



# TidalWave<sup>2</sup>

HYBRID PUMP SERIES

## Operating Manual

Includes Pumps:

TW1200

TW1900

TW2400

TW3700

TW4800

TW6000



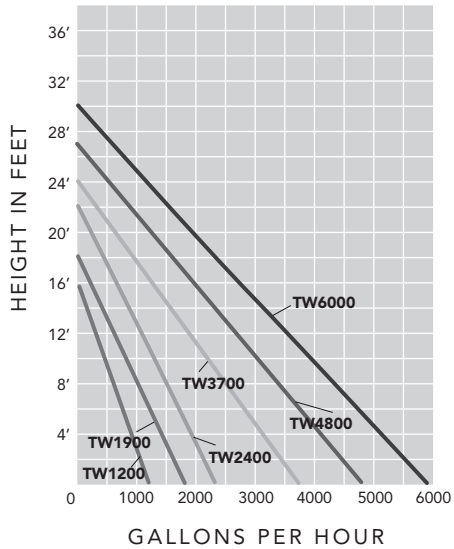
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# Introduction

Thank you for selecting the TidalWave TW1200, TW1900, TW2400, TW3700, TW4800, or TW6000 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.

## Performance: TW2 Series



	TW1200	TW1900	TW2400	TW3700	TW4800	TW6000
Watts	110	130	175	355	425	495
Discharge Size	1.5"	1.5"	1.5"	1.5"	1.5"	2"
Inlet Size	1.5	1.5"	1.5"	2"	2"	2"
Shut Off in Feet	16	18	22	24	26	29
G P H   A T   H E A D   H E I G H T						
1'	1290	1900	2400	3730	4800	6000
5'	1080	1440	1950	3010	4000	5040
10'	720	900	1390	2230	3140	4050
15'	180	360	825	1425	2228	3000
20'	0	0	220	660	1260	1930

## 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:**  
CETTE POMPE DOIT ETRE BRANCHEE A UNE DERIVATION PROTEGEE PAR UN DISJONCTEUR DIFFERENTIEL.
- **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.
- 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

- Tidal Wave 2 pumps are for use in water only. Water temperature should never exceed 95 degrees F.
- Tidal Wave 2 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 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 screen.
- Remove the inlet screen and inspect the impeller.
- The impeller should spin freely. If the impeller feels tight or gritty when spun, please refer to the cleaning instructions on page 7.

## 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.

## Warranty Claims

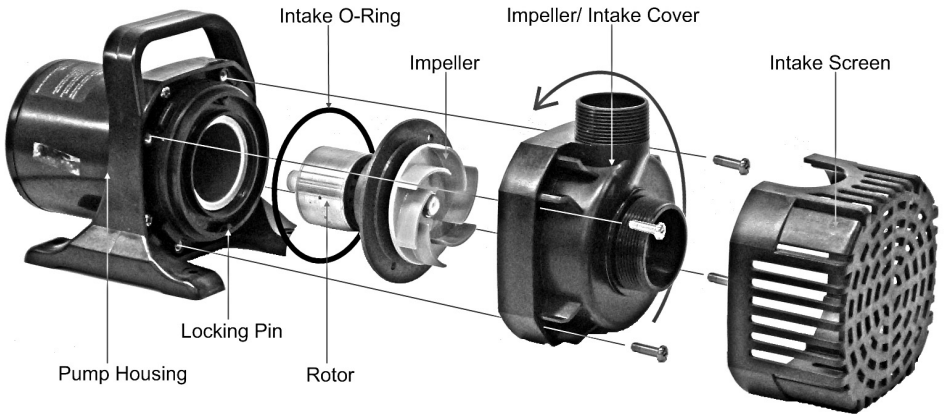
- In case of warranty claims, pump should be returned to place of purchase accompanied by original receipt.

## Cleaning

Asynchronous Pumps will require periodic cleaning of the impeller assembly. Please follow the directions below for proper cleaning procedures.

- Remove the intake screen.

- Remove the four screws using a #2 Phillips screwdriver.
- Rotate the impeller/ intake cover counter clockwise 1/4 turn and remove by pulling straight out.
- Remove the impeller assembly



**NOTE:** If debris has accumulated around the rotor, the impeller may feel tight. Rotate the impeller back and forth while applying outward pressure until the impeller assembly wiggles free.

- Inspect the rotor and stator sleeve for built up debris. Often in hard water, well water or pond-free applications, debris may appear as a crusty film around the rotor. Remove the film using a scrub brush or scouring pad.
- Inspect the intake O-ring for nicks or breaks.
- Re-assemble the pump by installing the intake O-ring and inserting the impeller assembly. Make sure to line-up the impeller assembly with the two locking pins on the top and bottom of the pump housing.
- Replace the impeller/ intake cover and attach using the 4 screws.
- Replace the intake screen.

# 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/Clean impeller
	Power/Current overload	Check length/size of power cable. Check or replace GFI
	Intake is blocked/ Impeller needs cleaned	Remove debris from the pump intake. Refer to page 7 for cleaning instructions.
Diminished flow rate or no water flow	Impeller needs cleaned	Refer to page 7 for cleaning instructions
	Obstruction in pump or piping	Clear obstruction
	Low water level	Stop operation/Raise water level

