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01. Introduction

3D Systems would like to congratulate you on the purchase of the ProJet™ Part Finishing System. We pride ourselves in our ability to offer our customers the latest innovations in parts finishing solutions. We at 3D System are confident that your system will provide valuable service for many years to come.

About This Guide

Copyrights
About This Guide

This guide will help you:

- Understand all safety aspects when operating the system and when handling partially-cured material.
- Prepare your facility for the part washer system installation
- Understand how the system works
- Properly unpack and set up the system
- Understand how to operate and properly maintain the system
- Understand the part finishing processes
- Understand the services offered to you as a valued 3D Systems Customer
The ProJet™ printers produce plastic prototype parts from 3-D solid Computer-Aided Design (CAD). It is intended to be used as a 3-dimensional output device to communicate design intent with durable, physical parts. Parts produced can be used in all phases of design, from a concept build to functional testing and assembly verification. For example, a print from the ProJet™ printer can be used as a tool to communicate design intent, to verify the fit of a new or existing component part or to create a rugged, plastic prototype of a new invention.

The parts are generated in an office environment under the control of the printer operators. It does not require a special technical staff to supervise the system. All design and process considerations are compatible with an RP environment. The three-dimensional solid models that are built consist of an ultraviolet (UV) curable material. When creating the pattern, the VisiJet® material undergoes a phase change. This phase change converts the liquid material into a solid polymer. When the print is complete the model is adhered to the print pad. This pad and the model are removed from the print platform and the model is cleaned and cured to provide a finished part.
02. Safety Symbol Definitions

**UV Radiation Hazard:** Invisible UV radiation is accessible in the vicinity of this sign or behind the panel. Radiation can cause eye injury. Access panels are for service only and should be opened only by certified service personnel.

**Electrical Shock Hazard:** High voltage electricity is accessible in the vicinity of this sign or behind the access panel. High voltage can cause severe burns or death. Access panels are for service only and should be opened only by certified service personnel or trained maintenance personnel.

**Hot Surface Hazard:** A hot surface is accessible in the vicinity of this sign or behind the access panel. Avoid contact. Hot surfaces can cause severe burns. Access panels are for service only and should be opened only by certified service personnel or trained maintenance personnel.

**Harmful Irritant Warning:** Indicates that skin or eye irritation could result while exposed to a chemical composition.

**Caution:** Indicates something may happen that could cause loss of data, damage to equipment, or personal injury.

**Magnetic Exposure Warning:** Strong magnetic field, interaction with metallic objects may produce a pinch hazard. Persons with medical implants KEEP BACK at least 24 inches.
03. Safety Requirement & Guidelines

To ensure personal safety and to avoid damage to the ProJet™ Part Washer System, read and understand all safety guidelines in this section.

- Electrical Safety
- General Safety Guidelines
- Magnetic Safety
- Solvent Safety Guidelines
  - Clean-A-Part Solvent Safety Guidelines
  - TPM Solvent Safety Guidelines
- Ultraviolet Light Exposure
Magnetic Safety

- Special caution should be exercised if one is wearing a pacemaker or other implants because magnetic fields can damage the electronics inside pacemakers and other electronic implants.
- Certain electronic devices are sensitive to magnetic fields and may be damaged permanently or temporarily disabled if exposed to a magnetic field that is too strong.
- Other electronic devices like cellphones and pagers can also be damaged. Store your stir bar magnets in a safe place away from electronics of any kind.
- Magnetic fields can cause damage to magnetic storage media. These include: cassette tapes, floppy disks, credit cards, video tapes, and computer hard drives. Keep all magnets at least 24 inches away from all types of magnetic media.
Solvent Safety Guidelines

- Clean-A-Part Solvent Safety Guidelines
  - Clean-A-Part Solvent Disposal and Recycling
  - Water Rinse Disposal
- TPM Solvent Safety Guidelines
Clean-A-Part Solvent Safety Guidelines

- Users of Clean-A-Part Solvent should be informed about the potential hazards of the solvent prior to use. This solvent will damage surfaces that are made of thermo setting plastics such as acrylic or polycarbonate materials. Do not let solvent contact these surfaces.
- Avoid contact with eyes, skin and clothing.
- In the event of a spill, wear gloves and wipe spill using a cloth. Dispose of solvent and article with solvent on them according to your local environmental regulation.
- Avoid prolonged exposure to the solvent.
- When storing solvent, keep container tightly closed and store in a cool dry place.
- If gloves come in contact with solvent, do not touch surfaces around the work area or clothing.

- Clean-A-Part Solvent Disposal and Recycling
- Water Rinse Disposal
1. Monitor Clean-A-Part Solvent in tank to determine when it needs to be changed. Clean solvent and water rinse are the keys to effective washing. For best results, 3D Systems recommends change the solvent every 3 to 4 cartridges of material.
2. Carefully inspect part and replace solvent when the part cleanliness (especially on smooth surfaces) is no longer acceptable.
3. When solvent replacement is needed, place the Clean-A-Part container on the floor, beneath the finisher and install the carton connector. Connect solvent tank hose connector into the Clean-A-Part container.
4. The solvent will automatically drain into the container. Note: tip the solvent tank to remove as much of the old solvent as possible.
5. The Clean-A-Part Solvent is packaged with a shipping address and MSDS/SDS sheets. Affix the shipping label to the Clean-A-Part Solvent Carton and ship the used solvent to 3D Systems Recycling Center; the solvent will be recycled and disposed of properly. The quick disconnect that is on the container should not be removed. Use the supplied white carton cap to ensure the container is sealed. Use tape to hold the cover and handle in place during shipment.
6. To order more Clean-A-Part Solvent, contact 3D Systems Customer Support or your local reseller.
1. Before refilling the tank with solvent, clean the magnetic stir bar with a clean paper towel and a household solvent such as window cleaner. **Note: the tank may also be cleaned as this time using the same method.**
Draining the Water Rinse Tank

Using the supplied water rinse container, place the tap water rinse container beneath the finisher on the floor. Connect the water tank hose connector to the carton connector. The water will automatically drain into the tap water rinse container. **Note: Tip the container to remove as much of the old water as possible.** Dispose of the water in accordance with local regulations. In some jurisdictions, disposal into the local municipal water disposed system may be acceptable.

Install carton connector to the supplied water carton and connect water tank hose quick-connect to carton.

Place carton on the floor and drain water from tank into carton.

Seal container using the carton lid. Dispose the water in accordance with your local regulations.

3D Systems recommends replacing the tap water rinse daily or at least as frequently as every five (5) prints that parts are washed in the finisher.
TPM Solvent Safety Guidelines

- Follow all safety guidelines in TPM Solvent Material Safety Data Sheet (MSDS/SDS).
- General industry practice is to store Arcosolv TPM in carbon steel vessels. Avoid contact with air when storing for long periods of time.
- Store only in tightly closed, properly vented containers away from heat, sparks, open flame or strong oxidizing agents.
- Handle empty containers carefully. Combustible residue remains after emptying. Store in properly lined steel or stainless steel to avoid slight discoloration from mild steel. Glycol ethers should never be stored or handled in copper or copper alloys. This product may absorb water if exposed to air.
- In the event of a spill, wear gloves and wipe spill using a cloth. Dispose of solvent and article with solvent on them according to your local environmental regulation.
- Avoid prolonged exposure to the solvent.
- If gloves come in contact with solvent, do not touch surfaces around the work area or clothing.
Ultraviolet Light Exposure

- In normal operation, the ultraviolet (UV) light is completely confined, so users are not exposed to potentially harmful emitted radiation.
- UV light from the curing system could cause personal injury. Use recommended protective eyewear which blocks the UV light. It is recommended to never purposely stare directly into the curing system while in operation.
- To prevent eye and skin injuries, the ultraviolet (UV) light inside the curing system will not activate when opened. When closed, the system keeps the UV radiation from escaping.
- Do not open system while operating. Injury to eyes and skin will result.
- Pay attention and follow the warnings contained in this guide concerning operation and maintenance procedures.
General Safety Guidelines

3D Systems' number one priority is to take care of our customers. With that in mind, we want to ensure the safety of our customers and prevent unsafe operating conditions. However, improper use of the system could result in personal injury.

To ensure personal safety, follow these general safety guidelines when operating the washer system.

- Follow all safety rules in this section and observe all cautions and warnings in this guide.
- Do not use VisiJet® materials without first reviewing its Material Safety Data Sheet (MSDS).
- To prevent tripping, ensure power cables are located away from the walking path to the ProJet™ Parts Finishing System.
- If performing maintenance to this system, ensure step by step instructions are followed and safety precautions are heeded during the procedure.
- Operators of the washer should be trained to perform necessary tasks when washing a part according to the guidelines that are set forth in this manual. This includes understanding and following the safety and regulatory guidelines.
- Do not modify any safety features or make modifications to the ProJet™ Parts Finishing System.
- To prevent potential skin-irritation and sensitization due to contact with the VisiJet® part material, follow all guidelines in Material Safety Data Sheet (MSDS).
Electrical Safety

To prevent electrical shock, ensure that your facility meets the part washer system electrical requirements. This finisher requires a grounded, 1-phase electrical power source with a service rating of 100 to 240 VAC~, 50/60 Hz, with at least 4A capacity. For more facility requirement information, See "Facility Requirements."
04. VisiJet® Material Safety Guidelines

- VisiJet® Material Disposal and Recycling
- VisiJet® Material Safety
VisiJet® Material Disposal and Recycling

Users of the VisiJet® materials should be informed about the potential hazards of the material prior to performing operations which may result in exposure to uncured material. This includes removal and the disposal of empty cartridges or unlikely spills that may occur during operation.

Handling uncured material requires the use of gloves and other protective equipment to ensure there is no direct skin contact. If uncured spills occur, promptly remove the spilled material, and dispose of the waste material according to local environmental regulations.

Small spills of uncured liquid can be cleaned up using disposable towels. After wiping the spill, wipe surfaces using a lint free cloth and clean with isopropyl alcohol.

Tools that may be contaminated with the material should be cleaned prior to reuse. Recommended solvents such as IPA are normally required to clean tools. A final wash with soap and water will remove any excessive print material.

Refer to VisiJet® Material Cartridge Disposal for proper disposal of the print material cartridges.
VisiJet® Material Safety

Once the printer has completed its print cycle, the print needs to be removed, cleaned and cured. When print material is uncured, meaning in a paste or wet form, do not touch uncured print material without protective gloves. If uncured material is observed, follow the “Personal Protective Equipment and Skin Protection” to ensure the safe handling of uncured print material.

Flammability and Combustibility: Do not expose print material to heat (at or above 110°C/230°F), flames, sparks, or any source of ignition. (Though the U.S. Department of Transportation does not consider this print material a “flammability hazard,” they do classify it as combustible based on flash points.) For more information on material flash points and combustibility, see the VisiJet® Material Safety Data Sheet (MSDS) packaged with the material cartridge.

Health Hazards: Any chemical may exert harmful effects if it enters or contacts the body in sufficient quantities. Uncured print material is a sensitizer, and can cause allergic reactions if it comes in contact with the skin. Always wear chemically resistant protective gloves; nitrile or neoprene gloves are recommended. DO NOT use latex gloves. Consult the MSDS for specific information about the sensitization potential.

Sensitization dermatitis is the result of an allergic reaction to a given substance. In some cases, direct skin contact is necessary to cause sensitization. It is possible for individuals to become sensitized to a substance even after a trouble-free period of exposure. Many factors affect a person’s susceptibility including: existing skin conditions, personal habits, and individual sensitivity. Even slight exposure can sometimes trigger a severe outbreak of dermatitis. Since sensitization is permanent, a sensitized individual should avoid further contact with the agent.

Inhalation: Under normal operation, inhalation is not an expected exposure method. To ensure personal safety, uncured print material should not be present where food and drink are stored, prepared or consumed. As a precaution, after handling any print material, wash hands with soap and cold water before handling food. Finished parts (cured) can be handled or disposed of in the same manner as standard household plastic products. These parts are not recyclable.

Personal Protective Equipment and Skin Protection: Exposure to uncured material may occur when removing and disposing spent print material cartridges. To prevent contact, wear chemically resistant protective gloves; nitrile or neoprene gloves are recommended. Wear safety glasses with side shields to provide eye protection in the event of a leak or spill of uncured print material.

Respiratory Protection: A NIOSH-approved (or equivalent) dust mask is recommended when sanding cured models.

Training: New users should be trained in the hazards and management of materials. Such training should be provided before they begin working with the modeler or disposal of material waste.
05. Facility Requirements
06. Familiarization

Review the system overview to familiarize yourself on the system's functions are located.

System Overview
07. Installation

This section describes unpacking and how to set-up ProJet™ Parts Finishing System for operation. Ensure that all facility requirements are met to get optimum performance during operation.

- 07.1 Unpacking System
- 07.2 Setting Up Systems
- 07.3 Power Supply Connections
07.1 Unpacking System

- 07.1.1 ProJet™ Curing System
  - UV Bulb Installation
- 07.1.2 ProJet™ Part Washer System
Complete the steps as described in the pictorial. Refer to Setting Up System and Power Supply Connections for more details on how to get your system up and running.

**Note:** Always handle bulb with white glove to avoid leaving hand print on the glass surface. Handling without gloves will reduce bulb efficiency.
UV Bulb Installation

The bulb’s life expectancy is 1200-1600 hours depending on the UV cure process cycles. Unplug the UV curing system’s power supply and lift cover. Follow the steps in the illustration for proper UV bulb installation.

NOTE: Please ensure the correct UV bulb is installed into the correct UV bulb socket. Refer to the illustration for proper installation.

A) Joined Bulb Top

B) Split Bulb Top

A) Plug (1) UV bulb (with joined bulb top) into the top cover socket. Snap bulb in clamps.

B) Plug (1) UV bulb (with split bulb top) into the UV curing system’s right corner socket. Snap bulb in.

Purchase UV bulbs assembly from your local reseller or contact 3D Systems Customer Support.
07.1.2 ProJet™ Part Washer System

Complete the steps as described in the pictorial. Refer to Setting Up System and Power Supply Connections for more details on how to get the system up and running.

NOTE: The tanks packaging includes a coupling that is used for ProJet™ 6000 systems. For V-Flash® and ProJet™ 1500, this coupling is not necessary to install when connecting the hose to the solvent carton.
07.2 Setting Up Systems

Select flat secure work surface that can be easily cleaned (stainless steel, glass, or aluminum work surface is recommended). If plastic surface is chosen make sure it is chemically resistant such as polyethlene or polypropylene, see Solvent Safety Guidelines.

Place the ProJet™ Part Washer base onto work surface and level the unit by turning the leveling feet clockwise or counterclockwise to the proper height.
07.3 Power Supply Connections

Locate power supply cords for both part washer and the UV curing unit. Connect the curing unit and the part washer to a 100V to 240V facility electrical outlet. See 05. Facility Requirements.
08. Operation

- 08.1 Filling ProJet™ Part Washer Tanks
- 08.2 ProJet™ Part Finishing System Operation
08.1 Filling ProJet™ Part Washer Tanks

Please refer to the instructions for your particular model when filling the solvent and rinse tanks.

- 08.1.1 Filling Part Washer Tanks (ProJet™ 1500 & V-Flash®)
- 08.1.2 Filling Part Washer Tanks (ProJet™ 6000)
08.1.1 Filling Part Washer Tanks (ProJet™ 1500 & V-Flash®)

Locate the Clean-A-Part Solvent carton (sold separately) and the tap water container carton shipped with the finisher system.

**Fill Water Tank**

- Remove the plastic cap from the water container and fill container with 4 gallons (18L) of tap water.

- Install the container connector (from packaging) onto container and connect the water tank hose quick-connect onto the container connector.
• Turn container upside down and let it rest on the tank at an angle until all water is emptied into the tank. Once tank is filled, disconnect the water container from the tank hose quick-connect and stow in a secure location for later use to drain and refill the tank.

Fill Clean-A-Part Tank

When filling the solvent tank, please use two 4 gal. Clean-A-Part containers.

Caution: Care should be taken when using any solvent. Do not allow the solvent to sit on any surface other than those properly protected, see Clean-A-Part Solvent Safety Guidelines. If spillage does occur, immediately wipe the spill up with paper towel and use a household solvent such as a glass cleaner to clean the surface.

• Connect the solvent tank hose quick-connect onto the pour connector.
• Turn container upside down and rest container on the tank at an angle until all of the solvent is emptied into the tank. Once filled, disconnect the container from the tank and stow in a secure location for the next use.

Note: Keep container to use for draining the tank. Follow the instructions on how to ship the used solvent to 3D Systems Recycling Center.
08.1.2 Filling Part Washer Tanks (ProJet™ 6000)

Locate the TPM Solvent carton (sold separately) and the tap water container carton shipped with the finisher system.

**Fill Water Tank**

- Remove the plastic cap from the water container and fill container with 10 gallons (38L) of tap water.

- Install container coupling (from packaging) onto container connector. Connect the water tank hose quick-connect onto the coupling.
• Turn container upside down and let it rest on the tank at an angle until all water is emptied into the tank. Once tank is filled, disconnect the water container from the tank hose quick-connect and stow in a secure location for later use to drain and refill the tank.

Fill TPM Tank

Caution: Care should be taken when using any solvent. Do not allow the solvent to sit on any surface other than those properly protected, see TPM Safety Guidelines. If spillage does occur, immediately wipe the spill up with paper towel and use a household solvent such as a glass cleaner to clean the surface.

• Remove the cap from the TPM container. Connect the coupling (supplied in packaging) to the solvent pour connector.

• Connect the solvent tank hose quick-connect onto the coupling.
• Turn container upside down and rest container on the tank at an angle. Pour two (2) five gallons of solvent into the tank. Once filled, disconnect the container from the tank and stow in a secure location until it is time to recycle or for disposal.

Note: Keep container to use for draining the tank. Follow the instructions on how to ship the used solvent to 3D Systems Recycling Center.
08.2 ProJet™ Part Finishing System Operation

- 08.2.1 ProJet™ Part Washing (ProJet™ 1500 & V-Flash)
- 08.2.2 ProJet™ Part Washing & Removing Support Structure (ProJet™ 6000)
- 08.2.3 Curing Parts
- 08.2.4 Removing Support Structures (ProJet™ 1500 & V-Flash®)
08.2.1 ProJet™ Part Washing (ProJet™ 1500 & V-Flash)

*ProJet™ Part Washer System*

Turn on the ProJet™ Part Washing System and set the timer included in wash tanks packaging to 5 minutes. **Note:** Follow the operating instructions packaged with the timer on how to set the time.

Use Nitrile glove to remove print pad from ProJet™ printer. Depending on your printing, choose either step 1 or 2 when installing print pads to the finisher’s print pad holder.

1. **ProJet V-Flash & 1500 Only:** slide the print platform into the clips on finisher’s on each side of print pad holder. Ensure that print pad is fully seated in holder.

2. **ProJet 6000:** slide the print platform into the side of finisher’s pad holder and into the top clip. Ensure that print pad is fully seated in holder.

4. Place the holder in the solvent tank filled with 8 gal. (30L) of Clean-A-Part solution. Press the timer to start the 5 minute cycle.
5. Once cycle is completed, lift the print pad holder out and set it on the print pad clip to allow most of the solvent to drip off the part. **Note:** Allow the solvent to drip off the part completely before proceeding to the next step.

6. Place the print pad holder into the water rinse tank and press the timer for the 5 minute cycle.
7. Once cycle is completed, lift the holder and set it on the print pad clip to allow most of the water to drip off the part. **Note:** for best quality, blot excess water with a paper towel, or use air to remove water from the part before curing.
08.2.2 ProJet™ Part Washing & Removing Support Structure (ProJet™ 6000)

ProJet™ Part Washer System

Turn on the ProJet™ Part Washing System and set the timer included in wash tanks packaging to 5 minutes. Note: Follow the operating instructions packaged with the timer on how to set the time.

Use Nitrile glove to remove print pad from ProJet™ printer.

<table>
<thead>
<tr>
<th>Step</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Slide the print platform into the clips at the top of print pad holder. Ensure that print pad is fully seated in holder.</td>
</tr>
<tr>
<td>2.</td>
<td>Place the holder in the solvent tank filled with 10 gal. (38L) of TPM solvent. Press the timer to start the 30 minute cycle.</td>
</tr>
</tbody>
</table>
3. Once cycle is completed, lift the print pad holder out and set it on the print pad clip to allow most of the solvent to drip off the part. **Note:** Allow the solvent to drip off the part completely before proceeding to the next step.

4. Place the print pad holder into the water rinse tank and press the timer for the 5 minute cycle.

5. Once cycle is completed, lift the holder and set it on the print pad clip to allow most of the water to drip off the part. **Note:** for best quality, blot excess water with a paper towel, or use air to remove water from the part before curing.
6. Before placing parts into the curing unit, remove the parts from the print pad; using a scraper, carefully scrape the part support structure away from the print pad. Remove the support structure from the parts using tweezers for small areas or snips for larger areas.
08.2.3 Curing Parts

ProJet™ Curing System

Timer Familiarization

1. Reset Switch
2. Lock Switch
3. Time Remaining Display
4. Timer Setting Display (minutes/seconds)
5. UP Key
6. DOWN Key

Setting Timer

1. Set the Timer Setting Display (4) by pressing the Up (5)/Down (6) to sixty minutes.
2. When the print pad is placed in the curing unit, press the curing unit's power switch. The Time Remaining Display (3) will begin to count down in seconds and minutes.
3. To stop the timer, press the reset switch or press the curing unit's power switch; the timer will pause. The reset key can also reset the time on the timer setting display.
4. To lock the time on the display, press the lock Switch (2). Press the lock switch once again to unlock the timer.

5. Remove the print pad from the part washer's holder and place the print pad in the curing unit. Place holder back into tank for the next part to be washed.

Place build pad in to UV Curing System
6. **Attention**: The curing time varies depending on your printer model. Please refer to Step a. or Step b. for your printer's correct curing time.

   a) **V-Flash**: Place the print pad into the curing system. Place the print pad into the curing system. Set the timer for a 60 minute curing cycle as described in Timer Familiarization. Once the curing process has started, ensure that the turntable is rotating and the part is centered inside the unit. Once part has cured, open the curing system and remove the print pad. It is not necessary to wear gloves once the part is cured. **Note**: If part is not fully cured on the print pad side, it may be removed from the print pad and cured for an additional 10-20 minutes or until it is no longer tacky to the touch.

   b) **ProJet 1500**: Place the print pad into the curing system. Place the print pad into the curing system. Set the timer for a 25 minute curing cycle as described in Timer Familiarization. Once the curing process has started, ensure that the turntable is rotating and the part is centered inside the unit. Once part has cured, open the curing system and remove the print pad. It is not necessary to wear gloves once the part is cured. **Note**: If part is not fully cured on the print pad side, it may be removed from the print pad and cured for an additional 10-20 minutes or until it is no longer tacky to the touch.

   c) **ProJet 6000**: After the parts are removed from the print pad, place the individual parts into the curing unit. After the parts are removed from the print pad, place the individual parts into the curing unit. Set the timer for a 30 minute curing cycle for the first side of the print pad as described in Timer Familiarization. Once the curing process has started, ensure that the turntable is rotating and the part is centered inside the unit. After the curing process the first curing process, rotate the print pad and set the timer for another 30 minute cycle.

   **NOTE**: Once part has cured, open the curing system and remove the print pad. It is not necessary to wear gloves once the part is cured.
08.2.4 Removing Support Structures (ProJet™ 1500 & V-Flash®)

Caution: When removing parts from the print pad, support structure can become flying debris, wear safety goggles when removing parts from the print pad holder.

Caution: When sanding the support attach points, dust will occur, use a NIOSH approved dust mask for protection.

When removing parts from the print pad that has dense supports and flat parts use the putty knife supplied with system. If supports are thin and not dense, use the clippers (supplied with system) to remove supports.
If a smoother finish is desired, use fine or super fine grit sand paper to remove the support attach point. A rotation tool such as a Dremel™ tool with a sandpaper wheel also works well. Properly dispose of the print pad according to your local requirements.
09. Maintenance

Cleaning Surfaces

NOTE: It is very important to clean the tanks each time they are drained to remove any residue and to prevent part contamination. Fresh water should be used in water tank after every ten (10) platforms of parts to ensure optimal cleaning. When cleaning the tanks, ensure tanks bottoms and sides are thoroughly clean using glass cleaner or isopropyl alcohol. Dispose of water and solvent according to your local codes.

WARNING: Wear gloves when handling the solvent. If gloves come into contact with the solvent, replace them with a clean pair before touching work area surfaces.

Do not let Clean-A-Part Solvent contact surfaces that are made of thermosets. Doing so may cause damage to these materials and surfaces.

Do Not expose furniture, countertops, clothing, appliances, computer hardware, carpet, or other similar surfaces and materials. It is recommended to place parts that are not completely dry or parts that are waiting to be cured in an aluminum pan.

WARNING: Before beginning these steps, turn off the finisher and unplug power cord to avoid electrical shock.

Draining Solvent

Refer to Clean-A-Part Solvent Disposal for draining and disposal of solvent.

Draining Tap Water Tank

Refer to Tap Water Rinse Disposal for draining and tap water disposal.

NOTE: After water is drained from the water/rinse tank, clean tank with alcohol to remove the residue that collects with use. This should be done every time the water is removed and before re-filling.

UV Bulb Replacement

The hour meter located on the UV Curing System counts the UV curing process cycles. During these cycles, the life of the UV bulbs will lose efficiency due to the number of use. The bulb's life expectancy is 1200-1600 hours depending on the UV cure process cycles. If the parts are not cured in 60 minutes for V-Flash or 30 minutes for ProJet 1500 and ProJet 6000, it may be an indication that the bulbs need to replaced. Unplug the UV curing system’s power supply and lift cover.

Note: Always handle bulb with white glove to avoid leaving hand print on the glass surface. Handling without gloves will reduce bulb efficiency.

Follow the steps in the illustration for proper UV bulb installation.
Purchase UV bulbs assembly from your local reseller or contact 3D Systems Customer Support.
## 10. Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnets do not spin.</td>
<td>Tank is not clean. Stir bar is damaged. Motor heights need adjusting. Stir bar is dirty.</td>
<td>Clean tank, see <a href="#">Clean-A-Part Solvent Disposal and Recycling</a> for instructions. Replace Stir bar. Reset the motor heights. Clean stir bar with glass cleaner or IPA.</td>
</tr>
<tr>
<td>Tank is leaking.</td>
<td>Leaking around fittings. Fittings are loose. Tank defective.</td>
<td>Drain liquid back in to cubitainers and contact 3D Systems Customer Service Hotline. Inspect fittings for leaks and tighten fittings if necessary. If leaks still are noticeable, contact 3D Systems Customer Service Hotline.</td>
</tr>
</tbody>
</table>
11. Service and Support

- Contacts
- Service Support
Contacts

From the moment you acquire 3D Systems’ products, our Technical Support team moves into action to bring you technical support information to assist you.

3D Systems - Rock Hill, SC - Headquarters
333 Three D Systems Circle
Rock Hill, SC 29730 USA
Telephone (803) 326-4080
TollFree (800) 793-3669 (US/Canada)
+49-6151-357357 (Central Region, Europe)
Service Support

3D Systems provides a variety of service and support options around the world. Availability of these programs will vary depending upon your location.

Obtaining Service
In order to obtain hardware service, you will need to contact 3D Systems Customer Support. When placing the call, please have available your name, day time telephone number, day time fax number, email address, your finisher's serial number and proof of purchase (receipt, invoice, or packing slip) information.

Please describe your technical difficulty to one of our professional technicians. They will work with you to resolve your issue and help you to get your finisher up and running. If your issue is not resolved, service support will determine whether the difficulty you are experiencing is the result of the finisher's hardware, whether your finisher contains a defect, and if it is under warranty.

If the finisher needs to be returned, 3D Systems Customer Support will give you specific instructions on how to package the finisher and the shipping information for return.