designed and engineered for industrial-grade performance. Based on the proven Neo800, the compact Neo450 series has a 17.72 × 17.72 × 15.75 in. (450 x 450 x 400 mm) platform and builds prototypes, rapid tooling and master patterns with exceptional surface quality, accuracy and detail. Designed for greater flexibility and versatility, the Neo450 series is available in two models, with different performance and functionality depending on your printing needs.

The Stratasys Neo450e is an affordable industrial-grade 3D printer producing small to medium parts with consistent accuracy and repeatability. Dependable and reliable, the Stratasys Neo450e is designed for nonstop printing of industrial production parts.

The Neo450s offers performance and versatility along with all the benefits of Neo450e. The Neo450s is up to 40% faster and offers standard and high-definition build modes, producing superior quality parts.

Why choose the Neo450?

- 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 × 17.72 × 15.75 in. (450 x 450 x 400 mm) build volume.
- Open resin system: Compatible with all commercially available 355nm SL 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 Neo450 series 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††		Neo450e	Neo450s
Laser & Scanning System	Laser	1 Watt	2 Watt
		355 nm, solid-state frequency tripled Nd: YV0⁴	355 nm, solid-state frequency tripled Nd: YV0⁴
	Beam Focus	Dynamic	Dynamic & Variable
	Beam Size	250 µm	80 to 750 µm
	Scanning Speed	Up to 400 in./s (10 m/s)	Up to 400 in./s (10 m/s)
Layer Resolution		50 to 200 µm*	50 to 200 µm*
Minimum Feature Size		0.012 in. (0.3 mm) in X & Y† / 0.016 in. (0.4mm) in Z†	0.006 in. (0.15 mm) in X & Y† / 0.016 in. (0.4 mm) in Z†
Build Modes		SD	HD & SD
Build Speed		In like-for-like comparisons, build times are up to 40% shorter with the Neo450s† ◊	
Accuracy		Dimension <3.94 in. ±0.004 in.; Dimension >3.94 in. ±0.1%† Dimension <100 mm ±0.1 mm; Dimension >100 mm ±0.1%†	
Material Compatibility		Open resin system - compatible with commercially available 355 nm stereolithography resins	
Capacities	Build (XYZ)	Short: ** 17.72 × 17.72 × 1.97 in. (450 × 450 × 50 mm) Half: ** 17.72 × 17.72 × 7.87 in. (450 × 450 × 200 mm) Full: 17.72 × 17.72 × 15.75 in. (450 × 450 × 400 mm)	
	Vat Fill	Short: 10 US gal (95 lb‡) [38 ltr (43kg‡)] Half: 22 US gal (203 lb‡) [82 ltr (92kg‡)] Full: 37 US gal (348 lb‡) [141 ltr (158 kg‡)]	
Software	Operating System	Windows 10 Pro	
	Input File Format	SLC	
	Control Software	Titanium	
	Remote Editor	Titanium Assistant (Optional)	

Stratasys Neo450 series 3D printers

3D Printer Specifications††		Neo450e	Neo450s
Connectivity	Ethernet	Fully compliant with IEE 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§ / Onboard camera / Resin viscosity tracking / User level access control / Scheduled lighting	
Support		1-click "snapshot" job diagnostic pack for remote support / Remote diagnostics§	
Electrical Requirements	110 ~ 120 Volt, 60 Hz	300 W Typical operation, 550 W Max	
	220 ~ 240 Volt, 50 Hz	700 W Typical operation, 1300 W Max	
UPS		20 ~ 40 mins of system up-time with Intelligent Control (not sold with the Neo450 series; please contact Stratasys for recommended suppliers)	
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 × 48.2 × 74.8 in. (1050 × 1225 × 1900 mm)	
Weight	Printer	1323 lb (600 kg)	
	Vat (empty)	221 lb (100 kg)	
Warranty	System	12 months on-site service and support, as per Stratasys conditions of sale	
	Laser	Replacement <400 mW after 10,000 hours or 18 months (whichever is sooner)	Replacement <800 mW after 10,000 hours or 18 months (whichever is sooner)
Regulatory Conformity		CE UKCA FC	

* 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.

◊ Based on internal testing October 2019.

** Available Q4, 2021.

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

Stratasys Headquarters

7665 Commerce Way,
Eden Prairie, MN 55344
+1 800 801 6491 (US Toll Free)
+1 952 937-3000 (Intl)
+1 952 937-0070 (Fax)

1 Holtzman St., Science Park,
PO Box 2496
Rehovot 76124, Israel
+972 74 745 4000
+972 74 745 5000 (Fax)

stratasys.com
ISO 9001:2015 Certified