Product Guide

TrueDent™ Cure
Curing Chamber

stratasys
TrueDent™ Cure

Copyright

© Copyright 2022-2024 Stratasys. All rights reserved.

This documentation contains proprietary information of Stratasys Ltd. This information is supplied solely to assist authorized users of this cleaning system. No part of this document may be used for other purposes, and it may not be disclosed to other parties.

The specifications on which this document is based are subject to change without notice.

No part of this book may be reproduced in any form or by any means, nor stored in a database or retrieval system, without prior permission in writing from Stratasys Ltd.

If this document is distributed as a PDF file, you may print it for internal use.

DOC-09141 Rev. E

Trademark

Stratasys, Stratasys logo, Objet, PolyJet, and TrueDent Cure are trademarks of Stratasys Ltd. and/or its subsidiaries or affiliates and may be registered in certain jurisdictions.

All names of product names and trademarks are the property of their respective owners.

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.

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 https://www.stratasys.com/legal/terms-and-conditions-of-sale, which are incorporated herein by reference.

Stratasys Ltd.

www.stratasys.com

Comments: c-support@stratasys.com

Contents

Overview

TrueDent Cure is a curing chamber. It uses LED light and heat to provide an ideal environment suitable for curing 3D PolyJet printed parts.

Warranty

TrueDent Cure has a limited one-year warranty (or greater when required by local law) that covers everything except the LED lamps, which are considered consumable items. Details on the warranty can be found in the legal section of the Stratasys website:

https://www.stratasys.com/legal/system-warranty-period

https://www.stratasys.com/legal/terms-and-conditions-of-sale

Compliance

This product is FCC compliant.

Safety

Read these important safety guidelines before using this product.

- This product is intended for curing 3D printed parts. Do not use this product for any other purpose as the safety of the product cannot be ensured.

- Do not put flammable liquids in the chamber. Allow any solvents on the printed parts to completely evaporate before placing them in the chamber.
  Flammable fluids in the chamber create a risk of fire and/or explosion.

- Do not place items on or around this product to maintain unblocked airflow. Keep flammable liquids away from this product. Do not put liquids on top of the product, as a spill could create a risk of electric shock.

- Do not look at the lamps without appropriate eye protection. This product is equipped with a safety interlock that turns off the lamps when the door is opened.

- The door handle reaches to approximately 60°C / 140ºF during operation. Wear heat-resistant gloves when opening the door.

- Should this product malfunction in any way, immediately unplug it and contact your regional service provider. Do not continue to operate a malfunctioning unit, as damage or even injury may occur.

- If you have any questions about the setup, use, or care of this product, please contact your regional service provider.

Hazardous Situations During Use

Symbols	Meaning and Actions
	Danger of Hot Surfaces! During operation, the surfaces of the printer become hot and can cause burns or discomfort when directly touched. Exercise care when performing maintenance on or near hot printer surfaces. If hot surfaces are to be accessed, or work near hot surfaces is required, the following personal protective equipment must be used:
	Wear Heat-Resistant Protective Gloves Wear heat-resistant protective gloves where it is necessary to handle hot items or surfaces.

Specifications

Power Input for 115V, 5A unit	110–120V including tolerances
Power Input for 230V, 2.5A unit	220–240V including tolerances
Frequency	50 / 60 Hz
Ambient Temperature	10–30ºC / 50–86ºF
Heat-up Time to Maximum Temperature	30–45 minutes
Relative Humidity	30–70% (non-condensing)
LED Output	7.5 Watts per lamp (x 4)
LED Wavelength (Typ)	450–460 nm per lamp (x 4)
Unit Size	30.5 x 30.5 x 26 cm / 12 x 12 x 10.25 in.
Chamber Size	30.5 x 30.5 x 16 cm / 12 x 12 x 6.25 in.
Unit Weight	10 kg / 22 lbs
Shipping Size	41 x 41 x 36 cm / 16 x 16 x 14 in.
Shipping Weight	11.4 kg / 25 lbs

Unpacking

> **ℹ** · Open the packaging carefully and store it for future use. Original packaging is required should this product need warranty repair or replacement.
> · This product is shipped in two boxes, a box within a box, to ensure it arrives undamaged. It is recommended to unpack with 2 people.

1. Open the top flaps of the outer box.
2. Remove the foam corner protectors, and keep them for future use.
3. Remove the power cord from the box.

> **ℹ** Verify that the plug is suitable for your location. If not, purchase a cable locally.

4. Remove the inner box.
5. Open the inner box top flaps.
6. Remove, read, and keep the *Important* insert for reference.
7. Remove the product from the inner box.
8. Remove the product from the protective bag. Hold the door to prevent it from opening while removing the product from the box.
9. Place the product on a stable work surface.
10. Slide the plastic shipping supports out from under each of the LED lamps.

Figure 1: LED lamp shipping support

11. Return packaging materials to the outer box and store them for future use, if necessary.

Setup

1. Verify that the power switch is in the off (0) position.
2. Insert the power cord into the power inlet at the back of the unit.
3. Plug the power cord into a power outlet.

Operation

Switch on (I) the power switch on the back panel. The power switch has a red light when on, and the display screen turns on.
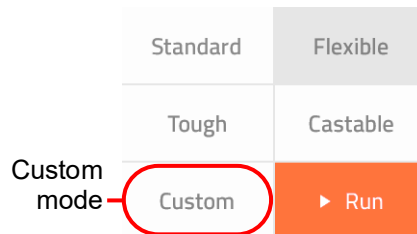
Operation Modes

This product has the following operation modes:

- Preset modes - not used for PolyJet materials.
- Custom mode - used for parts printed with PolyJet printers.

To cure the parts:

1. Prepare the parts as described in the *TrueDent Best Practice* document, available on the Stratasys Support Center.
2. Place the container(s) with the parts in the chamber.
3. Close the door.
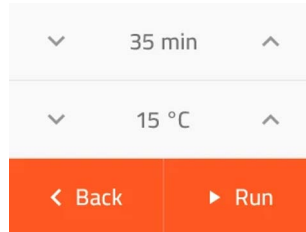4. Select **Custom** from the menu on the display.

<p style="text-align:center;color:#29ABE2;">Figure 2: Operation modes</p>

Standard	Flexible
Tough	Castable
Custom	▶ Run

Custom mode — Custom

5. On the custom setting screen, use the up and down arrows to set the time and temperature according to the *TrueDent Best Practice* document.

Tap and hold the arrows to move quickly through the ranges.

Figure 3: *Custom* screen

6. When the settings are adjusted as needed, tap **Run**.

7. Cure the parts as described in the *TrueDent Best Practice* document.

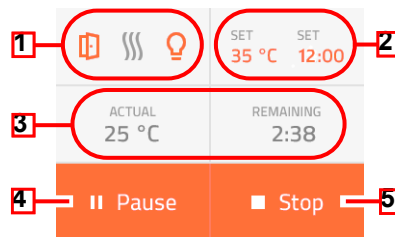When the selected time is reached, the LEDs and heat turn off automatically.

⚠️	**Warning: Hot Surface Hazard**
	The door handle can reach a temperature of approximately 60ºC during operation, and could cause injury.
	Do not touch the product or open the door before wearing heat resistant gloves.

Run Screen

The *Run* screen displays the settings and status of the product.

Figure 4: *Run* screen

#	Component	#	Component
1	Status of the door, lamps, and heater	4	Pauses the process until you tap **Resume**
2	Selected program time and temperature settings	5	Stops the process and returns you to the main screen
3	Process time remaining and chamber temperature		

Care and Maintenance

This product is almost maintenance free, but it is recommended to keep the reflective surfaces clean to allow sufficient light to the parts.

The preferred materials for cleaning the interior and exterior surfaces are mild detergent and water. Follow the following guidelines:

- Before cleaning, unplug the product from the electrical outlet.
- Use a soft cloth dampened (not dripping) with soapy water.
- Do not soak the this product in water or other liquids.
- Wipe surfaces until clean, and then rinse with a clean cloth dampened with clean water.
- For resin residue, use isopropyl alcohol. If isopropyl alcohol is used, allow it to evaporate with the door open before connecting this product to power.
- You can use general purpose household cleaners, such as 409®, Fantastik®, or Windex® for the reflective surfaces.
- Be careful when cleaning the Lexan™ work surface inside the chamber not to allow excess cleaning product to run over the edges where it would be impossible to wipe clean.
- When all surfaces are dry it is safe to reconnect the product to the electrical outlet.

> ⓘ Do not use harsh solvents like acetone, MEK, Toluene, etc. They will damage the product. When in doubt, contact your regional service provider.

- Replace the 4 LED lamps after 800 hours of lamp use.

Spare Parts

1 set of 4 lamps is provided for spare parts.

This product is not user-serviceable, except for the LED lamps. Replacement LED lamps are available for purchase from your distributor or directly from our web store. Should something break, refer to the warranty section of this guide. If your unit is not covered by the warranty, contact your regional service provider for help.

Storage and Transportation

If it is necessary to transport or store this product, the following will ensure the safety of the device:

1. Turn off the power switch.
2. Unplug the product from the power.
3. Wipe the inside and outside of the product with mild detergent and water or isopropyl alcohol to remove excess resin and other debris.

4. Ensure the chamber is empty.

> **ⓘ** It is not necessary to remove the LED lamps for storage or transportation.

5. Place the product in the packing bag (optional).

6. Reinstall the protective foam end caps that originally shipped with the product onto the left and right sides of this product.

7. Slide the bagged product with the end caps into the original boxes. Keep the product upright.

8. Place the power cord in the open space created by the protective foam end caps.

9. Close the top of the boxes using reinforced paper tape (preferred) or clear adhesive shipping tape (if you do not have access to reinforced paper tape). Tape all box seams.

10. Store and transport the product in the upright position.

Troubleshooting

Heating

- **Failure:** Unit is not reaching the set temperature within 1 hour.

  Possible root causes:

  - Input power does not match requirements
  - Environmental conditions do not match requirements

  Verify the following:

  - Power supplied to the unit is within the requirements.

> **⚠ Warning: Electric Shock Hazard**
> This must be performed by a properly licensed technician.

  - Ambient temperature is within the requirements.
  - Unit is not affected by localized airflow, such as an air conditioning unit, fan, and/or an open window near the unit.

Power

- **Failure:** Unit does not power on (screen remains off).

  Possible root causes:

  - General power failure at the site
  - Power outlet failure, or power cable failure
  - Unit internal fuse burnt

Page 10

Verify the following:

> ⚠️ **Warning: Electric Shock Hazard**
> All of the below must be performed by a properly licensed technician.

- Power supplied to the unit is within the requirements.

- Socket and power cable connections are secure.

- Fuse is in working condition. If the fuse is burnt, replace with a fuse with the following specification: 5A, 5x20 mm, quick-acting fuse by Bel, P/N 507-1232-ND or by Schurter, P/N 0034.1523.

stratasys®