

Thank you for purchasing your StormPro™ Pump. To help ensure years of trouble-free operation, please read the following manual carefully.

CAUTION! Read these safety warnings first before installing, servicing, or operating any pump.

Safety Warnings

Before Installation:

This manual contains important information for the safe use of this product. Read this manual completely and follow the instructions carefully. Reasonable care and safe methods relating to the installation and operation of this product should be practiced. Check local codes and requirements before installation.

⚠ **DANGER: Risk of Electrical Shock or Electrocutation.** May result in serious injury or death or fire hazard. Installer must disconnect all electrical sources prior to installation, handling or servicing. Only qualified personnel may install this system. NFPA 70/National Electric Code (NEC) or local codes must be

followed. System must be properly grounded according to NEC. Do not lift pump by power cord.

- ⚠ **DANGER: Biohazard Risk.** Once wastewater source has been connected to system, Biohazard Risk exists. Installer(s) and/or service personnel must use proper Personal Protective Equipment and follow handling procedures per OSHA 29 CFR 1910.1030 when handling equipment after wastewater source has been connected to system.
- ⚠ **DANGER: Risk of Asphyxiation.** Installer(s) and/or service personnel must use proper Personal Protective Equipment and follow OSHA 29 CFR 1910.146 or OSHA 29 CFR 1926. Pump may be installed in a location classified by as a confined space.
- ⚠ **DANGER: Risk of Fire or Explosion.** Do not smoke or use open flames in or around this system. This system is not intended for use in hazardous locations per NFPA 70 National Electric Code. Do not pump flammable liquids. Consult factory for optional equipment rated for hazardous location use.
- ⚠ **DANGER: Cutting Risk.** Risk of serious cutting or amputation exists. Disconnect all power sources prior to servicing pump. Pump may start without warning.
- ⚠ **DO NOT** modify the cord and plug. When using the cord and plug, plug into a grounded outlet only. When wiring to a system control, connect the pump ground lead to the system ground.
- ⚠ **DO NOT** run the pump dry. Dry running can overheat the pump (causing burns to anyone handling it) and will void the warranty.
- ⚠ The pump normally runs hot. To avoid burns, allow it to cool for 30 minutes after shutdown before handling it.
- ⚠ Submersible sump 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. Pump designed to pump sewage consisting of solid wastes mixed with water.

Ion|StormPro SHW50

Submersible Sewage Pump

OPERATION MANUAL

Dated: 09/3/10

Supersedes: None

Document No.: 23833A670

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DO NOT THROW AWAY OR LOSE THIS MANUAL. Keep it in a safe place so that you may refer to it often for the continued safe operation of the product.

Description and Application

These pumps are NOT for use in swimming pools, marine areas or fountains.

The MSP-SHW50 Series pumps are designed for use in residential sewage applications.

Impellers are enclosed two-vane type to handle 2" spherical solids and are made of engineered thermoplastic or bronze. The discharge pipe size is 2" NPT for attachment to most sewage applications.

Air Locking

A sump pump is said to be air locked if water traps air in the pump and it cannot get out, thus preventing the pump from operating.

The pumps have a 1/16" air vent hole in the impeller chamber to let out trapped air. If this hole becomes plugged, the pump may air lock. As a secondary precaution a 1/8" hole should be drilled in the discharge pipe below the check valve. The check valve should be 12 to 18 inches above pump discharge. Do not put check valve directly into pump discharge opening.

Motor Type

The motors used in the pumps are pressed into the cast iron housing and surrounded by dielectric oil for the greatest heat dissipation. The pump uses a permanent split capacitor, 1/2 HP, 1625 RPM motor. The unit has Class A motor insulation, and is single phase, 115 volt with overload protection and uses a lower ball bearing - upper sleeve bearing. The pump has no starting switches and does not require a control panel for simplex installation.

Installation

WARNING: Basin or tank must be vented in accordance with local plumbing codes. These pumps are not designed for and CANNOT be installed in locations classified as hazardous in

accordance with the National Electric Code ANSI/NFPA 70.

CAUTION: Never enter pump chamber without following OSHA guidelines. Sewage water can give off methane, hydrogen sulfide, and other gases that are highly poisonous. For this reason, StormPro™ recommends installing a rail system type quick disconnect on deeper installations.

The discharge pipe must be the same size as the pump discharge, 2" or larger. In order to ensure sufficient fluid velocity to prevent any residual solids from collecting in the discharge pipe, it is recommended that a minimum flow of 2' per second be maintained (21 GPM through 2" pipe and 46 GPM through 3" pipe). It is recommended that PVC or equal pipe is used for corrosion resistance. A full flow (ball or gate) shut-off valve must be installed to prevent backflow of effluent if the pump must be removed for service. A check valve must be installed on sewer systems where conditions allow to prevent backflow and to reduce wear.

Troubleshooting

1. Pump does not run or start when water is up in tank.
 - a. Check for blown fuse or tripped circuit breaker.
 - b. Where control panel is used, be sure H-O-A switch is in the Auto position. If it does not run, turn switch to the Hand position and if the pump runs then the trouble is in the automatic electrical system. Have electrician make electrical checks.
 - c. Check for burned-out motor. Occasionally lightning can damage a motor even with lightning protection.
 - d. Where plug-in cords are used, be sure contact blades are clean and making good contact. **DO NOT USE PLUG-IN CORDS INSIDE A SUMP OR WET WELL.**

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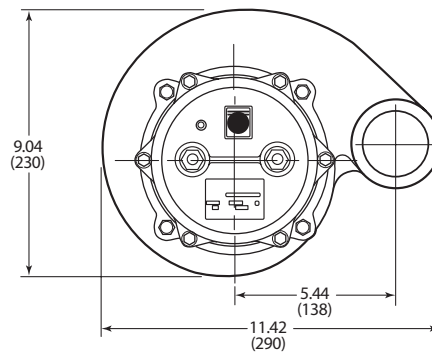
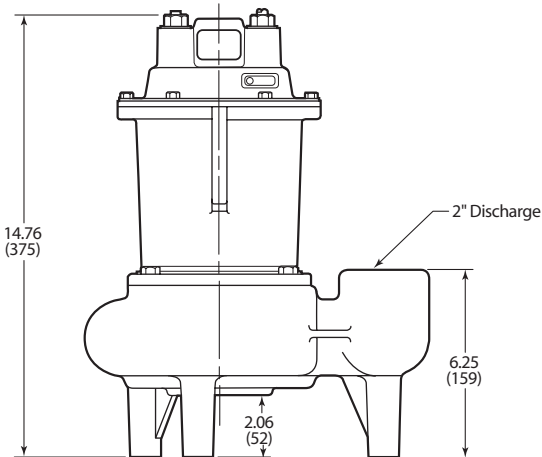
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2. Pump runs but does not deliver flow.
 - a. Check for air lock. Start and stop pump several times. If this does not help it may be necessary to loosen a union in the discharge line to relieve air lock.
 - b. Check valve may be installed backward. Check flow arrow on valve body. Check shut-off valve. It may be closed.
 - c. Check vertical elevation. It may be higher than pump can develop. (see pump curve)

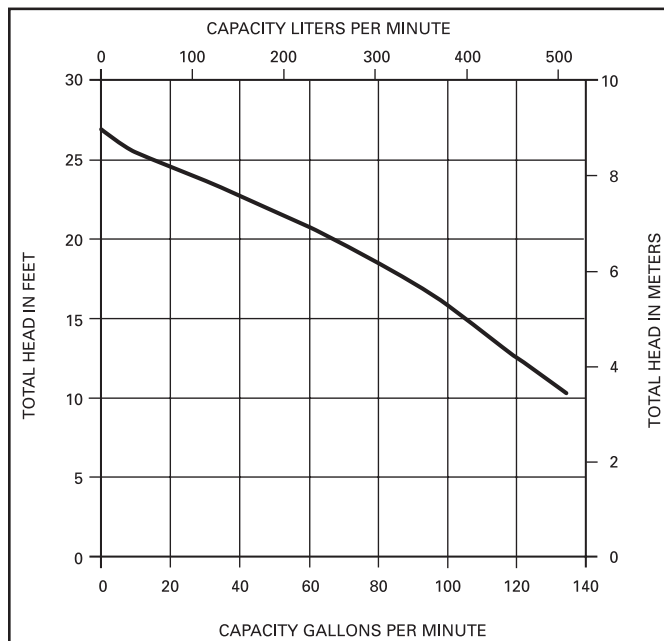
- d. Pump inlet may be plugged. Remove pump to check.

CAUTION: ALWAYS UNPLUG POWER CORDS OR TURN OFF ALL MAIN AND BRANCH CIRCUIT BREAKERS BEFORE DOING ANY WORK ON THE PUMP. If control panel is remote from pump, disconnect lead wires to motor so that no one can turn the circuit breaker back on.

Dimensions (Dimensions in mm)



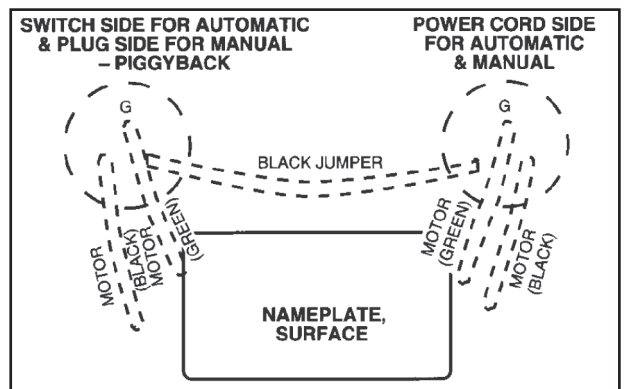
Performance



Motor Data

HP	Speed	Volts	Phase	Winding Resistance in Ohms	Max. Amps	Locked Rotor Amps
1/2	1625	115	1	2.0	9.0	17.6

Wiring Diagram



Limited Warranty

StormPro™ warrants to the original consumer purchaser ("Purchaser" or "You") of **StormPro** products that they will be free from defects in material and workmanship for the Warranty Period of 36 months from date of manufacture.

Our warranty will not apply to any product, that, in our sole judgment, has been subject to negligence, misapplication, improper installation, or improper maintenance. Without limiting the foregoing, operating a three phase motor with single phase power through a phase converter will void the warranty. Note also that three phase motors must be protected by three-leg, ambient compensated, extra-quick trip overload relays of the recommended size or the warranty is void.

Your only remedy, and **StormPro's** only duty, is that **StormPro** repair or replace defective products (at **StormPro's** choice). You must pay all labor and shipping charges associated with this warranty and must request warranty service through the installing dealer as soon as a problem is discovered. No request for service will be accepted if received after the Warranty Period has expired. This warranty is non-transferable.

STORMPRO SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, OR CONTINGENT DAMAGES WHATSOEVER.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE FOREGOING WARRANTIES SHALL NOT EXTEND BEYOND THE DURATION EXPRESSLY PROVIDED HEREIN.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on the duration of an implied warranty, so the above limitations or exclusions may not apply to You. This warranty gives you specific legal rights and You may also have other rights which may vary from state to state.

This warranty supersedes and replaces all previous warranty publications.



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