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800-521-6224
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Instructions for Use: SST Pump & Hose

Brand Name of Product	SST Pump & Hose
Generic Name of Product	SST Pump & Hose
Product Code Number(s)	IP579-4
Purpose of Product	To drain SST Trays from fluids
Range of Applications for Product	SST Trays and/or draining of any other items that require solution evacuation.
Key specifications of product	<ul style="list-style-type: none"> ● Stainless Steel Pump ● Hose

Shipping & Storage	
Shipping Conditions & Requirements	
Storage Conditions	
Packaging Conditions	
Shelf Life	

Instructions for Using Product	
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Description of Use (s)	
Preparation for Use	In any installations where property damage and/or personal injury might result from an inoperative or leaking pump due to power outages, discharge line blockage, or any other reason, a backup system(s) should be used. In order to safely use this product, familiarize yourself with this pump and also with the liquid (chemical, etc.) that is going to be pumped through the unit. This pump is not suitable for many liquids.

Diagrams (drawings, pictures):	
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Steps for Use of Product	<p><u>Installation</u></p> <ol style="list-style-type: none"> 1. Pump should be placed as close to source of liquid and power as possible, not more than 7' above liquid source and not more than 25' from power source. 2. Use reinforced plastic or fabric tubing or metal pipe for the suction side of the pump. This will prevent collapse of the suction piping. Discharge piping should never be larger than suction piping! 3. Attach suction line piping to the suction inlet and discharge line piping to the discharge outlet. 4. Avoid using looped sections of pipe that might permit air to become entrapped. 5. Piping should be checked for any leaks at the connections. Small leaks in suction line greatly reduce efficiency of pump and may prevent priming. Pump should be permanently mounted; never operate a pump unless it is secured to a solid foundation. 6. Do not operate pump dry. Impeller and mechanical seal damage will result. 7. Protect pump from extreme heat, cold, and humidity. This unit is not waterproof and is not intended to be used in showers, saunas, or other potentially wet locations. 8. The motor is designed to be used in a clean, dry location with access to an adequate supply of cooling air. Ambient temperature around the motor should not exceed 104°F (40°C). For outdoor installations, motor must be protected by a cover that does not block airflow to and around the motor. This unit is not weatherproof, nor is it able to be submersed in water or any other liquid. Do not use in or near swimming pool or spa. 9. Install a foot valve and prime pump when suction lift is over 6' or when suction
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	<p>line is longer than 6'.</p> <p>10. It is strongly recommended that this unit be plugged into a GFCI (Ground Fault Circuit Interrupter). Consult your local electrician for installation and availability.</p> <p>11. When used in a boat, pump should not be installed in the bilge.</p> <p>WARNING: Disconnect battery when making adjustments and repairs. First, remove the battery NEGATIVE (–) ground cable, then lastly the battery POSITIVE (+) cable.</p> <p><u>Operation</u></p> <p>1. Pumps are self-priming and should prime themselves within 30 seconds after pump is started. Wetting impeller with pumped fluid and keeping the impeller coated with petroleum jelly will lengthen its life and improve priming action. Running the impeller dry for as short as 30 seconds can ruin the impeller. Keep suction line as short as possible.</p> <p>NOTE: An easy way to prime the pump (wet impeller), if using a garden hose, is to fill the discharge hose; elevate the discharge hose slightly to retain water and start the pump. Another method would be to disconnect the discharge hose from the pump, making a U-bend of the discharge hose. Fill the hose then reconnect (without losing the water) to the pump. In both cases the water behind the impeller will seal the pump and it will prime almost immediately.</p> <p>2. Unit can be turned on and off by plugging & unplugging cord into 115V outlet.</p> <p>3. Do not run at heads greater than 25' (11psig).</p> <p>4. Pump equipped with a 12-Volt DC motor:</p> <p>a. To operate, the motor must be connected to a 12-volt battery in good condition, such as the type used in cars, trucks, boats, etc. Motor will run in either direction. Therefore, connect the red wire to the POSITIVE (+) terminal of the battery, the black wire to the NEGATIVE (–) terminal of the battery to have the flow correspond with the arrow on the cover plate. By reversing the wires to the battery, the pump will discharge from the opposite port.</p> <p>b. Low voltage may cause critical overheating and premature failures. To avoid this, be sure battery voltage is maintained and observe recommended wire size during installation. The motor is splash proof, but not waterproof. DO NOT SUBMERGE.</p> <p>CAUTION: Because unit is thermally protected, it is designed to shut off temporarily in an overheat condition; therefore, pumping extremely hot liquids is not recommended. Also, to protect the impeller from breakage, do not pump liquids with a temperature less than 40°F. DO NOT TOUCH MOTOR, IT MAY BECOME VERY HOT.</p> <p>WARNING: Do not submerge pump or motor in water.</p>
Interpretation of Results	
Contraindications of Test Results	
Documentation	
Special Warnings and Cautions	<p>Safety Guidelines</p> <p>WARNING: Do not use to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do not use in flammable and/or explosive atmospheres. Pump should only be used with liquids compatible with pump component materials. Failure to follow this warning can result in personal injury and/or property damage.</p> <ol style="list-style-type: none"> 1. Know the pump application, limitations, and potential hazards. 2. WARNING: Do not handle a pump or pump motor with wet hands or when standing on a wet or damp surface, or in water. 3. The pump is not submersible and is intended for open-air use only. 4. Disconnect power before servicing a motor or its load. If the power disconnect is out-of-sight, lock it in the open position and tag it to prevent unexpected application of power. 5. Release all pressure within the system before servicing any component. 6. Drain all liquids from the system before servicing. 7. The pump motor is equipped with an automatic resetting thermal protector

- and may restart unexpectedly. Protector tripping is an indication of motor overloading as a result of operating the pump at low heads (low discharge restriction), excessively high or low voltage, inadequate wiring, pumping too hot a liquid, incorrect motor connections, or a defective motor or pump. Read troubleshooting chart.
8. Do not touch an operating motor. Modern motors are designed to operate at high temperatures.
 9. Provide adequate protection and guarding around moving parts. Secure the discharge line before starting the pump. An unsecured discharge line will whip, possibly causing personal injury and/or property damage.
 10. Check hoses for weak or worn condition before each use, making certain that all connections are secure.
 11. Periodically inspect pump and system components. Perform routine maintenance as required (see SERVICE INSTRUCTIONS).
 12. Provide a means of pressure relief for pumps whose discharge line can be shut-off or obstructed.
 13. **PERSONAL SAFETY:** Wear safety glasses at all times when working with pumps.
 14. Do not add acid or electrolyte to a battery being used – add only water. Consult the battery manufacturer for any additional safety instructions

Electrical Connection

1. Make certain that power source conforms to the requirements of your equipment.
2. When wiring an electrically driven pump, follow all electrical and safety codes, as well as the most recent National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA) in the United States.
3. Model 360 and 370 are only for use on 115 volt (single-phase) and is equipped with an approved 3-conductor cord and 3-prong, grounding-type plug. Model 365 is for 12VDC.
4. To reduce the risk of electric shock, models 360 & 370 should be plugged directly into a properly installed and grounded 3-prong grounding-type receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. The motor must be securely and adequately grounded for your protection against shock hazards! Never connect the green (or green and yellow) wire to a live terminal! SEE SECTIONS 10, 11 & 12 FOR MODEL 365.
5. Where a 2-prong wall receptacle is encountered, it must be replaced with a properly grounded 3-prong receptacle installed in accordance with the National Electrical Code and local codes and ordinances.
6. To ensure a proper ground, the grounding means must be tested by a qualified electrician. Use only 3-wire extension cords that have 3-prong, grounding-type plugs and receptacles that accept the equipment plug.
7. All wiring should be performed by a qualified electrician.
8. Protect electrical cord from sharp objects, hot surfaces, oil and chemicals. Avoid kinking the cord. Replace or repair damaged or worn cords immediately.
9. When using an extension cord make sure wire is of adequate size to minimize voltage drop at the motor. For models 360 & 370, 16 AWG is OK up to 40'.

Distance From Power Source To SST Pump	Recommended Wire Size
1 - 12 Ft.	#14
13 - 24 Ft	. #12
25 - 36 Ft.	#10

10. The SST Pump is not equipped with an inline fuse. Because of the wide variety of applications and mounting situations, an inline fuse has not been permanently installed. In order to provide adequate protection for the motor, an inline fuse and fuse holder **MUST** be installed. The model 365 pump warranty does not cover motor damage caused by overheating. For maximum protection, a fuse of 7 amps is suggested. Fuses and fuse holders are readily available in most hardware, auto and home improvement stores.
11. **GENERAL CONNECTION INFORMATION** to a 12VDC battery.
 - a. Connect **POSITIVE** or **PLUS (+)** lead from the pump to battery first. **POSITIVE** lead of pump is red.
 - b. If pump is to be connected to battery that is installed in a vehicle, connect **NEGATIVE** or **MINUS (-)** lead to a ground away from the battery,

	<p>such as the metal of the vehicle or the negative wiring terminal strip or other negative common point of the battery (away from the battery), if so equipped. Always connect NEGATIVE (-) lead last. NEGATIVE (-) lead of pump is black.</p> <p>c. When DISCONNECTING — Disconnect NEGATIVE (-) lead from the grounded location first. Then disconnect the POSITIVE (+) lead from the battery.</p> <p>12. When attaching pump leads to battery terminals, be sure that the area (bilge of a boat, for instance) is adequately ventilated to prevent an explosion or fire from explosive or flammable vapors that may be present.</p> <p>a. Batteries emit hydrogen gas that is explosive. Avoid smoking, sparks or open flame anywhere in the vicinity of the battery.</p> <p>b. EXPLOSION from battery can cause blindness. Shield eyes when working near any battery.</p> <p>c. Batteries contain sulfuric acid. In case of contact with eyes, skin or clothing FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER; GET MEDICAL ATTENTION.</p>
Disposal	

Reprocessing Instructions	
Point of use:	
Preparation for decontamination:	
Disassembly Instructions:	
Cleaning – Manual:	Clean with a mild PH neutral detergent and rinse with tap water (note do not submerge the pump) – following cleaning wipe down external surfaces of the pump with 70% Isopropyl alcohol
Cleaning – Automated:	
Disinfection:	After cleaning run the pump and hose through a disinfecting solution and see the detergent manufacturer's IFU on contact time for disinfection.
Drying:	
Maintenance, inspection, and testing:	
Reassembly Instructions:	
Packaging:	
Sterilization:	
Storage:	
Additional Information:	SST Instrument Retrieval, SST Instrument Price List

Related Healthmark Products	
Other Product Support Documents	
Reference Documents	
Customer Service contact:	<p>Healthmark Industries Company, Inc 33671 Doreka Fraser, MI 48026 1-586-774-7600 healthmark@hmark.com hmark.com</p>