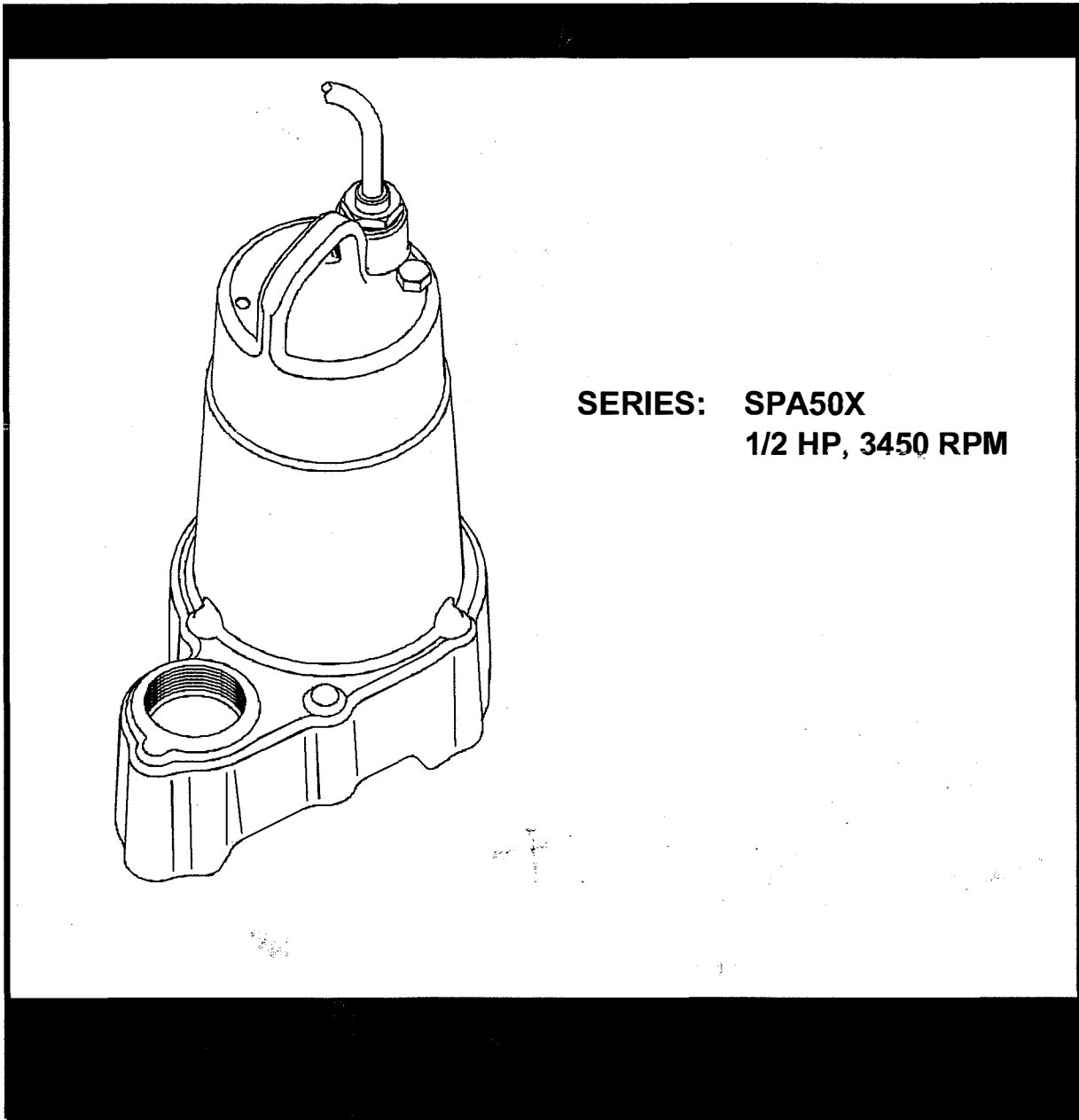




Aquascape Cleanout Pump

Installation Instructions & Specifications



SAFETY FIRST!

Please Read This Before Installing Or Operating Pump. This information is provided for **SAFETY** and to **PREVENT EQUIPMENT PROBLEMS**. To help recognize this information, observe the following symbols:



IMPORTANT! Warns about hazards that can result in personal injury or Indicates factors concerned with assembly, installation, operation, or maintenance which could result in damage to the machine or equipment if ignored.

CAUTION! Warns about hazards that can or will cause minor personal injury or property damage if ignored. Used with symbols below.

WARNING! Warns about hazards that can or will cause serious personal injury, death, or major property damage if ignored. Used with symbols below.



Hazardous fluids can cause fire or explosions, burns or death could result.



Extremely hot - Severe burns can occur on contact.



Toxic Fumes - Breathing can cause nausea, fainting or death.



Hazardous pressure Eruptions or explosions could cause personal injury or property damage



Biohazard can cause serious personal injury.



Hazardous voltage can shock, burn or cause death.



Rotating machinery Amputation or severe laceration can result.



Eye protection required

Only qualified personnel should install, operate and repair pump. Any wiring of pumps should be performed by a qualified electrician.



WARNING! To reduce risk of electrical shock, pumps and control panels must be properly grounded in accordance with the National Electric Code (NEC) or the Canadian Electrical Code (CEC) and all applicable state, province, local codes and ordinances. Improper grounding voids warranty



WARNING! To reduce risk of electrical shock, always disconnect the pump from the power source before handling or servicing. Lock out power and tag.



WARNING! Operation against a closed discharge valve will cause premature bearing and seal failure on any pump, and on end suction and self priming pump the heat build may cause the generation of steam with resulting dangerous pressures. It is recommended that a high case temperature switch or pressure relief valve be installed on the pump body.



CAUTION! Never operate a pump with a plug-in type power cord without a ground fault circuit interrupter.



CAUTION! Pumps build up heat and pressure during operation-allow time for pumps to cool before handling or servicing.



WARNING! Do not pump hazardous materials (flammable, caustic, etc.) unless the pump is specifically designed and designated to handle them.



CAUTION! Do not block or restrict discharge hose, as discharge hose may whip under pressure.



WARNING! Do not wear loose clothing that may become entangled in moving parts.



WARNING! Keep clear of suction and discharge openings. **DO NOT** insert fingers in pump with power connected.



Always wear eye protection when working on pumps.

Make sure lifting handles are securely fastened each time before lifting. **DO NOT** operate pump without safety devices in place. Always replace safety devices that have been removed during service or repair. Secure the pump in its operating position so it can not tip over, fall or slide.

DO NOT exceed manufacturers recommendation for maximum performance, as this could cause the motor to overheat.

DO NOT remove cord and strain relief. **DO NOT** connect conduit to pump.



WARNING! Cable should be protected at all times to avoid punctures, cut, bruises and abrasions. Inspect frequently. Never handle connected power cords with wet hands.

WARNING! To reduce risk of electrical shock, all wiring and junction connections should be made per the NEC or CEC and applicable state or province and local codes. Requirements may vary depending on usage and location.

WARNING! Submersible Pumps are not approved for use in swimming pools, recreational water installations decorative fountains or any installation where human contact with the pumped fluid is common.



WARNING! Products returned must be cleaned, sanitized, or decontaminated as necessary prior to shipment, to insure that employees will not be exposed to health hazards in handling said material. All Applicable Laws And Regulations Shall Apply.

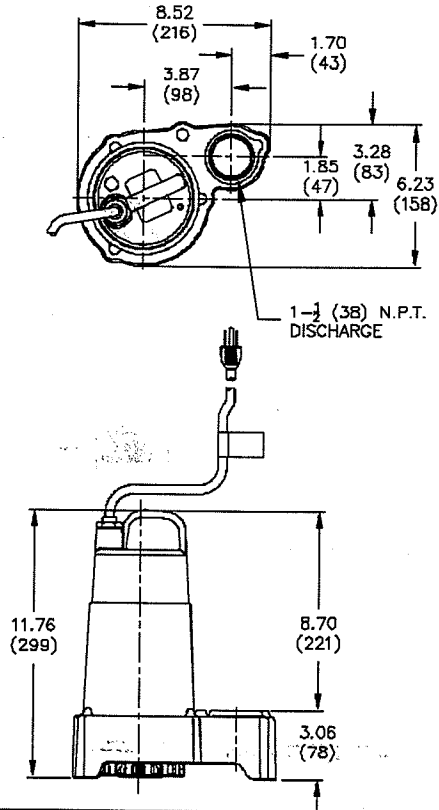
Bronze/brass and bronze/brass fitted pumps may contain lead levels higher than considered safe for potable water systems. Various government agencies have determined that leaded copper alloys should not be used in potable water applications. For non-leaded copper alloy materials of construction, please contact factory.



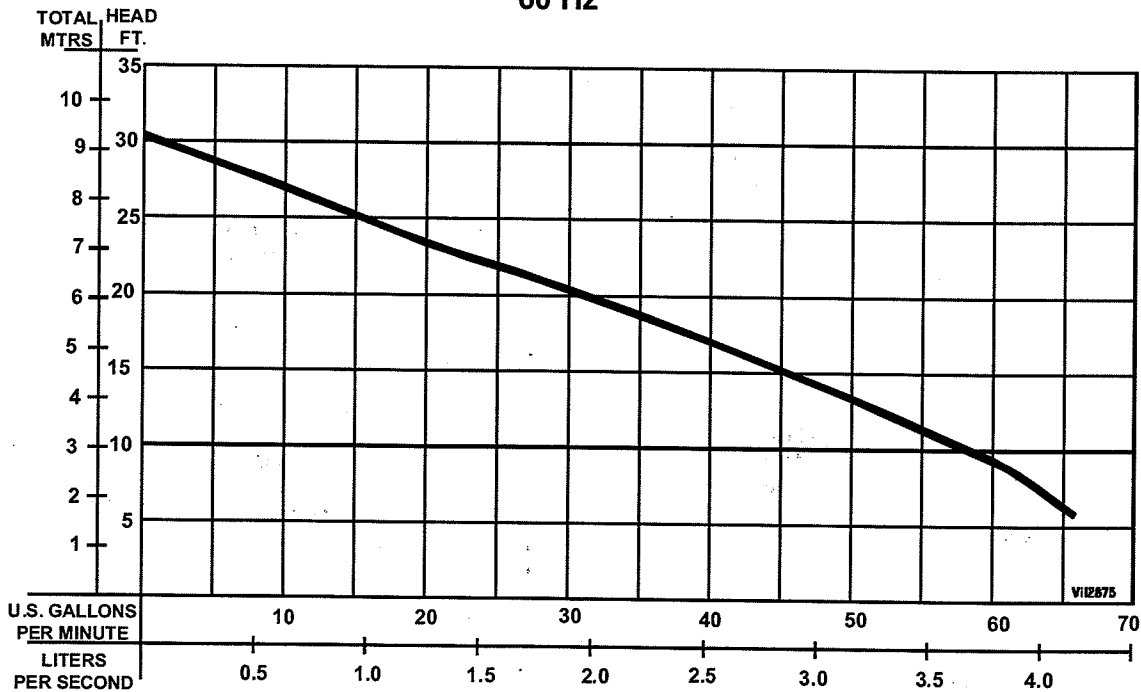
Aquascape Designs, Inc. is not responsible for losses, injury, or death resulting from a failure to observe these safety precautions, misuse or abuse of pumps or equipment.

PUMP SPECIFICATIONS

| | |
|----------------------------|---|
| DISCHARGE: | 1-1/2" N.P.T. Female, Vertical |
| LIQUID TEMPERATURE: | 104°F (40°C) Continuous |
| MOTOR HOUSING: | Cast Iron |
| PUMP STRAINER: | Stainless Steel |
| IMPELLER: Design: | 10 Vane Vortex, with Pump Out Vanes On Back Side. Balanced, ISO G6.3 |
| Material: | Cast Iron |
| SHAFT: | Stainless Steel |
| O-RINGS: | Buna-N |
| HARDWARE: | 300 Series Stainless Steel |
| PAINT: | Air Dry Enamel |
| CABLE ENTRY: | 20Ft (6M) Cord with Plug and Pressure Grommet for Sealing and Strain Relief |
| SEAL: Design: | Single Mechanical |
| Material: | Carbon/Ceramic/Buna-N |
| UPPER BEARING: | Hardware - 300 Series Stainless |
| LOWER BEARING: | Single Row, Ball, Oil Lubricated |
| MOTOR: Design: | Oil-Filled. |
| Insulation: | Class B. |
| ELECTRICAL: | 120 Volt, 1 Phase, 60Hz, 6.8 FLA NEMA Start Code - A |
| WINDING RESISTANCE: | |
| Main: | 4.3 Ω |
| Start: | 12.7 Ω |
| SINGLE PHASE: | Permanent Split Capacitor (PSC). Includes Thermal Overload Protection in Motor |



60 Hz



Testing is performed with water, specific gravity of 1.0 @ 68° F (20°C), other fluids may vary performance.

GENERAL INFORMATION

To the Purchaser:

Check local codes and requirements before installation. Servicing should be performed by knowledgeable pump service contractors or authorized service stations.

The pump is packaged ready for installation and no connections or adjustments are necessary except for attaching discharge piping and plugging in service cord.

Receiving

Upon receiving the pump, it should be inspected for damage or shortages. If damage has occurred, file a claim immediately with the company that delivered the pump. If the manual is removed from the crating, do not lose or misplace.

Storage:

Short Term- For best results, pumps can be retained in storage, as factory assembled, in a dry atmosphere with constant temperatures for up to six (6) months.

Long Term- Any length of time exceeding six (6) months, but not more than twenty four (24) months. The units should be stored in a temperature controlled area, a roofed over walled enclosure that provides protection from the elements (rain, snow, wind blown dust, etc.), and whose temperature can be maintained between +40 deg. F and +120 deg. F. Pump should be stored in its original shipping container and before initial start up, rotate impeller by hand to assure seal and impeller rotate freely.

Electrical Connections:

Power Cable - The cord assembly mounted to the pump must not be modified in any way. This pump comes complete with a 3 wire cord and 3 prong grounded plug that must be connected into a 3 wire grounded Ground Fault receptacle. **DO NOT** remove ground pin from electrical plug. It is **NOT** recommended to use an extension cord with these pumps. **DO NOT USE THE POWER CABLE TO LIFT PUMP.**

Overload Protection:

Automatic thermal overload protects the sealed-in-oil motor. Running dry may overheat the motor and trip the overload. The type of in-winding overload protector used is referred to as an inherent overheating protector and operates on the combined effect of temperature and current. This means that the overload protector will trip out and shut the pump off if the windings become too hot, or the load current passing through them becomes too high. It will then automatically reset and start the pump up after the motor cools to a safe temperature. In the event of an overload, the source of this condition should be determined and rectified immediately. **DO NOT LET THE PUMP CYCLE OR RUN IF AN OVERLOAD CONDITION OCCURS !**

SERVICE AND REPAIR



WARNING ! - DO NOT overfill oil. Overfilling of motor housing with oil can create excessive and dangerous hydraulic pressure which can destroy the pump and create a hazard. Overfilling oil voids warranty.

D-1) Bottom Plate:

Remove screws, and remove bottom plate from volute and remove volute. Clean and examine impeller. If impeller vanes are clogged, or it is excessively worn or broken, the impeller should be replaced.

D-2) Impeller:

After removing the bottom plate the impeller, may be removed by turning impeller counterclockwise to remove from shaft. When reassembling the impeller, turn the impeller clockwise until it bottoms against shaft. Replace volute, bottom plate, and screws.

| COOLING OIL - Dielectric | |
|--------------------------|------------------|
| SUPPLIER | GRADE |
| BP | Enerpar SE100 |
| Conoco | Pale Paraffin 22 |
| Mobile | D.T.E. Oil Light |
| G & G Oil | Circulating 22 |
| Imperial Oil | Voltesso-35 |
| Shell Canada | Transformer -10 |
| Texaco | Diala-Oil-AX |
| Woco | Premium-100 |

WARRANTY REPAIR

INFORMATION NEEDED:

ALWAYS furnish the following information:

1. Pump model number
2. Pump date code

MODEL NUMBER:

This designation consists of numbers and letters which represents the horsepower, motor phase and voltage, and pump design. This number is used for ordering and obtaining information.

DATE CODE:

The Date Code consists of two numbers which are punched holes in the nameplate. This specifies the month and year which indicates the date the unit was built.