

Site Preparation Guide

All Regions Excluding Europe



Neo® 450 3D Printing System



Copyright

Copyright © 2022 - 2025 Stratasys Ltd. All rights reserved.

No part of this document may be photocopied, reproduced, or translated into any human or computer language in any form, nor stored in a database or retrieval system, without prior permission in writing from Stratasys. This document may be printed for internal use only. All copies, shall contain a full copy of this copyright notice.

Liability

Stratasys shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material. Stratasys makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. It is the responsibility of the system owner/material buyer to determine that Stratasys material is safe, lawful, and technically suitable for the intended application as well as identify the proper disposal (or recycling) method consistent with local environmental regulations. Except as provided in Stratasys' standard conditions of sale, Stratasys shall not be responsible for any loss resulting from any use of its products described herein.

Trademarks

Stratasys, Neo, GrabCAD and GrabCAD Print are trademarks of Stratasys and/or subsidiaries or affiliates and may be registered in certain jurisdictions. All other product names and trademarks are the property of their respective owners.

Disclaimer

Customer acknowledges the contents of this document and that Stratasys parts, materials, and supplies are subject to its standard terms and conditions, available on <http://www.stratasys.com/legal/terms-and-conditions-of-sale>, which are incorporated herein by reference.

The specifications and/or information on which this document is based are subject to change without notice.

Contents

Revision Log	iv
Safety	iv
Safe Environment	iv
About the Neo [®] 450 Printer	1
Components.....	1
Required for Installation	1
Neo450 Highlights.....	2
How to Use This Guide	2
Site Prep Tasks.....	3
Moving System Components	3
Selecting the Site	4
Physical Specifications and Space Requirements.....	5
Environmental Requirements.....	10
Electrical Requirements	11
LAN Requirements.....	15
Health and Safety Requirements	16
Post Processing Equipment.....	17
Establishing Personas	18
Accessories.....	19
Receiving the Printer	23
Inspect Crates for Damage	23
Moving the Crated Printer	23
Preparing For Installation	24
Required Tools and Equipment.....	24
Site Preparation Checklist	24

Revision Log



Translations of this guide are updated periodically. If you are consuming a translated version, please check the English version for the latest revision and list of updates.

The following table lists the changes in each revision of this document.

Revision	Date	Description of Changes
A	September 2022	First release of this document.
B	November 2022	- Added Materialise Magics modules - Added locations of shock and tilt indicators
C	March 2023	Updated concrete floor surface statement
D	March 2023	Corrected level surface statement and added single phase to AC Power Requirements table.
E	November 2023	- Added post processing cleaning tanks information - Updated checklist statement
F	November 2024	Added GrabCAD Print related information
G	July 2025	Added silicone cross-contamination note.

Safety

The following basic safety tips are given to ensure safe installation, operation, and maintenance of Stratasys equipment and are not to be considered as comprehensive on matters of safety. Although the Neo450 printers are designed to be safe and reliable, access to areas of the printer are potentially dangerous.

Safe Environment

- Connect equipment to a grounded facility power source. Do not defeat or bypass the ground lead.
- Know the location of equipment branch circuit interrupters or circuit breakers and how to turn them on and off in case of emergency.
- Know the location of fire extinguishers and how to use them. Use only ABC type extinguishers on electrical fires.
- Know local procedures for first aid and emergency assistance at the customer facility.
- Use adequate lighting at the equipment.
- Maintain the recommended range of temperature and humidity in equipment area.
- Do not use this product in an environment containing volatile or flammable compounds.

About the Neo[®]450 Printer

The Stratasys Neo450 3D printer incorporates the latest in innovative technology to provide you with precise prototypes from a CAD design. The Neo450 3D printer is capable of building parts up to 450 x 450 x 400 mm [17.7 x 17.7 x 15.7 inches] in size, using stereo-lithography technology. The printer's open resin system allows it to be used with any commercially available resin. When paired with GrabCAD Print software, job files can be created to build parts with any resin. The Neo450 printer is controlled by PC-based Titanium machine-control software, which is accessed via a user-friendly touch-screen interface.

Carefully engineered throughout using high quality components the Neo450 produces superior part quality and is highly reliable. Proven in manufacturing environments, the Neo450 has been built by engineers for engineers.

Components

- Neo450 Printer
- Resin vat (2nd crate)
- Build trays (Qty 2)
- Assorted hardware and accessories (boxed inside printer crate)

Required for Installation

- Resin to fill vat
- GrabCAD Print or Materialise Magics for specific applications such as investment casting
- If Materialise Magics is being used, the following modules are required:
 - Materialise Magics RP (Base module)
 - Materialise Magics RP Slicing (Slicer module)
 - Materialise Magics RP SG (Can be bundled free with e-Stage)
 - Materialise Magics e-Stage (Essential for new users, recommended)
- Titanium Assistant software (Recommended)
- UV Curing oven
- Post processing station for cleaning parts and platforms

Neo450 Highlights

- Maximum build volume (W x D x H): 450 x 450 x 400 mm [17.7 x 17.7 x 15.7 inches]
- Open resin system with 10 pre-qualified materials
- Built for production
- Stratasys infrastructure
- Multiple vat fill configurations (Full, Half, Short)
- Minimum feature size X/Y
 - Neo450e: 0.30 mm (0.012 inch)
 - Neo450s: 0.15 mm (0.006 inch)
- Minimum feature size Z: 0.4mm (0.016 inch)
- Touchscreen graphical user interface

How to Use This Guide

This guide provides information for selecting an appropriate location for the Neo450 printer. This guide also provides instructions for unpacking and preliminary set-up. Information of particular importance is presented in one of three formats:



A **Warning:** indicates a procedure that may cause injury to an operator if the procedure is not followed.

A **Warning:** will precede the paragraph of instruction to which it relates.



A **Caution:** indicates a procedure that may cause damage to equipment if the procedure is not followed.

A **Caution:** will precede the paragraph of instruction to which it relates.



A **NOTE** is used to highlight a specific point or to provide an operational tip. While useful, a NOTE does not indicate a procedure that can cause injury or damage if it is not followed.

A **NOTE** will follow the paragraph of instruction to which it relates.

Site Prep Tasks

Moving System Components

The Neo450 printer, vat and accessories are designed to be moved with a low-profile pallet jack. A low-profile pallet jack is therefore necessary for installation, and throughout ownership.

Table 1: Pallet Truck Requirements

Capacity	≥ 1200 kg	≥ 2646 lbs
Minimum Fork Height	50 ~ 60 mm	2.0 ~ 2.4 in
Maximum Fork Height	≥ 150 mm	≥ 5.9 in
Fork Width	160 mm	6.3 in
Width Across Forks	540 mm	21.3 in
Fork Length	≥ 1100 mm	≥ 43.3 in

Table 2: Shipping Weights and Sizes

Crated Component	Weight	Dimensions (LxWxH)
Neo450e Printer	800 kg (1764 lbs)	122 cm x 140 cm x 220 cm (48.0 in x 55.1 in x 86.6 in)
Neo450s Printer	800 kg (1764 lbs)	122 cm x 140 cm x 220 cm (48.0 in x 55.1 in x 86.6 in)
Neo450 Short Vat	85 kg (187 lbs)	99 cm x 89 cm x 99 cm (39.0 in x 35.0 in x 39.0 in)
Neo450 Half Vat	162 kg (357 lbs)	99 cm x 89 cm x 99 cm (39.0 in x 35.0 in x 39.0 in)
Neo450 Full Vat	161 kg (355 lbs)	99 cm x 89 cm x 99 cm (39.0 in x 35.0 in x 39.0 in)
UV800 Post Cure Device	464 kg (1022 lbs)	137 cm x 137 cm x 212 cm (53.9 in x 53.9 in x 83.5 in)

Selecting the Site



The Neo450 printer does not have casters. Due to the size of the printer, a forklift is required to move the crated system to an un-boxing location and to the final selected installation site.

Decide where to install the printer based on the following:

1. Floor Surface



The Neo450 printer is a precision mechanical and optical system that is sensitive to vibration. The floor location and surface must meet the following requirements:

- ground floor location
- not near to heavy machinery or sources of vibration
- stable single concrete slab floor with no vinyl, epoxy or similar floor covering that may compress over time
- avoiding bridging above seams or expansion joints
- level surface ≤ 4 mm/m (≤ 0.144 in/3 ft) extending outside the printer footprint, free of any bumps or dips obstructing movement of the vat or trolley.
- Consider floor loading. See [Figure 2 \(page 7\)](#).

2. Area Above the Printer



The area directly above the printer must be free of reflective surfaces. During installation and servicing of the system there may be times when the laser is emitting with the roof covers removed. Emissions from the laser must not be able to reflect away from the system.

3. Space Requirements: See [“Physical Specifications and Space Requirements” \(page 5\)](#).
4. Environmental Requirements: See [“Environmental Requirements” \(page 10\)](#).
5. Electrical Requirements: See [“Electrical Requirements” \(page 11\)](#).
6. LAN Requirements: See [“LAN Requirements” \(page 15\)](#).
7. Safety Requirements: See [“Health and Safety Requirements” \(page 16\)](#).

Physical Specifications and Space Requirements

Dimensions and Weights

Make sure that the installation site floor space can accommodate the printer's weight and dimensions, plus required clearances. Use the dimensions shown below to determine required sizes for doorways through which the printer may be transported. The suggested minimum doorway size is 2300mm x 1400mm [90.6 inches x 55.1 inches] (plus lift height). Also consider the need for the unit to be raised onto a fork-lift or pallet jack when being moved.

Table 3: Printer dimensions and weights

Printer Status	Dimensions	Weight
Uncrated, with closed panels and touchscreen	Width: 1046 mm (41.2 inches) Depth: 1225 mm (48.2 inches) Height: 1900 mm (74.8 inches)	600 kg (1323 lbs) without vat

Figure 1: Neo450 Printer Dimensions and Center of Mass

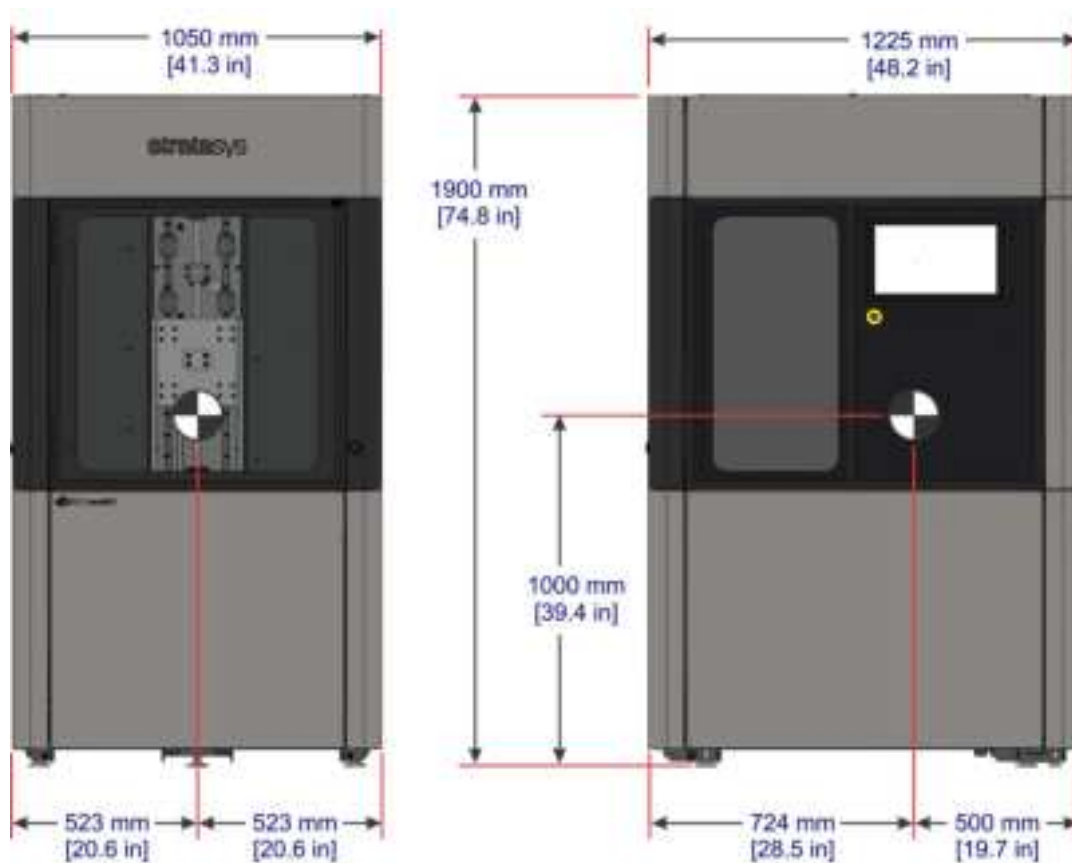


Table 4: Neo450 Vat Weights and Dimensions

	Short	Half (Versions 1 and 2)	Full
Build Volume (X x Y x Z)	450 x 450 x 50 mm 17.72 x 17.72 x 1.97 in	450 x 450 x 200 mm 17.72 x 17.72 x 7.87 in	450 x 450 x 400 mm 17.72 x 17.72 x 15.75 in
External Dimensions (W x D x H)		710 x 800 x 730 mm 28.0 x 31.5 x 28.7 in	
Net Weight		100 kg [221 lb]	
Gross Weight @1.12 kg/ltr^a	143 kg [315 lb]	192 kg [423 lb]	258 kg [569 lb]
Gross Weight @1.17 kg/ltr^a	145 kg [320 lb]	196 kg [432 lb]	265 kg [584 lb]
Gross Weight @1.61 kg/ltr^a	161 kg [355 lb]	232 kg [511 lb]	327 kg [721 lb]

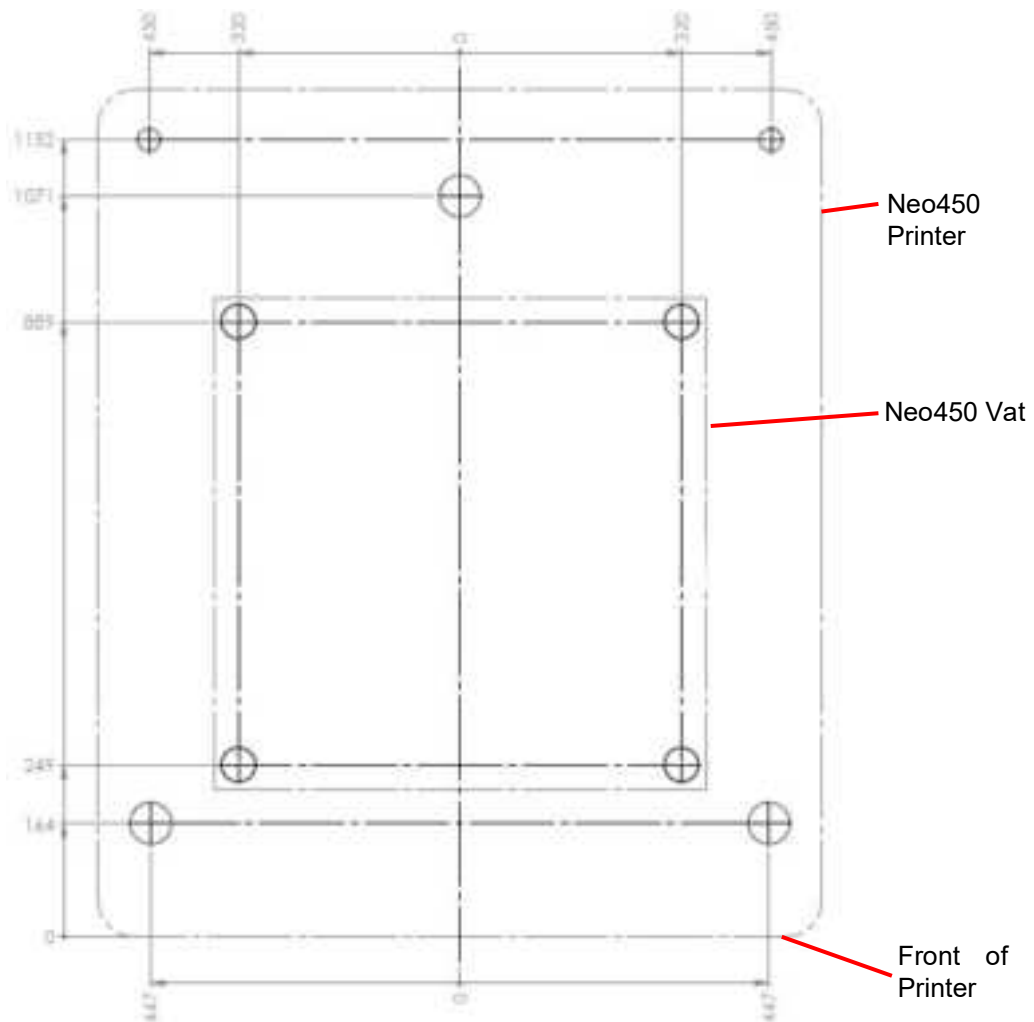
a. Material density based on a temperature of 26° C (78.8° F)

Table 5: Neo450 Vat Fill Capacities

	Short	Half	Full
Material Fill Volume	38 ltr [10 US Gal]	82 ltr [22 US Gal]	141 ltr [37 US Gal]
Material Fill Weight @1.12 kg/ltr^a	43 kg [95 lb]	92 kg [203 lb]	158 kg [348 lb]
Material Fill Weight @1.17 kg/ltr^a	45 kg [99 lb]	96 kg [212lb]	165 kg [364 lb]
Material Fill Weight @1.61 kg/ltr^a	61 kg [134 lb]	132 kg [291 lb]	227 kg [500 lb]

a. Material density based on a temperature of 26° C (78.8° F)

Figure 2: Neo450 and Vat Weight Distribution



NEO450 MACHINE WEIGHT DISTRIBUTION	
FOOT No.	LOAD (Kg)
1	115
2	115
3	340
4	15
5	15
TOTAL	600

NEO450 VAT (100Kg) WITH RESIN WEIGHT DISTRIBUTION			
CAPACITY (Ltr)	LOAD PER FOOT 6-9 (Kg) (TOTAL)		
	1.12 (Kg/Ltr)	1.17 (Kg/Ltr)	1.61 (Kg/Ltr)
141 (FULL)	65 (260)	66 (264)	81 (324)
82 (HALF)	48 (192)	49 (196)	58 (232)
38 (SHORT)	36 (144)	36 (144)	40 (160)
NEO450 MACHINE & VAT TOTAL WEIGHT (Kg)			
FULL	860	864	924
HALF	792	796	832
SHORT	744	744	760

Minimum Space Requirements

Sufficient rear clearance allows for maintenance and access to the electronics bay, while sufficient clearance on all sides and top allows for enough space to fully open doors and covers. Additional space in the front is recommended to allow for easy positioning of the offload trolley and resin vat.

Table 6: Printer size and clearances

Actual Printer Footprint Size	1046 mm x 1225 mm [41.2 inches x 48.2 inches]
Recommended Clearance Width	2800 mm [110.2 inches]
Recommended Clearance Depth	3300 mm [129.9 inches]
Required Clearance Height	2500 mm [98.43 inches]

Figure 3: Recommended Clearance (Top Detail)

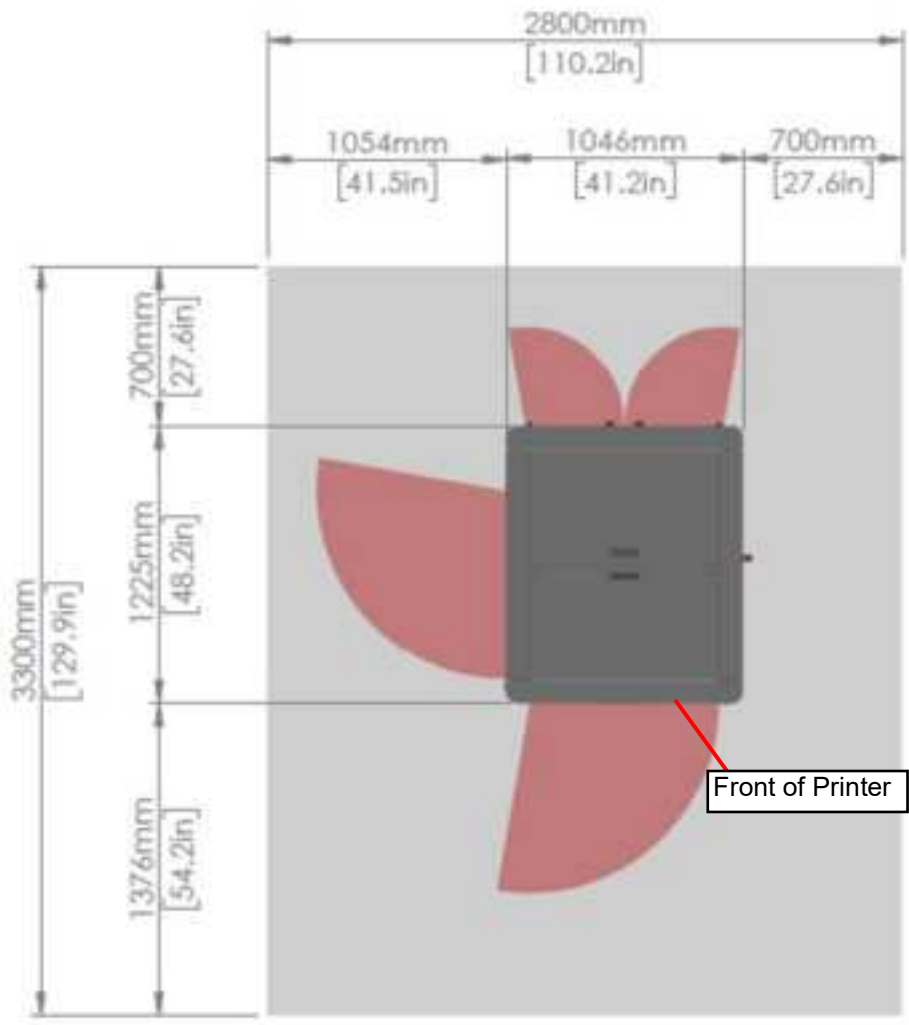
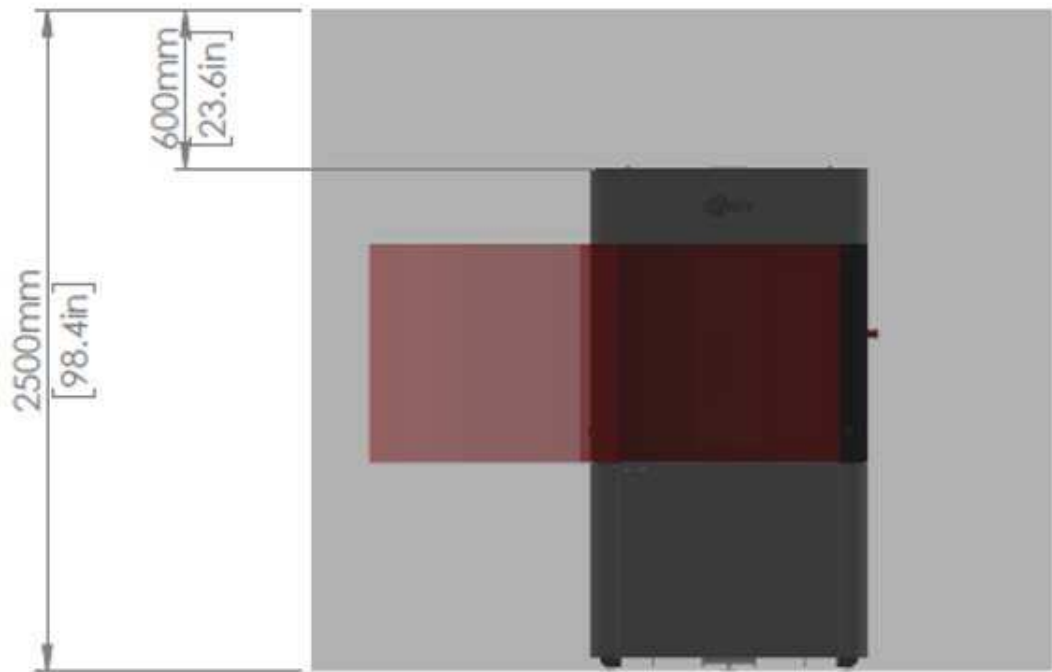


Figure 4: Minimum Clearance (Height)



The minimum clearance must be met in order to install the Neo450 printer. No installation should proceed without verification of the minimum clearance.



Environmental Requirements

Table 7: Environmental requirements

Operating Temperature Range	20 ~ 23°C [68 ~ 74°F]
Temperature Maximum Rate of Change	±1°C/hr [±2°F/hr]
Non-Condensing Relative Humidity	20% ~ 50%
Environment Pollution	Degree 2
Maximum Working Altitude	2000 m [6562 ft]
Heat Dissipation Max (110 ~ 120 VAC)	550w 1900 btu/hr
Heat Dissipation, Typical (110 ~ 120 VAC)	300w 1050 btu/hr
Heat Dissipation Max (220 ~ 240 VAC)	1300w 4450 btu/hr
Heat Dissipation, Typical (220 ~ 240 VAC)	700w 2400 btu/hr



Caution:

Variances outside the requirement parameters listed below will adversely affect part quality and/or accuracy.



Additional required Neo450 environmental setup considerations include:

- The Neo450 printer is for indoor use only.
- System storage temperature shall be in the range of 32°F to 95°F (0°C to 35°C), with relative humidity range of 20% to 50% non-condensing.
- Material storage shall be in the range of 55°F to 86°F (13°C to 30°C), with relative humidity less than 70%.
- Some resins will require lower humidity ranges to operate correctly.
- Air quality conditions with excessive solid particulates (conductive or non-conductive) may result in system damage.
- Air quality conditions in which airborne oils are allowed to accumulate on or within the printer can damage the plastic components.
- Additional air conditioning capacity would be required to remove heat dissipated by any other equipment in the same area.
- Neo450 printers must not be exposed to direct air flow from the air conditioning or heating systems. Part quality will be adversely affected if air flow is directed at the Neo450.
- The area must be well ventilated. In accordance with standard practices, the air in the room should change approximately 2 to 5 times per hour.
- The Neo450 must be placed in a clean, non-smoking environment. Dust and smoke must be kept at a minimum, as they may contaminate the resin and cause deterioration of the optical surfaces.
- Avoid locating the Neo450 near significant UV source e.g. window.



Important:

Part finishing and cleaning equipment must not be in the same room as the Neo450 printer.

Electrical Requirements

AC Power Requirements

Table 8: AC power requirements

Rated Voltage	110 ~ 120 VAC $\pm$ 10%	220 ~ 240 VAC $\pm$ 10%
	60 Hz	50 Hz
	Single Phase	Single Phase
Over Voltage Category	II	II
Fuse (Power Outlet)	10 A	10 A
Short Circuit Rating	1000 A	1000 A
Peak Power	550 W	1300 W
Peak Current	4.6 A	5.4 A
Typical Power	300 W	700 W
Typical Current	2.4 A	2.8 A
Power Rating	750 VA	1500 VA

Warning: Electrical Hazard



- Equipment installed in all regions except Europe must be connected to a dedicated 4 mm² ground/earth. This is in addition to a ground/earth connection within the supply socket.
- Connection should be made in accordance with local authority regulations.
- In some regions an AC/AC transformer will be required to meet the specified input voltage. Using the specification above, Stratasys recommends the transformer is sourced locally, ensuring it meets local regulations.
- Stratasys recommends that the Neo450 is supplied on a dedicated, surge protected circuit.
- Stratasys recommends that all electrical supply work is undertaken by a qualified electrician.



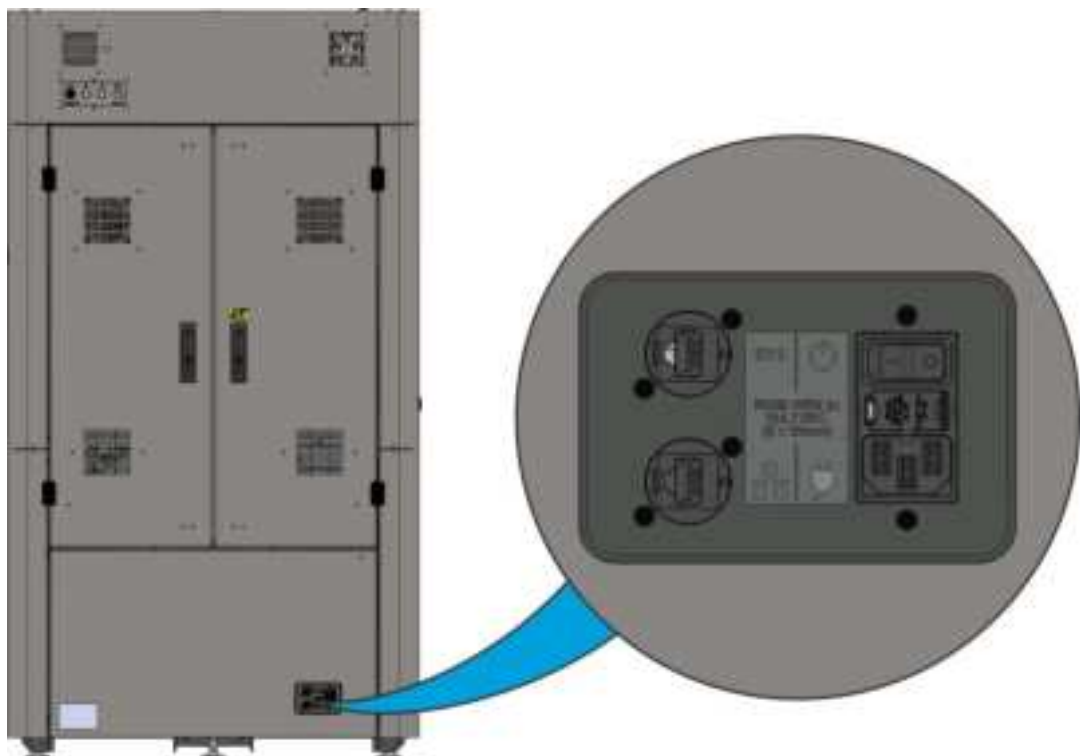
Caution:

Do not use an extension cord or power strip; doing so can result in intermittent power issues. Connect the power cord directly into the receptacle or UPS.



Stratasys recommends that power is routed to the machine from above.

Figure 5: Neo450 LAN and Power Input Location



Stratasys Certified UPS for Neo450

A “Certified UPS” has been tested for communication compatibility with the Neo450 printer. Alternative UPS brands and models may be compatible if they offer serial communication using the SHUT Protocol.

Table 9: Neo450 Certified UPS

	110 ~ 120 VAC	220 ~ 240 VAC
Europe, Israel, South Korea, Russia	N/A	Eaton 5P1550i
USA, Canada	Eaton 5P1500	N/A

Supplying power to a Neo450 printer via a suitable UPS offers two main advantages:

- Maintaining operation during a short power outage
- Additional power supply quality protection



For the highest system functionality and protection, Stratasys recommends that the Neo450 is supplied power via a Stratasys certified UPS.

When connected to a Stratasys certified UPS, the printer will benefit intelligent UPS control functionality. Intelligent UPS control also offers the following additional advantages:

- Controlled shutdown

Uncontrolled system shutdowns pose a risk of damage to electronic components. In the event of a power outage, the remaining up-time is monitored and the system will initiate a controlled shut down before the UPS is unable to maintain supply.

- Minimal UPS capacity requirement

In the event of a power outage non-critical vat heating is suspended to minimise the UPS capacity specification requirement.

- Ensures build restart

Titanium is often able to recover and restart a build following an uncontrolled shut down, however this is not guaranteed due to the nature of the event. A controlled shut down ensures a build restart is possible when the power is resumed.

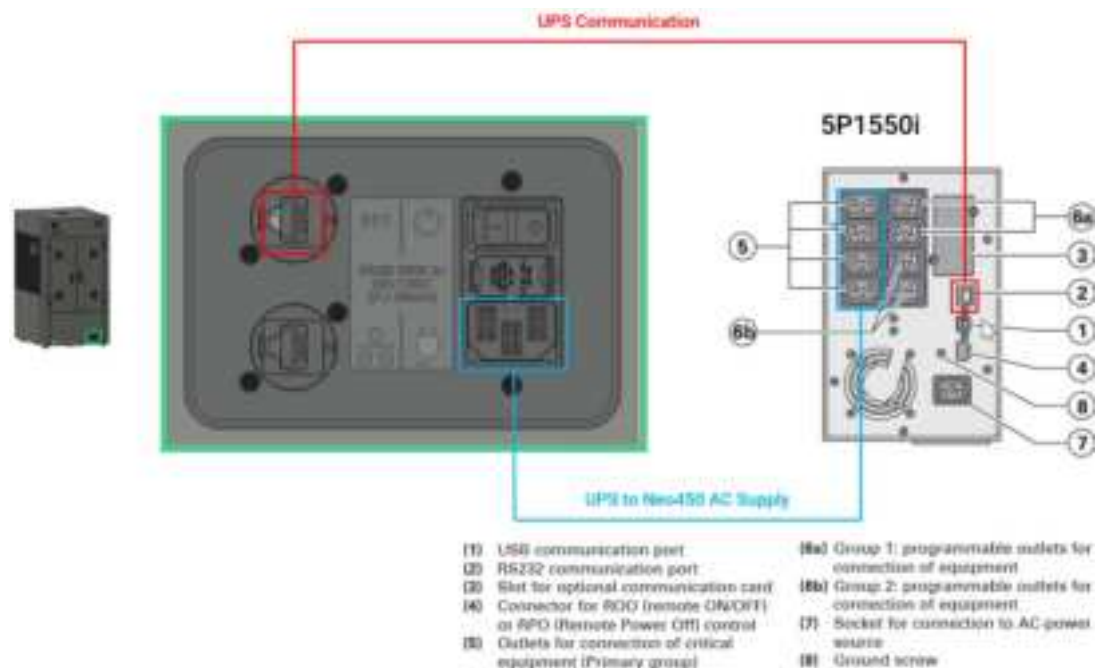
- UPS status monitoring

The UPS is continuously monitored by Titanium. UPS faults and health status are reported in Titanium.

Connecting to a Certified UPS

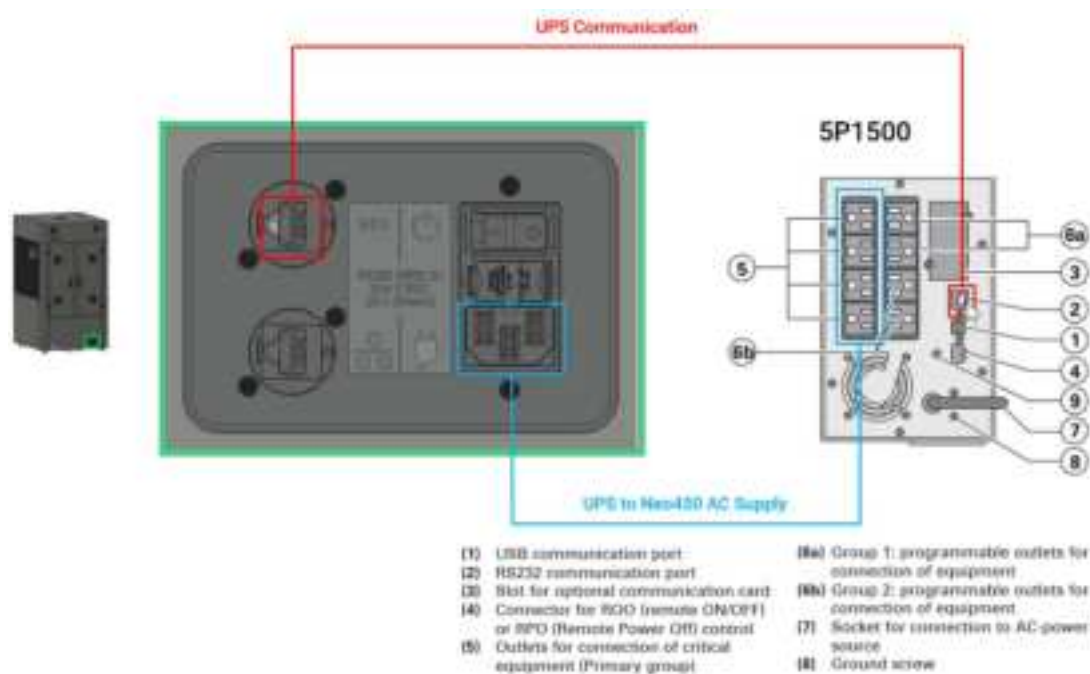
All necessary cables and connectors are supplied with the Neo450.

Figure 6: Eaton 5P1550i (Europe)



- Communication Cable: 5m Cat 5e
- AC Supply: 5m European AC Supply Cable with IEC Plug E Connector

Figure 7: Eaton 5P1500 (USA and Canada)



- Communication Cable: 5m Cat 5e
- AC Supply: 5m USA and Canada AC Supply Cable

Installing Virus Protection Software



Please contact a Stratasys service representative before installing third party software. Installing virus protection software without the correct modification to settings, will typically result in a non-operational machine.

There are numerous virus protection software vendors. Virus protection software differs in design and operation, it is therefore not possible for Stratasys to validate each vendor and subsequent software releases. It is strongly recommended installation of any third party software is discussed with a Stratasys service representative prior to installation.

LAN Requirements

The Neo450 is equipped with an on-board ethernet switch. The switch links the application PC and on-board camera to the LAN port at rear of machine. Where possible, the Neo450 printer should be connected with a wired LAN connection. Upon connection to a LAN, the Neo450 PC can be connected by the network administrator.



Windows has been configured for reliable Neo operation. Modification of the Windows configuration should be avoided.

No modification to windows configuration should be made, locally or via group policies, to the following:

- Power and Screen Options
- Fast Start-up
- Windows Updates

A network connection will be required for certain functions, including but not limited to:

- Remote diagnosis
- Remote monitoring
- Webcam access
- Process update and system alert email facility

The Neo450 requires 2 standard LAN network connections, one for the Neo computer and one for the Webcam. It is recommended that a fixed IP address is assigned for each of these components to aid machine installation and prevent IP conflicts.

The Neo450 conforms to the following standards:

- IEE 802.3
- IEEE 802.3u
- IEEE 802.3ab

Health and Safety Requirements

During normal operation, and with all panels installed, the Neo450 is a Class I laser product to BS EN 60825-1:2014. Class I products are not considered harmful and require no special safety precautions under normal operating conditions. However, the Neo450 should be installed in an area that can be protected from casual visitors, particularly during servicing and maintenance of the machine.

Resin Usage

Stereolithography resins are classified as hazardous materials and must be used with appropriate health and safety requirements being followed. Poisoning, breathing difficulties and contamination are some associated risks. The multi-functional acrylates used in each resin are also known skin sensitizers. Sensitization can occur after one exposure or after years of exposure. Sensitization symptoms can be Skin rash, hives, burning sensation and itching. In severe cases, eye and mucosal membrane irritation and respiratory problems may occur.

Ensure that the following control measures are adhered to:

- Read the manufacturers data sheet to understand risks, exposure controls, etc. for the material in use.
- First aid and eye-wash stations must be easily accessible.
- Do not touch the material with your bare skin.
- Use appropriate PPE (safety glasses, gloves, coats, sleeves).
- Do not wear resin-contaminated gloves to open doors, drawers, etc.
- Use the gloves recommended by the supplier's Safety Data Sheet (SDS).

Resin and Cleaning Solution Disposal

Fully cured UV materials ordinarily present no safety or health related disposal hazards. Partially or uncured UV material waste may be classified as hazardous in some areas. The packaging, transportation and disposal methods which are used must prevent any form of human contact with the waste.

Cleaning solutions (containing UV-curable material) should be isolated in a sealed, marked container and disposed of as "Hazardous Waste" in accordance with all applicable local laws and regulations. Clean-up materials, soiled clothing, empty containers, etc., should be disposed of in accordance with the preceding guidelines. Generally, non-solvent containing UV-curable materials may be disposed of as non-hazardous waste. Contact a reputable waste hauler for a complete analysis and classification of all waste streams.

Ensure that the following control measures are adhered to:

- Empty plastic bottles must be drained of all resin material, cured thoroughly and disposed of as solid waste.
- Discard contaminated solvents by isolating them in a sealed container and disposing them as solid waste in accordance with local legislation.
- Hazardous waste containers must be sent to a qualified hazardous waste handler.

Post Processing Equipment

Post processing equipment is required to clean the build platform and parts built on the printer. This equipment must be in place when the printer is installed to clean calibration builds.

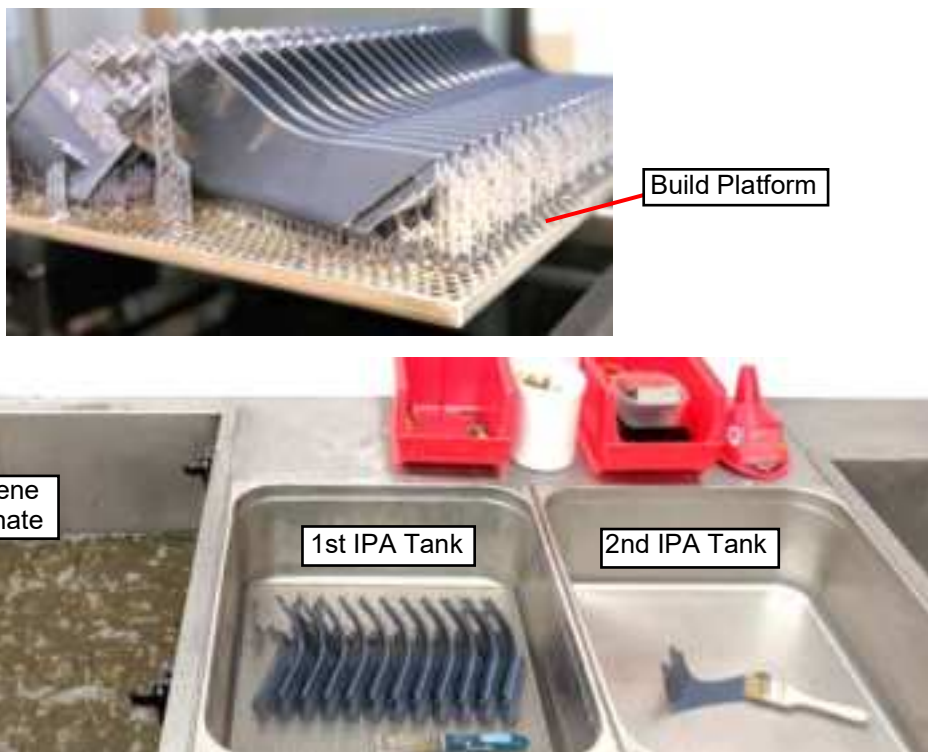
- Parts must be washed of any residual resin sticking to the surface. If excess material is not washed off before the part is cured, part features will be affected.
- Washing can be performed manually (cleaning solvent and paintbrush) or via semi-automated 3rd party solutions.
- Cleaning solvents may include Propylene Carbonate, IPA, or TPM with water to rinse off the solvent where required. The solvents should be replaced before they become saturated with waste material.
- Build platforms must be washed of residual resin and of cleaning solvents before being reintroduced into the printer.
- The post processing equipment should be large enough to contain the build platform 814 x 814 mm x 40mm
- Post processing equipment used to clean the platform should not be shared with other technologies, especially those using silicone products, to avoid cross-contamination.



Caution: Cross-Contamination of Resin

Trace amounts of silicone contamination can severely compromise the integrity of the resin, potentially leading to critical failure in performance or curing.

Figure 8: Build Platform and Post Processing Tanks



Establishing Personas

Depending on the size of organization, it may be beneficial to separate the workload of operating a Neo system across 2 individual personas. This allows each persona to specialize their training for greater success and operational efficiency. The recommended personas are as follows:

- **Programmer** - Focusing on part and build preparation, the primary focus of this persona is creating builds using best practices for SL technology to create accurate, repeatable and reliable builds.
- **Operator** - This role focuses on machine operations such as build removal, preparing the system to build and part clean-up. This role specializes in machine reliability, part quality and material maintenance.

Accessories

UV800 Post Cure Device

A post cure device is required to fully cure the parts built on the printer. The UV800 is a post processing station used to UV cure parts and store parts and resin in a temperature controlled environment. For heat management purposes, the UV800 can be coupled to a facility extraction system.

Table 10: UV800 Weight and Dimensions

Dimensions (W x D x H)	1250 x 1250 x 1896 mm 49.2 x 49.2 x 74.7 in
Weight	300 kg [661 lb]

Figure 9: UV800 Detail



Table 11: UV800 Electrical Specifications

Rated Voltage	220 ~ 240±10% VAC 50/60 Hz
Over Voltage Category	II
Fuse (Power Outlet)	10.0 A
Short Circuit Rating	1000 A
Peak Power	1450 W
Peak Current	6.5 A
Typical Power	950 W
Typical Current	4.0 A
Power Rating	1700 VA



Connection should be made in accordance with local authority regulations.



In some regions an AC/AC transformer will be required to meet the specified input voltage. Using the specification above, Stratasys recommends the transformer is sourced locally, ensuring it meets local regulations.



Stratasys recommends that all electrical supply work is undertaken by a qualified electrician.

Table 12: UV800 Environmental Requirements

Temperature Range	17 ~ 25°C 62 ~ 77°F
Non-Condensing Relative Humidity	20 ~ 50%
Environment Pollution	Degree 2
Maximum Working Altitude	2000 m 6562 Ft
Heat Dissipation	950 W 3250 Btu/h

UV800 Ventilation

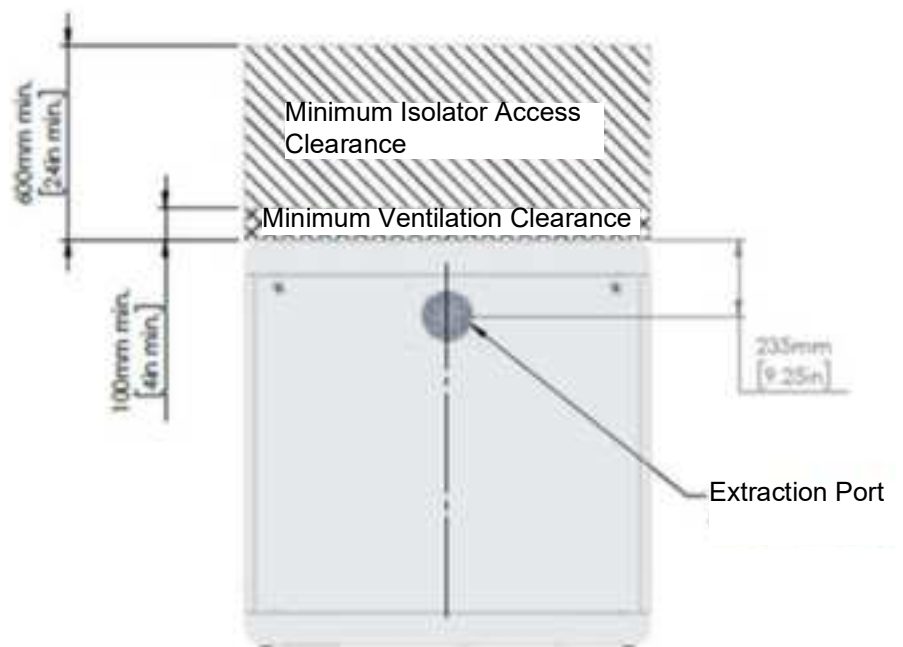


Always ensure that at least 100 mm (4 in) of clearance exists at the rear of the UV800.



Do not obstruct airflow from the heat/exhaust extraction port.

Figure 10: UV800 Clearance (Top View Shown)



UV800 Extraction

The UV800 does not require extraction for safe operation. For heat management purposes, the UV800 is supplied with a Ø150 mm extraction port (with 4 M4x10 mm supplied fixing screws) which can be attached to enable coupling to a facility extraction system.



Attachment to an extraction system must be performed by an extraction specialist.



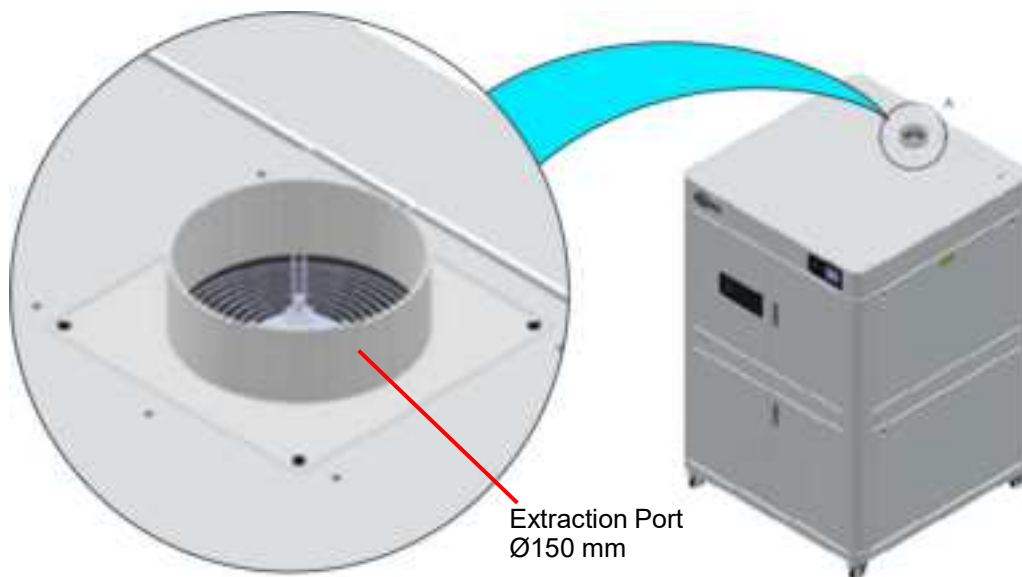
When attachment is made the airflow rate must be regulated to 6.3~6.6 m³/min.



When the UV chamber is in operation, active extraction must be ensured.

Stratasys will not bear responsibility, or costs of damage to the UV800 and/or contents resulting from an incorrectly performing or operating extraction system.

Figure 11: Extraction Port Detail A



Receiving the Printer

The components of the Neo450 printer are shipped in two separate crates. The larger crate contains the Neo450 printer and the smaller crate contains the resin vat with assorted components required for installation and set-up.

Inspect Crates for Damage

Before opening the shipping crates, inspect the crates for signs of exterior damage.



Always report any evidence of excessive damage to Stratasys and the shipping company.

Moving the Crated Printer

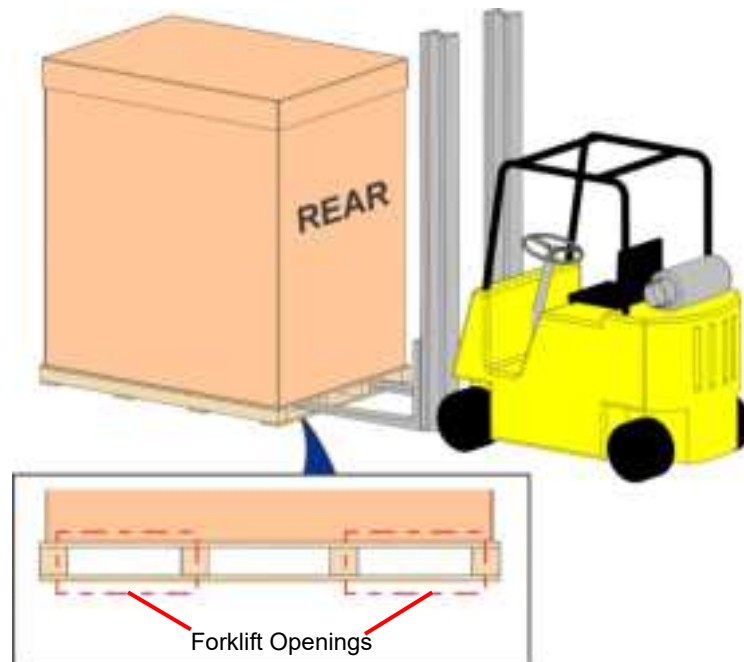


Warning:

The crated printer weighs 860 kg (1896 lbs.). Make sure that equipment and personnel are capable of moving the system.

The Neo450 shipping crate is designed to be lifted and moved by forklift from designated locations on the shipping base ([Figure 12](#)). The crate is heavier towards the rear of the printer, so it should always be lifted and moved from the rear side, as marked on the crate panel. Move the crate to a flat, open area with at least 1780mm (70 inches) of clearance on all sides.

Figure 12: Moving the Shipping Crate



Preparing For Installation

Required Tools and Equipment



Arrival of all required items for installation (resin, system and finishing equipment) must be on site and verified a minimum of 3 days before installation.

- 2 people (qualified movers) minimum
- Powered screwdriver or drills (qty 2) with: Phillips bit
- Ladders or scaffolds (qty 2) with minimum 6 feet height capability and 250 lbs weight capacity
- Cutting pliers or knife (to cut zip ties)
- A forklift to lift the Neo450 from the rear.
- Low-level pallet jack for moving the Neo450 after it has been unloaded from the crate.
- 19 mm wrench
- 13 mm wrench

Site Preparation Checklist

A checklist is provided by your Stratasys representative listing all of the tasks described in this document. Fill in the information requested in the checklist, and submit it to your Stratasys representative. Once the checklist has been received, an installation date will be scheduled.

www.stratasys.com

c-support@stratasys.com

Copyright © 2022 - 2025 Stratasys Ltd. All rights reserved.
DOC-60005 Rev. G

