



A Family and Employee Owned Company

Installation Manual

5824000K

SumpJet[®] Water-Powered Backup System

Models

SJ10

No Alarm

SJ10A

With Alarm

SJ10A-EYE

With NightEye[®] Alarm



SJ10



SJ10A



SJ10A-EYE



NOTICE

Installer: Manual must remain with owner/operator.

Record information:

7000 Apple Tree Avenue
Bergen, NY 14416
ph: 1-800-543-2550
fax: 1-585-494-1839
www.LibertyPumps.com

Keep this manual handy for future reference.
For replacement manual, visit LibertyPumps.com,
or contact Liberty Pumps.
Retain dated sales receipt for warranty.

Model: _____

Serial: _____

Date Code: _____

Install Date: _____

Contents

General Information	3 EN
Installation	4 EN
Warranty	7 EN
Hole Template	8 EN

Safety Guidelines

	This safety alert symbol is used in the manual and on the pump to alert of potential risk for serious injury or death.
	This safety alert symbol identifies risk of electric shock . It is accompanied with an instruction intended to minimize potential risk of electric shock.
	This safety alert symbol identifies risk of fire . It is accompanied with an instruction intended to minimize potential risk of fire.
	This safety alert symbol identifies risk of serious injury or death . It is accompanied with an instruction intended to minimize potential risk of injury or death.
	This safety alert symbol identifies battery hazards. It is accompanied with an instruction intended to minimize potential risk from the battery.
⚠ DANGER	Warns of hazards which if not avoided will result in serious injury or death.
⚠ WARNING	Warns of hazards which if not avoided could result in serious injury or death.
⚠ CAUTION	Warns of hazards which if not avoided could result in minor or moderate injury.
NOTICE	Signals an important instruction related to the pump. Failure to follow these instructions could result in pump failure or property damage.

⚠ WARNING	Read every supplied manual before using pump system. Follow all the safety instructions in manual(s) and on the pump. Failure to do so could result in serious injury or death.
------------------	---

Safety Precautions

⚠ WARNING **RISK OF ELECTRIC SHOCK**

- Always disconnect any electric pumps from the power source before handling, installing, or adjusting the SumpJet.

⚠ WARNING **RISK OF SERIOUS INJURY OR DEATH**

- Energizing the control panel or breaker for the first time is potentially dangerous. Licensed electrical personnel should be present when the panel or breaker is energized for the first time. If faults caused by damage or poor installation practices have not been detected, serious damage, injury, or death can result when power is applied.
- Sump water is non-potable. To reduce the risk of contamination of the potable water supply, additional backflow protection must be provided by the installer to meet the requirements of the local plumbing code or the requirements of the local water authority. As per the Uniform Plumbing Code® and per the plumbing codes of some states, including the state of Michigan, installation of this product requires the use of a Reduced Pressure/Reduced Pressure Zone (RP/RPZ) backflow protection device. Contact your local plumbing or water authority for more information regarding the requirements for your specific area.

⚠ CAUTION

- ◆ The SumpJet is designed for use in clear water only. It is not designed to remove waste water, sewage, effluent, or water with debris in it.

NOTICE

- ◆ The SumpJet is designed for use with municipal water supply, and is intended to be used as an emergency back-up to an existing pump system.
- ◆ The SumpJet comes with a foot valve installed and therefore does not require a check valve on the discharge. The foot valve has a removable poppet. If freezing discharge pipes are a potential problem, unscrew the strainer screen, remove the poppet and spring, and replace the strainer. The SumpJet will then allow water to flow back into the basin, reducing the chance of freezing discharge pipes.
- ◆ Maximum supply water pressure = 100 psi (690 kPa) with the valve closed.
- ◆ Recommended minimum supply water pressure (ahead of backflow prevention device) = 30 psi (207 kPa) with the valve open (less pressure may not eject water from basement adequately).
- ◆ For nominal backflow protection, the SumpJet is pre-equipped with an internal check valve certified to ASME A112.18.3 and ASME A112.18.1/CSA B125.1.
- ◆ Discharge of the SumpJet must not be connected to the primary sump pump.
- ◆ Discharge of the SumpJet must not be directly connected to the municipal drain.
- ◆ Use a 1-inch air gap at a minimum or direct the discharge outside of the building and ensure that the end of the pipe is between 6 and 24 inches (150 and 610 mm) above the ground or the flood level of the area receiving the discharge.
- ◆ The inlet of the SumpJet is factory-equipped with a SharkBite Max™ push-type pipe connector. This fitting can be used with various approved 3/4-inch potable water tubing and pipe, such as PEX tubing (ASTM F876, CSA B137.5), copper pipe (ASTM B 88), or CTS CPVC pipe (ASTM D 2846, CSA B137.6). For more details on using the SharkBite Max, visit www.sharkbite.com.

- ◆ Do not use paste-type sealant on inlet threads, and do not sweat copper fittings within 18 inches of the SumpJet body. Use PTFE (Teflon™) sealing tape only when assembling threaded fittings into SumpJet inlet. Do not overtighten the threaded inlet fitting, and do not hold onto the float plunger shroud when tightening.
- ◆ Purge the water line prior to connection to the SumpJet to ensure debris does not enter unit and clog the operating valve.
- ◆ The SumpJet utilizes a quick-acting valve which, per UPC, requires the use of an approved water pressure absorbing device to prevent water hammer.
- ◆ Do not use the SumpJet in water greater than 130°F (54°C).
- ◆ Do not allow the pump to freeze.

Table 1. SumpJet Specifications

Water pressure at inlet of SumpJet with valve open and water flowing		Sump water removal at various heads. (static head in 1-1/2" pipe or larger)											
LIFT		4 ft		1.21 m	8 ft		2.4 m	12 ft		3.6 m	15 ft		4.5 m
PSI	KPA	GPM	GPH	M ³ /hr	GPM	GPH	M ³ /hr	GPM	GPH	M ³ /hr	GPM	GPH	M ³ /hr
20	138	11.0	660	2.5	5.8	348	1.3						
30	207	12.8	765	2.9	9	540	2.0	5.5	330	1.2			
40	276	15.4	924	3.5	12.5	750	2.8	9.3	558	2.1	7.2	432	1.6
50	345	17.2	1032	3.9	14.5	870	3.3	12	720	2.7	10	600	2.3
60	414	19.8	1185	4.5	17	1020	3.9	15.2	912	3.5	13.5	810	3.1

Note: For optimal performance, minimum recommended operating pressure is 30 psi. Use of an RP/RPZ may lower operating pressure.

General Information

Read this manual prior to installing and using this pump. Each Liberty Pumps pump is factory tested to ensure proper performance. Following these instructions will reduce potential operating problems and ensure years of trouble-free service.

While Liberty Pumps products are designed to require minimal maintenance, regular maintenance checks will safeguard the pump's operating reliability and longevity.

WARRANTY: Do not perform any repair work during the warranty period without prior factory approval. Doing so may render the warranty void.

PUMP SERIAL NUMBER: Make sure to provide the pump serial number in all correspondence and reports.

Pump Design

The Liberty Pumps SumpJet is an emergency back-up for existing pump systems. It uses the municipal water supply to evacuate water from the sump. It is **not** intended to be used as the primary sump water removal pump; its purpose is to remove clear sump water only.

Prolonged use of the SumpJet will result in increased municipal water consumption. The SumpJet uses approximately 1 gallon of water to remove 2 gallons of sump water depending on elevation.

Optional Alarm

Liberty Pumps recommends the use of an audible high-water alarm. The model SJ10A features an alarm system to warn customers when the SumpJet is activated. The model SJ10A-EYE features the NightEye alarm for wireless alarm protection. If you purchased the model SJ10 without an alarm, order an alarm (ALM-P1 or ALM-P1-EYE) from your local distributor or contact Liberty Pumps for more information.

Inspection Upon Receipt

The shipping container should be immediately inspected for damage that may have occurred in shipment. Be careful when opening the shipping container to avoid damage to the pump. Remove any blocking and cushioning within the container.

Check all cushioning for any loose spare parts before discarding. Check the pump and its parts for damage. Report any damage or shortage of parts.

Storage Before Use

Liberty Pumps products are shipped from the factory ready for installation and use. If the pump station is not complete, put the pump in storage. While in storage, the pump should remain in its shipping container. Store the pump in a clean, dry, temperature-stable area of a warehouse or storage shed.

Make sure to cover the pump and its container to protect it from water, dirt, dust, and other debris.

NOTICE

- ◆ Never store the pump in an incomplete wet pit. Do not place the pump into the pit until it is fully operational.

Long-Term Storage

If long-term storage of the SumpJet is required, store it indoors in a clean, dry temperature-stable environment. Make sure to cover the pump and its container to protect it from water, dirt, dust, and other debris. Do not allow the pump to freeze.

Maintenance

If installed pumps are idle for long periods of time, run them manually each month to ensure proper operation. Check for proper operation of the float and clean any debris that may be on the float or the suction screen. Make sure that the float operates freely without any restrictions.

Installation

⚠ WARNING **RISK OF ELECTRIC SHOCK**

- Always disconnect any electric pumps from the power source before handling, installing, or adjusting the SumpJet.

NOTICE

- ◆ The SumpJet comes fully assembled. Only placement and connection is required.
- ◆ Do not use a garden hose. Garden hoses are not designed to hold municipal pressure indefinitely. A garden hose could leak or burst and cause flooding. For installation, the SumpJet requires permanent piping methods such as copper, PEX, CTS CPVC, or other permanent plumbing method. To ensure the SumpJet attains maximum performance from the SumpJet, it is recommended that the unit is plumbed with 3/4-inch pipe. All water supply piping shall be made of materials and methods approved by the local plumbing codes.
- ◆ For nominal backflow protection, the SumpJet is pre-equipped with an internal check valve certified to ASME A112.18.3 and ASME A112.18.1/CSA B125.1. Additional backflow protection must be provided by the installer to meet the requirements of the local plumbing code or the requirements of the local water authority. **As per the Uniform Plumbing Code and per the plumbing codes of some states, including the state of Michigan, installation of this product requires the use of an RP/RPZ backflow protection device.** Contact your local plumbing or water authority for more information regarding the requirements for your specific area.
- ◆ Do not connect the discharge of the SumpJet to the primary sump pump.
- ◆ Do not directly connect the discharge of the SumpJet to the municipal drain.

- ◆ Use a 1-inch air gap at a minimum or direct the discharge outside of the building, ensuring that the end of the pipe is between 6 and 24 inches (150 and 610 mm) above the ground or the flood level of the area receiving the discharge.
- ◆ The inlet of the SumpJet is factory-equipped with a push-type pipe connector, SharkBite Max™, and can be used with PEX, CTS CPVC, or copper pipe.

Installation Steps

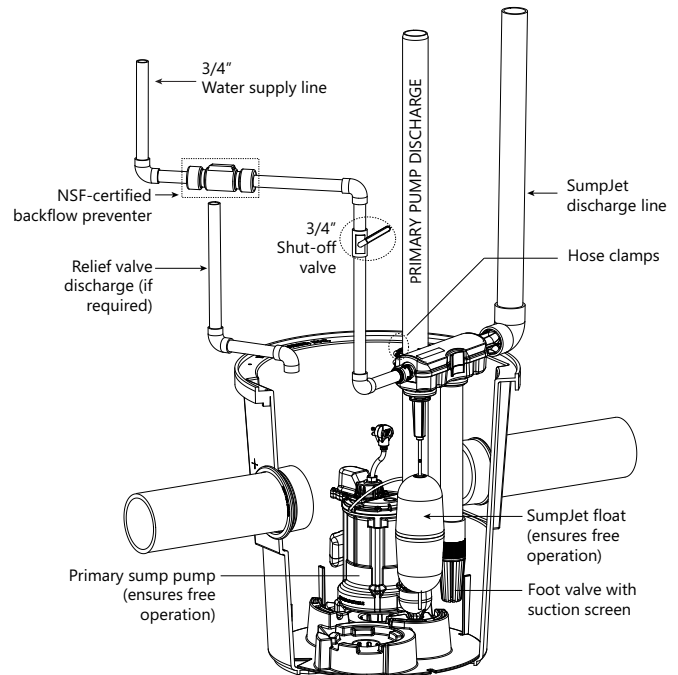


Figure 1. Typical Installation

1. Using the provided hose clamps, mount the SumpJet to the existing discharge pipe. Place the unit so the float level will operate a few inches above the turn-on level of the primary sump pump. (Refer to Figure 2). Tighten the hose clamps on the discharge pipe.

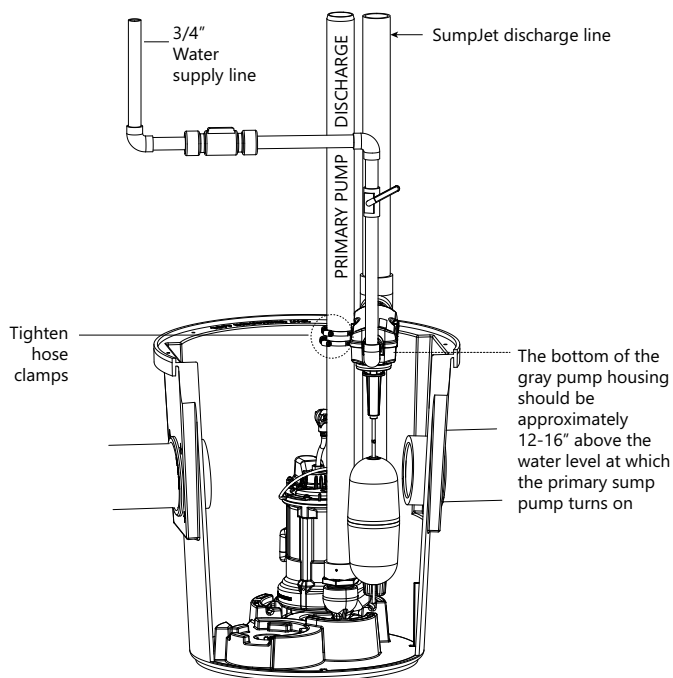


Figure 2. SumpJet Placement

2. After mounting the SumpJet, prepare to hook into the existing municipal water supply line. Shut off the municipal water supply and plumb the tubing or piping into the municipal water supply line. Use the appropriate backflow prevention per local codes and jurisdiction. The water supply and discharge piping require a union or other quick-disconnect fitting to make the pump accessible for servicing and a dedicated shut-off valve installed on the water supply line within 6 feet (1.8 meters) of the pump. All water supply piping shall be made of materials and methods approved by local plumbing codes.
3. Prior to connecting the water supply line to the SumpJet, purge the water line to ensure it is free from debris, solder, pipe sealant, and other materials.
4. To connect the water supply line to the SharkBite Max, cut the pipe or tubing end square. Ensure that there are no burrs or scratches 1 inch from the cut end.
 - a. Mark the pipe or tubing 1 inch from the cut end to indicate proper insertion depth. If using PEX tubing, use the tube liner in the end of the SharkBite Max. For copper and CTS CPVC piping, remove the tube liner using fingers or pliers.
 - b. Insert the tubing or pipe into the SharkBite Max through the release collar to rest it against the grab ring.
 - c. Push the tube or pipe firmly until it reaches the tube stop.
 - d. To ensure the tube or pipe is correctly inserted, check that the depth mark is up to the end of the release collar.

5. If the SharkBite Max fitting is removed for connection to other types of 3/4-inch NPT threaded fittings, remove all sealing tape from the threaded inlet of the SumpJet. Use a small pick-type tool if necessary. Do not allow any debris to enter the valve body.

NOTICE

- ◆ If reconnecting the SharkBite Max™ or other threaded fitting, use PTFE (Teflon) sealing tape only when assembling threaded fittings into SumpJet inlet.
 - ◆ Do not over-tighten threaded inlet fitting, and do not hold onto float plunger shroud when tightening.
 - ◆ Do not sweat pipes or fittings directly connected to the SumpJet. Heat transferred from the copper will damage plastic parts.
6. Determine the length of discharge pipe required for the discharge exit point. Using schedule 40 PVC pipe, glue the discharge pipe into the socket elbow of the SumpJet. Complete all discharge piping. Discharge piping should be routed to the yard outside the building.

Note: The SumpJet comes complete with a foot valve. There is no need to install a check valve on the discharge pipe.

Note: The foot valve has a removable poppet. If freezing discharge pipes are a potential problem, unscrew the strainer screen, remove the poppet and spring, and replace the strainer. The SumpJet will then allow water to flow back into the basin, reducing the chance of freezing discharge pipes.
 7. Turn the municipal water supply back on and open the shut-off valve. Check for leaks. Test the SumpJet to ensure that it is operational by filling the sump pit with water from a garden hose or bucket.
 8. Re-connect primary electric sump pump to the power supply.
 9. If a sump cover is desired, use U-bolts to clamp the SumpJet to the sump cover. See Figure 4 to determine the correct position for the holes required in the sump cover.

Extended Discharge Option

In the previous version of the SumpJet, the elbow was pre-glued onto the discharge. In the latest SumpJet version, the elbow is included separately in the SumpJet package—offering an extension option if desired. See Figure 3.

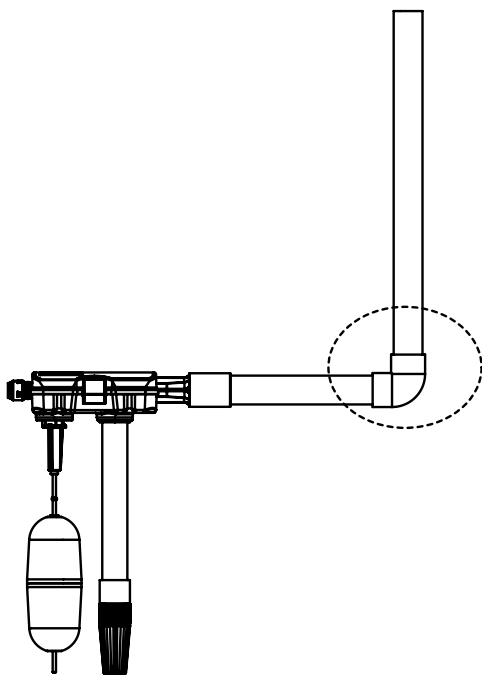


Figure 3. Extended Discharge Option

Warranty

Liberty Pumps Wholesale/Commercial Series Products Limited Warranty

Liberty Pumps, Inc. warrants that Liberty Pumps wholesale products are free from all factory defects in material and workmanship for a period of three (3) years from the date of purchase (excluding batteries* and **Commercial Series**** models). The date of purchase shall be determined by a dated sales receipt noting the model and serial number of the pump. The dated sales receipt must accompany the returned pump if the date of return is more than three years from the date of manufacture noted on the pump nameplate.

The manufacturer's sole obligation under this Warranty shall be limited to the repair or replacement of any parts found by the manufacturer to be defective, provided the part or assembly is returned freight prepaid to the manufacturer or its authorized service center, and provided that none of the following warranty-voiding characteristics are evident:

The manufacturer shall not be liable under this Warranty if the product has not been properly installed, operated, or maintained per manufacturer instructions; if it has been disassembled, modified, abused, or tampered with; if the electrical cord has been cut, damaged, or spliced; if the pump discharge has been reduced in size; if the pump has been used in water temperatures above the advertised rating; if the pump has been used in water containing sand, lime, cement, gravel, or other abrasives; if the product has been used to pump chemicals, grease, or hydrocarbons; if a non-submersible motor has been subjected to moisture; or if the label bearing the model and serial number has been removed.

Liberty Pumps, Inc. shall not be liable for any loss, damage or expenses resulting from installation or use of its products, or for consequential damages, including field labor costs, travel expenses, rental equipment, costs of removal, reinstallation or transportation to and from the factory or an authorized Liberty Pumps repair facility.

There is no other express warranty. All implied warranties, including those of merchantability and fitness for a particular purpose, are limited to three years from the date of purchase. This Warranty contains the exclusive remedy of the purchaser, and, where permitted, liability for consequential or incidental damages under any and all warranties are excluded.

*Liberty Pumps, Inc. warrants StormCell® batteries for 1 year from date of purchase.

Liberty Pumps, Inc. warrants that pumps of its **Commercial Series are free from all factory defects in material and workmanship for a period of 18 months from the date of installation or 24 months from the date of manufacture, whichever occurs first, and provided that such products are used in compliance with their intended applications as set forth in the **Commercial Series** technical specifications and manuals. The date of installation shall be determined by a completed pump start-up report and warranty registration form. A pump start-up report, filled out by a qualified installer, is required for warranty to take effect. The report must be submitted within 30 days from the installation date and submitted through the Liberty Pumps website.

www.libertypumps.com/wp/dom/Services/Warranty/Commerical-Series-Startup-Form

Hole Template

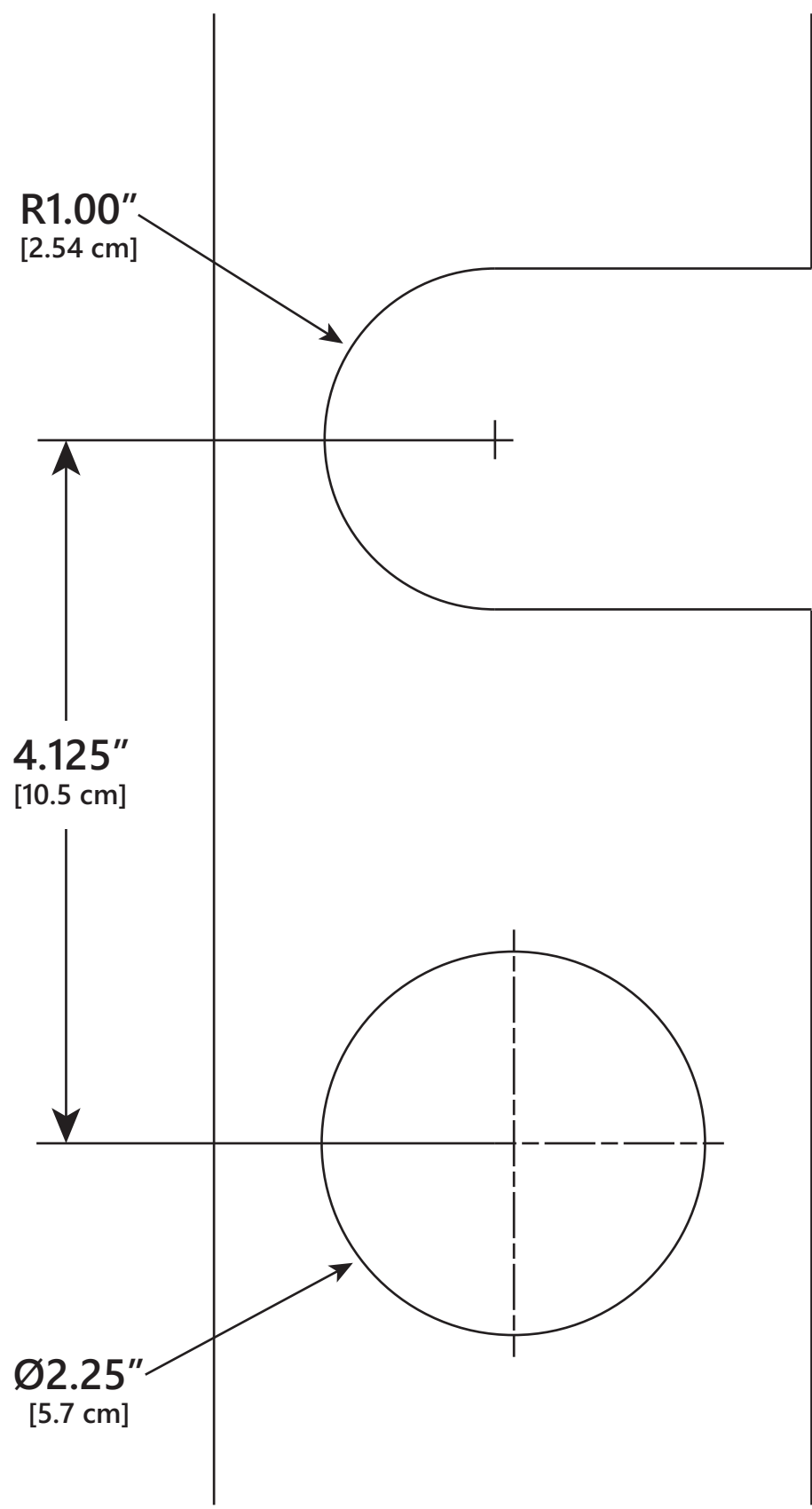


Figure 4. SumpJet Hole Template