

# TotalFlo<sup>TM</sup>

# Sump Pump

# Installation and Operating Instructions

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.



Children should be supervised to ensure that they don't play with appliance.



**CAUTION:** This pump **MUST** be installed with a suitable earth leakage circuit breaker (E.L.C.B.) or residual current device (R.C.D.) with a rated residual operating current <30mA.



These Instructions must be delivered with the pump to the operator.



The oil in the seal chamber should be periodically checked and replaced. This work should be done by a suitably qualified Service Dealer every 2,000hrs of operation or every 12 months, whichever occurs first.

## MODELS

**VORTEX:** TF180S & TF230S

Suffix: M = Manual

Voltage: 220/240V 50Hz Single Phase

Max. Total Head: TF180S = 5m

TF230S = 8m



**SOLAR WARNING: This Equipment is not suitable for use with Solar Panel Power Supply.**

## Installation & Operating Instructions

The TotalFlo range of Submersible Sump Pumps are suitable for pumping small soft solids (up to 18mm Max.) in fluid suspension. They are extremely quiet in operation which makes them ideal for applications within residential areas for sullage pits, waterfalls and general drainage.

### Other Ideal Applications are:

Lift Wells, Car Park Sumps, Basements, Cable Pits, etc.

This Submersible pump has been factory checked prior to delivery; however, please check for any damage during transport. After Sales Service is available from your TotalFlo reseller.



**DO NOT:**

Run the pump dry.  
Attempt electrical repairs, unless qualified to do so.  
Run the pump with the motor fully exposed for long periods.  
Install the pump on soft or loose ground.  
Operate the pump if the inlet is submersed by sand or debris.  
Lift or carry the pump by the power cable.



**Not intended to be used for swimming pool. Note that these pumps may be used for the repair or maintenance of swimming pools, but never with people present in the water.**

## Suitable Fluids

This pump is designed to pump waste water, clean water and water containing mild pollutants at ambient temperatures. It is **not suitable** for pumping flammable or corrosive fluids, nor fluids at elevated temperatures (Max. 40°C). If you are unsure as to the suitability of the fluids, contact your TotalFlo dealer for advice.



**This pump is not a slurry pump, it is not designed to pump hard solids (eg stones) nor fluids containing excessive amounts of abrasive materials. Soft solids up to 18mm diameter are suitable to pump in solution with water.**

## Installation

This TotalFlo pump is completely submersible up to 5 metres and should be placed on a solid flat surface (if not available, sit the pump on timber or house bricks) in the vertical position. Pump should always be installed so that it will be clear of settled silt or debris. It is recommended to fit the biggest diameter hose possible, to obtain the best flow from the pump. To remove or lift the pump from deep wells or pits connect a rope to the handle during installation. Automatic versions should be placed in a sump which has adequate dimensions so as not to restrict the movement of the float switch.

Automatic controlled pump units have float switches factory set to provide the correct high (ON) and low (OFF) liquid levels.

## Motor Cooling

All models rely upon water flow around the motor shell for correct motor cooling.

All models are suitable for partially submerged operation only for short periods up to 10 minutes.

Where the pump is required to operate for longer than 10 minutes partially submerged, or where water flow over the motor may not be assured, it is advisable to direct a low flow (2-3lpm) cooling jet of water over the motor shell (eg. when installed in large tanks or ponds).

## Power Connection

A power connection point should be provided by a qualified electrician, in compliance with the requirements of AS 3000. Single phase models are rated for 220/240 Volts, 50Hz operation, and may be connected to a standard 10 amp power outlet.

All single phase models have automatic reset thermal overload protection built in, ie. should overload on motor cause thermal to open circuit and switch motor off, it will automatically reset and switch the motor on when the motor has cooled down sufficiently, usually within a few minutes.



**NOTE:**

**If the cord is damaged, the appliance should be repaired by a qualified TotalFlo Service Centre. The supply cord must only be replaced by a suitably qualified person with a genuine TotalFlo replacement supply cord.**

**NOTE:**

1. Long extension leads should be avoided as they often have insufficient current carrying capacity to run electric motors, hence they can cause substantial voltage drop and operating problems.
2. Minimum voltage at the electric motor must not fall below 216 Volts for single phase, otherwise motor damage may result which is not claimable under guarantee.
3. If the electrical fittings in your country make it necessary to remove the plug (where fitted) from the lead fitted to the motor, care should be taken to ensure that the earth conductor green/yellow in the lead is properly connected to a good earth. This work should be undertaken by a suitably qualified person.
4. Expansion and contraction inside the motor due to heating and cooling is vented via the lead. The lead end must never be sealed off, but must always be open to the atmosphere.
5. **ALWAYS** disconnect pump from power supply prior to commencing ANY maintenance or adjustment.

## Fault Checks

**(A) Pump will not start:****(1) Manual Type**

- Check to ensure power is available and the outlet is switched ON.
- Blown fuse or tripped circuit breaker (replace/reset or call an electrician).
- If an extension lead is fitted, check connection.

**NOTE:**

If fitting an extension lead a **QUALIFIED ELECTRICIAN** should be consulted to ensure correct rating is provided. Extension leads are not allowed for permanent installations.

- Impeller jammed - **disconnect from power supply**, and ensure impeller is free to rotate.
- Thermal cut-out switch has not reset (wait 5 minutes).
- If pump does not start from new then the seal has possibly stuck due to the length of time it has been standing since it was manufactured. In this case, disconnect from power supply, remove bottom strainer and turn the impeller nut clockwise, this will release the initial friction on the seal and once the power is connected will allow the pump to work.

**(2) Auto Type (with float switch)**

- Check all in (1) above.
- Float switch jammed against sump side wall.
- Insufficient liquid to place the float switch in the ON position, i.e. higher than the horizontal.

**(B) Pump runs, but does not pump water or pumps insufficient water:**

- Insufficient liquid in sump.
- Strainer, impeller and/or discharge pipework blocked.
- Impeller damaged.
- Air lock in discharge pipework. Ensure pump is filled with water.
- Excessive back pressure or lift.

**(C) Pump will not stop:****(1) Manual Type**

- Must be switched off at the power supply.

**(2) Auto Type (with float switch)**

- Float switch is prevented from moving to the fully down position.
- Float switch may be faulty.

**(D) Pump runs for short periods only (the overload protection has tripped):**

- Some foreign body is clogging the impeller.
- The liquid temperature is too high.
- Pump operating in non submerged position or with no water movement around motor.
- Electrical fault.

Do not run the pump dry as this will damage the seal and reduce the life of the pump.

*Where hair, lint or other string-like material may be in the water, the pump should be regularly checked. It might become necessary sometimes to clean the suction strainer, impeller and/or discharge pipework.*

With simple cleaning and regular examination this pump should give reliable service. In the event of seal failure, pollution of the pumped liquid could occur due to leakage of the seal lubricant.

# TotalFlo™ Repair or Replacement Guarantee

In the unlikely event in Australia that this TotalFlo product develops any malfunction within two years of the date of original purchase due to faulty materials or manufacture, TotalFlo will at our option repair or replace it for you free of charge, subject to the conditions below.

Should you experience any difficulties with your TotalFlo product, contact the TotalFlo Dealer from which you purchased the TotalFlo product. Your TotalFlo Dealer will resolve your difficulties or, if the product is faulty or defective, advise you on how to have your TotalFlo product repaired, obtain a replacement or a refund.

Your TotalFlo Two Year Guarantee naturally does not cover normal wear or tear, replacement of product consumables (i.e. mechanical seals, bearings or capacitors), loss or damage resulting from misuse or negligent handling, improper use for which the product was not designed or advertised, failure to properly follow the provided installation and operating instructions, failure to carry out maintenance, corrosive or abrasive water or other liquid, lightning or high voltage spikes, or unauthorized persons attempting repairs. Where applicable, your TotalFlo product must only be connected to the voltage shown on the nameplate.

Your TotalFlo Two Year Guarantee does not cover freight or any other costs incurred in making a claim. Please retain your receipt as proof of purchase; you **MUST** provide evidence of the date of original purchase when claiming under the TotalFlo Two Year Guarantee.

TotalFlo shall not be liable for any loss of profits or any consequential, indirect or special loss, damage or injury of any kind whatsoever arising directly or indirectly from TotalFlo products. This limitation does not apply to any liability of TotalFlo for failure to comply with a consumer guarantee applicable to your TotalFlo product under the Australian legislation and does not affect any rights or remedies that may be available to you under the Australian Consumer Legislation.

In Australia, you are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Should your TotalFlo product require repair or service after the guarantee period; contact your nearest TotalFlo Dealer.

**TotalFlo**™

P/N 403430-1

\* Installation and operating instructions are included with the product when purchased new.