



TidalWave SH-SERIES PUMPS

Operating Manual

Includes Pumps: SH1450

SH2050

SH3600 SH5000

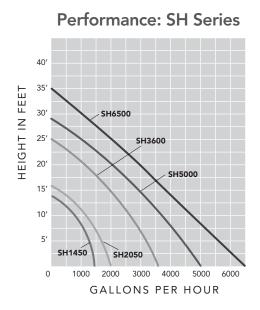
SH6500



Introduction

Thank you for selecting the Tidal Wave SH1450, SH2050, SH3600, SH5000, or SH6500 series pumps. Before using this pump please take a moment to review this manual.

To avoid an accident do not use the pump in any way other than as described in this manual. Please note the manufacturer cannot be responsible for accidents arising because the product was not used as prescribed. After reading this manual keep it as a reference in case questions arise during use.



	SH1450	SH2050	SH3600	SH5000	SH6500
Amps	2.1	2.8	5.5	9	9.5
Watts	240	320	575	950	1000
Discharge Size	1 1/4"	1 1/4"	1 1/4"	1 1/2"	1 1/2"
Weight	9 lbs.	10 lbs.	13 lbs.	16 lbs.	16 lbs.
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1′	1450	2050	3600	5000	6500
5′	1170	1700	3245	4350	5710
10′	650	1130	2750	3620	4875
15′	0	235	2090	2800	4000
20′	0	0	1210	1875	3080
25′	0	0	0	825	2110
30′	0	0	0	0	1085
35′	0	0	0	0	0

Best Efficiency Point

Recommended Operating Range

Prior to Operation and Installation

- When the pump is delivered, first perform the following checks.
- Check for any damage to pump and power cable that may have occurred during the shipment.
- Check the model number to make sure it is the product that was ordered and verify the voltage and frequency are correct.

Caution

- DO NOT operate this product under any condition other than those for which it is specified. Failure to observe this precaution can lead to electrical shock, electrical leakage, fire, water leakage or other problems.
- The pump is a 100/120 volt 60 Hz pump, please only use with a power supply voltage within 100-120 volt 60 Hz.
- Never place your hand or any object in or near the inlet opening while
 this equipment is operating. If pump inlet is clogged, always turn off
 the power supply and wait until the motor is completely stopped before
 attempting to remove any clogged material.
- Please make sure that the power plug and the AC outlet receptacle is protected and away from water or pump discharge hose to prevent accidental electric shock or short circuit.
- Always operate the pump completely submerged in water.
- Avoid dry operation, which will not only lower performance but can cause the pump to overheat/malfunction, leading to electrical leakage, shock or premature failure.

CAUTION:

THIS PUMP IS TO BE USED IN A CIRCUIT PROTECTED BY A GROUND CIRCUIT INTERRUPTER.

ATTENTION:

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CAUTION:

THIS PUMP HAS BEEN EVALUATED FOR USE IN WATER ONLY.

WARNING:

RISK OF ELECTRIC SHOCK - THIS PUMP IS SUPPLIED WITH A GROUNDING CONDUCTOR AND GROUNDING-TYPE ATTACHMENT PLUG. TO REDUCE THE RISK OF ELECTRIC SHOCK, BE CERTAIN THAT IT IS CONNECTED ONLY TO A PROPERLY GROUNDED, GROUNDING TYPE RECEPTACLE.

Electrical Safety

- Electrical wiring should be installed by a qualified electrician in accordance with all applicable safety regulations. Incorrect wiring can lead to a pump malfunction, electrical shock or fire.
- Pumps should operate on a designated, 110/120 volt circuit rated at 15 Amps (minimum).
- Pump must be protected by a ground fault circuit interrupter (GFCI).
- Pump must be plugged into a standard, properly grounded, three pronged outlet.
- Do not cut the electrical cable. If a cable with cut insulation or other damage is submerged in water, there is danger of water seeping into the pump motor and causing a short. This may result in damage to the pump, electrical shock or fire. Altering the electrical cable in any way will void the warranty.
- Never move or handle the pump by pulling on the electrical cable.
 Make sure the electrical cable does not become excessively bent or twisted, does not rub against a structure in a way that might damage it, and does not come in contact with heated surfaces.

Operation

- SH-Series pumps are for use in water only. Water temperature should never exceed 95 degrees F.
- SH-Series pumps must not be used to pump salt water, sewage, flammable or corrosive liquids, greases, oils or food waste.
- Pay careful attention to the water level while the pump is operating.
 The pump must be fully submersed at all times of operation. The pump must never be allowed to run dry.

 In case of excessive vibration, unusual noise or odor, turn off the power immediately and consult your nearest dealer.

Motor Protection System

- The pump has a built-in motor protection system. The following reasons may cause the pump to stop automatically regardless of water level.
 - ▶ Motor overheating
 - ▶ Excessive current
 - ► Change in voltage polarity
 - ▶ Open-phase operation or operation under constraint
- Repeating cycles of stopping and restarting will damage the water pump. Do not continue operation at low lift, low water level, or while the inlet is clogged with debris. Not only will performance suffer, but also such conditions may cause noise, heavy vibration, and pump failure.

Maintenance and Inspection

 Regular maintenance and inspections are a necessity for continued efficient functioning. If any abnormal conditions are noticed, refer to the section on Troubleshooting and take corrective measures immediately.

Monthly Inspection

- Check for any drop in performance. Reduced performance is usually caused by debris blocking the pump intake.
- Detach the power cable from the receptacle or turn off the power supply (circuit breaker).
- Disconnect the pump discharge and remove the pump from the water.
- Remove any accumulated debris from the surface of the pump, inlet and impeller.
- Do not disassemble the pump for any reason. Disassembly will void the pump warranty. Refer operating and maintenance problems to a qualified technician.

Winterizing

- Under no circumstances should the pump be left in frozen water.
- When the pump is out of use for an extended period, wash it and dry it thoroughly, then store it indoors.

Note: Always run a test operation before putting the pump back into operation. When the pump is left installed in water it should be run at regular intervals (about once per week).

Warranty

All Tidal Wave Pumps carry a two year limited warranty. This limited warranty is extended solely to the original purchaser commencing from the date of original purchase receipt and is void if any of the following apply:

- The pump has been run while not fully submersed causing the thermal protection to trip. Skimmers using inadequate vertical filtration may create "run dry" conditions.
- The pump was not run on a dedicated circuit.
- The cord has been cut or altered.
- The pump has been misused or abused.
- Serial number tag has been removed.
- The pump has been fully or partially disassembled.

Warranty Claims

• In case of warranty claims, pump should be returned to place of purchase accompanied by original receipt.

Troubleshooting Guide

Always turn off power before inspecting the pump. Failure to observe this precaution can result in a serious accident.

Before ordering repairs, carefully read through this instruction booklet. If the problem persists, contact your dealer.

Problem	Possible Cause	Possible Solution		
Pump does not start	Power is off	Turn power on		
	Power failure	Check power supply or contact local power company		
	Voltage drop/ Overload	Check/Replace the GFI (Ground Fault Interrupter)		
	Power cord is not connected	Connect power cord		
Pump stops after starting	Pump is overheating	Submerge pump/Raise water level/ Allow pump to cool		
	Power/Current overload	Check length/size of power cable. Check or replace GFI		
	Impeller is blocked	Remove debris from the impeller chamber		
Diminished flow rate or no water flow	Air lock	Submerse pump in a horizontal position with the discharge facing up		
	Obstruction in pump or piping	Clear obstruction		
	Low water level	Stop operation/Raise water level		



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