

# SUBMERSIBLE PUMPS OWNERS MANUAL

## CONTACT US

**T** 1300 798 022

sales@claytonengineering.com.au

### BRISBANE

26 French Avenue,  
Brendale, Qld, 4500

**F** 07 3881 2780

### MELBOURNE

24 Healey Rd,  
Dandenong South, Vic, 3175

**F** 03 9706 9533

### PERTH

24 Crocker Dr,  
Malaga, WA, 6090

### NEW ZEALAND

158 Ellis Street,  
Frankton, Hamilton, 3242

**P** +64 7 847 3562

**F** +64 7 847 3540

**E** orders@solonz.co.nz



## • INSTALLATION • OPERATION • TROUBLE SHOOTING •

For any assistance or after sales service call Claytech on our toll free number **1300 798 022**  
Please have a look at further quality Claytech products at [www.claytech.com.au](http://www.claytech.com.au)

## • INSTALLATION • OPERATION • TROUBLE SHOOTING •

For any assistance or after sales service call Claytech on our toll free number **1300 798 022**  
Please have a look at further quality Claytech products at [www.claytech.com.au](http://www.claytech.com.au)

# 1. SAFETY INSTRUCTIONS

Carefully read these instructions before starting the pump.

For safety reasons, persons who have not read the instructions shall not be authorised to use the pump. A drainage pump is an electrical appliance and needs due care and responsibility when operating. The power cable should never be used to transport or shift the pump. Always use the handle of the pump for these operations.

The pump cannot be used to pump salty water, sewage, inflammable, corrosive or explosive liquids (i.e. petrol, fuel, diluents), grease, oils or food stuff.

In case power cable is damaged, to avoid any risk, replacement must be done by the manufacturer of the pump or by an authorised service centre.

Never remove the plug by pulling on the power cord.

Before handling the pump always remove the plug from the power socket.

Before starting the pump, verify that:

- The electric system is equipped with a Residual Current Device (RCD) with a rated residual operating current of no greater than 30 mA.
- The voltage and frequency shown (240V/50Hz) on the technical nameplate of the pump correspond to the data of the electric supply system.
- The power cable of the pump is not damaged
- The electric connection is done in a dry area at a safe distance from possible flooding.
- Pump is suited for application: grey water / clean water , pressure requirements etc.

# 2. TECHNICAL DATA & SUITABLE APPLICATIONS

Model	BlueVort7	BlueVort9	ProVort540	BVP	ProSub6	ProSub9
Power(w) P1			650	1000	300	600
Power(w) P2	180	450	435	700	200	400
Max head (m)	7	8.5	9	11	6.5	9
Max flow(l/min)	135	200	230	320	125	195
Max soft solids handling (mm)	15	25	30	38	5	5
Water quality	grey	grey	grey	grey	filtered grey	filtered grey

# 6. MAINTENANCE AND CLEANING

Before doing any maintenance on the pump, always remove the plug from the power supply.

Wear protective cloths when doing any maintenance work, gloves, protective eye wear etc.

Periodically, it is advisable to make sure that no dirt, leaves and etc. has accumulated in the collection pit.

It is absolutely necessary to protect pump from freezing. If the temperature falls below the freezing point, remove the pump from the liquid and store it in a safe place where it cannot freeze.

# 7. WARRANTY POLICY

Clayton Engineering warrant this product for 2years from the date of purchase. The warranty covers manufacturer's defects in material or workmanship. The warranty does not cover malfunctions due to misuse or due to failure to follow the instructions in the instruction manual. Any alterations to the product are to be performed by a Clayton Engineering approved service agent. Any repairs performed by non approved personnel may void the warranty.

To make a claim, contact Clayton Engineering, 26 French Ave, Brendale, Q, 4500 on phone 1300 798 022 or email [sales@claytonengineering.com.au](mailto:sales@claytonengineering.com.au). You will be asked to provide proof of purchase and then will be instructed on the procedure for repairing or replacement of the product under warranty. All costs incurred for repair or replace, and additional claims can be discussed at this stage.

This warranty is provided in addition to other rights and remedies you have under law: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. 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.

1st January 2012.

Problem	Possible Cause	Solutions
Pump delivers little or no water	a) Suction screen on some models could be clogged.	a) Clean suction screen
	b) Air bubble in the pump body	b) Submerged pump should be tilted and gently shaken with discharge pipe open.
	c) Water level under the suction minimum.	c) Stop pumping till adequate water available.
	d) Discharge pipe or impeller partially clogged	d) Remove any obstructions.
	e) The required head too high for pumps capability.	e) Source correct pump for job.
The pump stops running (possible intervention of the thermal overload switch)	a) Is fluid being pumped to dense causing the motor to overheat.	Disconnect the power cord, correct the reason for overheating; then wait until the pump is cooled, plug the cord and resume operation.
	b) Water temperature of water too high.	
	c) Solid body obstructing the impeller.	
	d) Powersupplydoesn't comply with the name plate's data.	
The pump does not stop	a) The pump is not being stopped by float	a) Make sure the float can move freely and is not hooked on edge or sitting on bottom of tank. Adjust length of float using cable clip if necessary.

Model	BlueSub6	BlueSub15	BlueDiver20	BlueDiver30	BlueDiver40
Power(w) P1	220	750	600	750	950
Power(w) P2	195	550	550	650	750
Max head (m)	5.5	14.5	24	34	45
Max flow(l/min)	115	170	68	68	68
Max soft solids handling (mm)	0	0	0	0	0
Water quality	Clean	Clean	Clean	Clean	Clean

Model	SubPond 200	SubPond 300	SubPond 700
Power(w) P1	200	280	700
Power(w) P2	140	200	550
Max head (m)	6.5	7	10
Max flow (l/min)	105	140	240
Outlet Size	1¼"	1¼"	1¼"
Cable Length (m)	8	8	8
Weight (kg)	5	5	6

**BlueVort 7 & 9, ProVort540, BVP** are open vortex design suitable for grey water and can handle suspended solids.

**ProSub 6 & 9** are suited for screened grey water like domestic washing machine.

**BlueSub 15** has been especially designed for high pressure discharge from water treatment systems. (clean water stage)

**BlueDiver 20, 30 & 40** are multistage submersible pumps ideal for the clean water stage of packaged waste water treatments plants and drainage application where a high head is required.

**SubPond 200, 300, 700** is ideal for running waterfalls or ornamental fountains. Designed for continuous operation in either vertical or horizontal positions.

These pumps can handle water temperature up to 35°C. Submersible pumps with float are not suitable for continuous operation.

### 3. OPERATION

The pump must only be used when immersed in water. If the water runs out the pump must be stopped by either the float switch or turning off the power switch.

The pump must never be allowed to run dry.

Never leave the pump in operation when the delivery pipe is clogged.

The pump must be placed in a stable position inside a collection pit or in the lowest part of the place where it is to be installed.

All pumps except the ProSub6&9 have an adjustable float switch which starts and stops the pump automatically.

The water level that prompts the starting and stopping of the pump can be adjusted by modifying the length of the float switch cable between the support and the float switch. Float cable must be clipped into the float support and at a length that float cannot touch bottom of pit.

The length of the float cable must never be shorter than 10cm.

The float must be able to move freely while the pump is running and not get hooked on side of pit, ensure dimensions of pit are suitable.

**ProSub6 & 9** have integrated float switch specifically designed for uses in narrow pits with dimensions as small as 20cm x 20cm. The water level that prompts the starting and stopping cannot be adjusted in these models. These two models have an automatic or manual operation.

Automatic mode: The integrated float switch starts and stops the pump automatically. To select this mode push the pumps T shaped, vertical lever into the down position.

Manual operation: To start the pump, lift the T shaped, vertical lever. In this position the pump will draw down to 2-3mm. Push lever back down to stop the pump.

### 4. STARTING THE PUMP

First time the pump is used, if it has a side outlet it should be placed on its side under water to allow any air inside the pump to come out of discharge outlet.

Once the air is removed fit the discharge pipe to outlet.

Make sure pump is secure in pit and cannot fall over.

Adjust float lead length if necessary.

Turn power supply on to pump.

#### Protection against overload conditions

The pump is equipped with a thermal overload protector. If the motor overheats, the thermal protector automatically stops the pump. Cooling time is around 15-20min, after which the pump automatically restart. If the overload cut-out is tripped, it is absolutely necessary to search for the cause and eliminate it.

### 5. TROUBLESHOOTING

Before performing any troubleshooting operation, it is necessary to disconnect the pump from the power supply (by removing the plug from socket).

Problem	Possible Cause	Solutions
The pump does not start	a) No power going to pump	a) Plug lead securely into socket, check that power socket is working.
	b) Float switch has not enabled pump.	b) Make sure float is not jammed and that water depth is adequate.
	c) Impeller jammed	c) Disconnect from power and check impeller is free to rotate.