



VFB-S75

SUBMERSIBLE PUMP INSTALLATION MANUAL



**A smooth day is a good day.
That's why Vada is dedicated
to creating pump solutions
that you can count on. With
a focus on easy selection, simple
installation and high quality, you
can hold your head high knowing
your reputation is protected.
It's Vada. Performance simplified.**

THANK YOU



Thank you for purchasing the Vada Flow Boss Submersible Pump VFB-S75! Record the product details here and leave with the owner.

Date purchased:

Purchased from:

Purchase invoice number:

Product serial number:

Product model number:



KNOW YOUR PRODUCT

VFB-S75

The Vada VFB-S75 is a silent multistage submersible pump equipped with a highly efficient hydraulic system that results in lower energy use and lower operating costs while delivering outstanding performance.

32mm FI outlet port

Stainless steel motor shaft and pump casing

20m Power cable



- Built to handle clean water with no suspended solids or abrasive material
- Optimal operating range: 28–42 metres head, 32–48 litres per minute
- Max water temp: 40°C
- Max submersion depth: 20m
- IP68 (Motor)

HELPFUL HINTS

- If you're installing the VFB-S75 with the VFB-DSU, you will require a wall mount kit.

COMPATIBLE VADA PRODUCTS:

The Vada Flow Boss Submersible Pump VFB-S75 should be installed with either a Vada Flow Boss Auto Pressure Control (VFB-APC) OR a Vada Flow Boss Digital Water Switching Unit (VFB-DSU).

If using tank water only, you will also require a Vada Flow Boss Auto Pressure Control.

If you are using tank and mains water source switching, you will require either the Vada Flow Boss Digital Water Switching Unit or the Vada Flow Boss Mechanical Water Switching Unit.



□ Vada Flow Boss Automatic Pressure Control VFB-APC



□ Vada Flow Boss Digital Water Switching Unit VFB-DSU

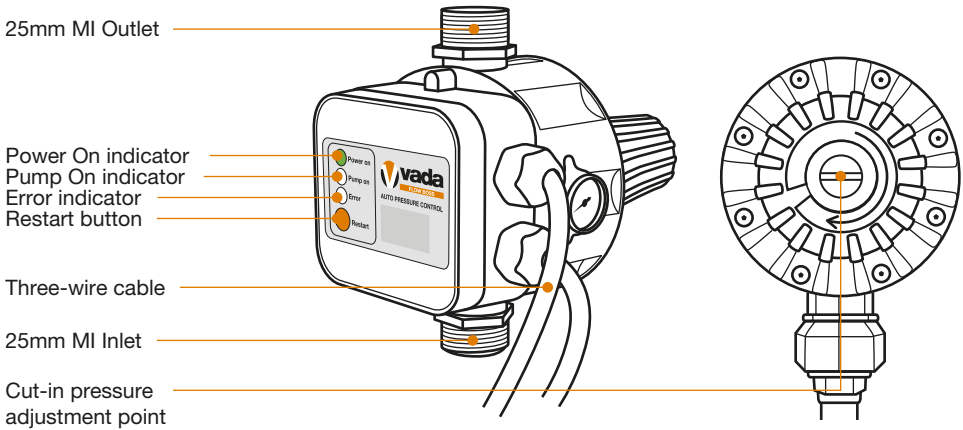


□ Vada Flow Boss Mechanical Water Switching Unit 25mm VFB-MSU25

KNOW YOUR PRODUCT

VFB-APC

The Vada Flow Boss Auto Pressure Control VFB-APC gives you perfect control of household pressure pumps, guaranteed. Designed with an LED light panel to signal the state of operation, a built in pressure gauge to allow for adjustable cut-in pressure and a 24 hour reset function for hassle free operation.



SPECIFICATIONS

VFB-APC

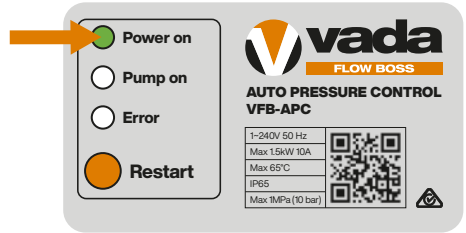
- Inlet: 25mm MI
- Outlet: 25mm MI
- Max operating pressure: 1000kPa / 10 bar
- Minimum pump pressure: 250kPa / 2.5 bar
- Min-max water temperature: 1°C–65°C
- Min-max ambient temperature: 1°C–40°C
- Supply voltage: 1~240V 50Hz
- Cut-in pressure: 150–300kPa / 1.5–3 bar
- Max power: 1.5kW
- Max current: 10A
- IP rating: IP65

HELPFUL HINTS

- You will need a flathead screwdriver if adjusting the cut-in pressure.
- Ensure your pump set up is equipped with two isolation valves. This allows for fuss free troubleshooting on suction and discharge lines, should you need it.

Green light

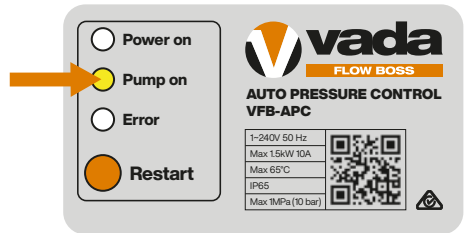
The VFB-APC is connected to the power supply successfully.



Yellow light

The pump is in operation.

Note: On initial start up the pump will run until the supply line is primed to remove all air.

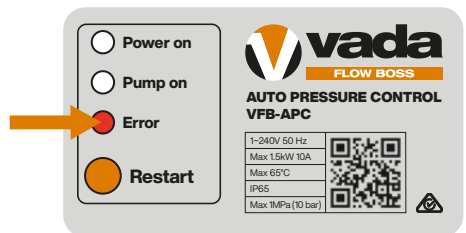


Red light

Flashing red: Loss of flow detected. While the red light is flashing, the pump will remain on for 20 seconds, then turn off as it tries to re-prime itself. It will attempt this several times.

Solid red: The pump has not been able to detect water and cannot re-prime itself. The pump will turn off for 24 hours, or until reset.

To reset, turn the power off, then on or press the restart button.



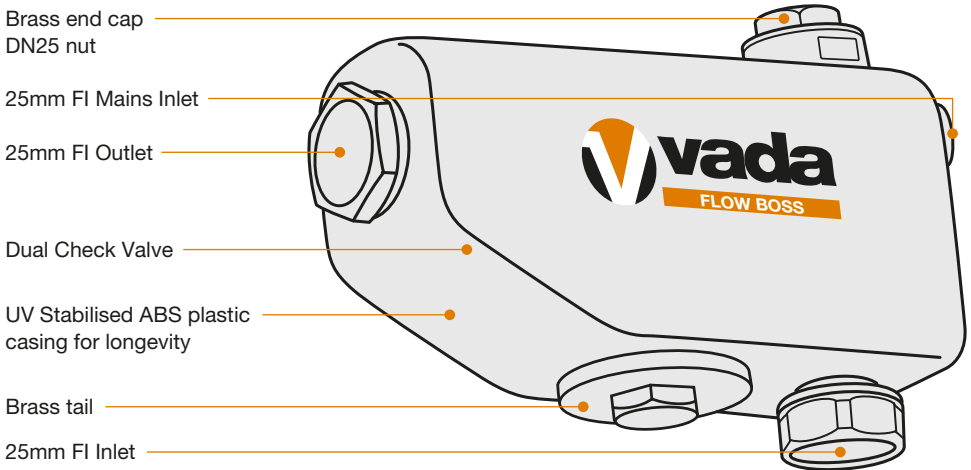
KNOW YOUR PRODUCT

VFB-MSU25

The Vada Flow Boss Mechanical Water Switching Unit VFB-MSU25 is a fully automatic mechanical unit that switches between tank and mains water. This device is designed for pressure pump supply systems, and allows you to harvest rainwater for the toilet, laundry, and other household applications with automatic mains backup.

The 25mm Switching Unit is suitable for up to 3 toilets, a washing machine, and an additional tap outlet including irrigation.

The Vada Flow Boss Mechanical Switch is suitable for clean water only.



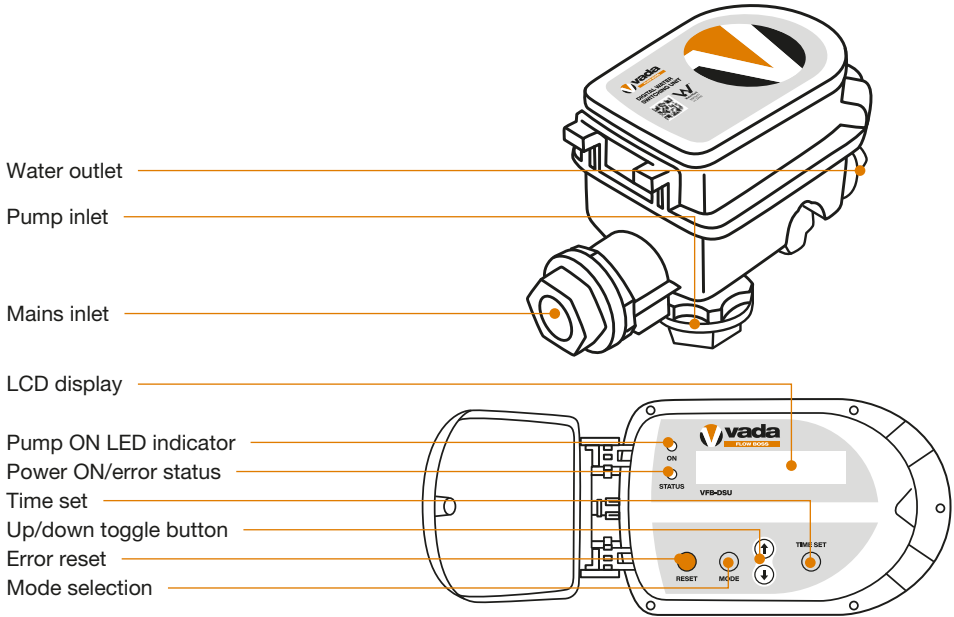
SPECIFICATIONS

VFB-MSU25

- Pump inlet: 25mm FI
- Mains water in: 25mm FI
- Outlet: 25mm FI
- Max mains pressure: 1000kPa / 10 bar
- Min pump pressure: 350kPa / 3.5 bar
- Max flow rate: 100 litres per minute
- Max water temp: 50°C

KNOW YOUR PRODUCT

The Vada Flow Boss Digital Water Switching Unit VFB-DSU allows for water source switching between tank and mains water. With a large interactive panel, the VFB-DSU provides system information including a log of rain water used, real time flow rate, water pressure, current and error conditions.



SPECIFICATIONS

- Mains water supply inlet: 25mm FI
- Pump connection: 25mm FI
- Water outlet connection: 25mm FI
- Minimum mains pressure: 100kPA / 1 bar
- Max operating pressure: 1000kPA / 10 bar
- Minimum flow rate: 1 lpm
- Voltage: 1~230–240V 50Hz
- Maximum electrical load: 10A / 2400W
- IP Rating: IP44

HELPFUL HINT

- View the complete Digital Water Switch Manual for further details on set up, operation and troubleshooting.

APPLICATIONS

The Vada Flow Boss Submersible Pump VFB-S75 is suitable for the following applications:

Water source switching (tank/main)	Domestic pressure systems	Domestic water transfer (clean water only)	Hose watering	Irrigation systems
✓	✓	✓	✓	✓

The Vada Flow Boss Submersible Pump VFB-S75 is not suitable for the following applications:

Borehole applications	Drainage of stormwater pits	Pumping of blackwater (wastewater with toilet discharge)	Pumping aggressive or inflammable liquids	Pumping liquid containing abrasive solids (stones, ceramics etc.)
✗	✗	✗	✗	✗

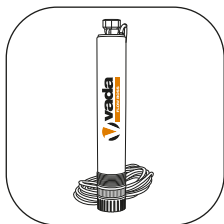
INSTALLATION

PREPARING FOR INSTALLATION

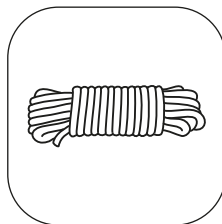
For successful installation, ensure you have all pieces required for your product combination.

Vada Flow Boss Submersible Pump VFB-S75

What we've supplied:



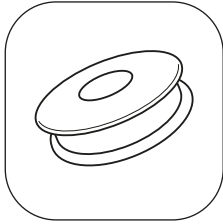
□ Vada Flow Boss Submersible Pump VFB-S75



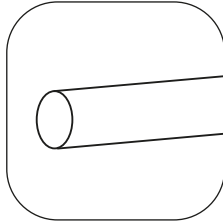
□ Nylon rope (to lower the pump)



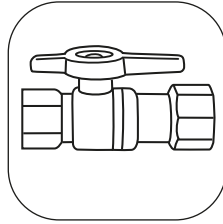
What you'll need to supply:



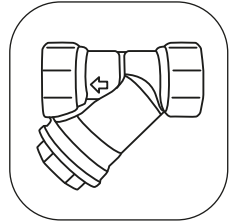
□ Thread tape



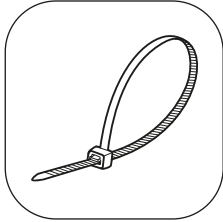
□ Pressure Pipe
(min 32mm internal diameter)



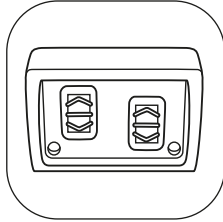
□ x1 Isolation valve



□ 32mm Y strainer
(aka inline strainer)



□ Cable ties



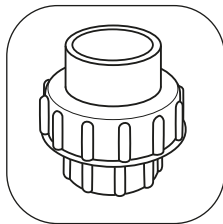
□ Access to a
10A outdoor
power point

Vada Flow Boss Automatic Pressure Control VFB-APC

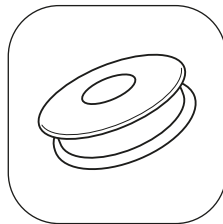
What we've supplied:



□ Vada Flow Boss
Automatic Pressure
Control VFB-APC



□ 25mm barrel union



□ Thread tape

INSTALLATION

Vada Flow Boss Digital Water Switching Unit VFB-DSU

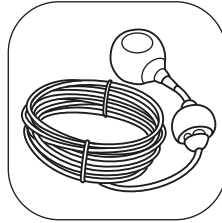
What we've supplied:



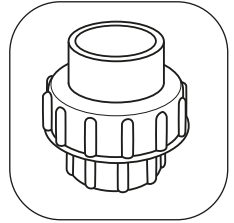
- Vada Flow Boss Digital Water Switching Unit VFB-DSU



- x2 mesh washer inline filters

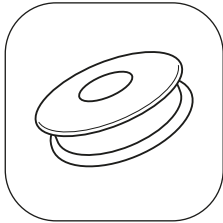


- Float switch kit

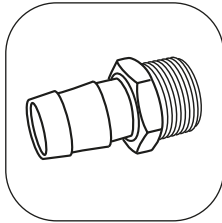


- Barrel union kit

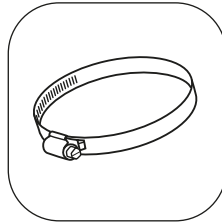
What you'll need to supply:



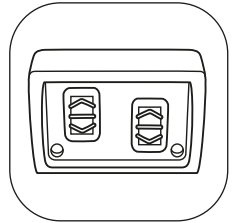
- Thread tape



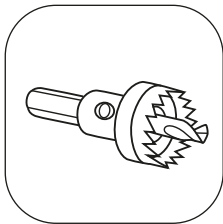
- 25mm or larger male hose barb



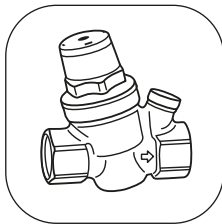
- Hose clamps



- Access to a 10A outdoor power point



- 16mm hole saw (to drill hole in roof tank for float switch cable)



- Pressure reduction valve (if mains inlet pressure exceeds 1000 kpa)



PART 1: PUMP LOCATION

Let's get down to business.

Note: Ensure the pump is being installed by a qualified, licensed personnel. The pump should be in good condition and should be used in a residential application.

Note: All components used must have a pressure rating that exceeds the maximum pressure of the pump by an appropriate safety factor.



In accordance with AS 3350.2.41 we are obliged to inform you that this pump is not to be used by children or infirm persons and must not be used as a toy by children.



Ensure that the power lead remains disconnected until you have completed the installation process.

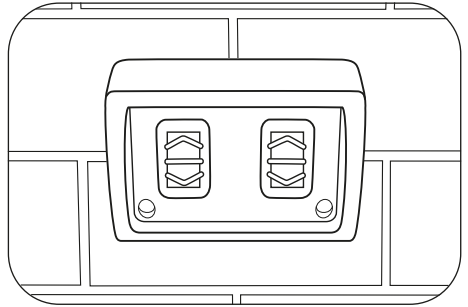


The Auto Pressure Control is pre-set by the manufacturer with a pump start pressure of 1.5 bar (this can be adjusted). The maximum pump pressure must be 0.8 bar above the start pressure for the pump to reach automatic shut-off.



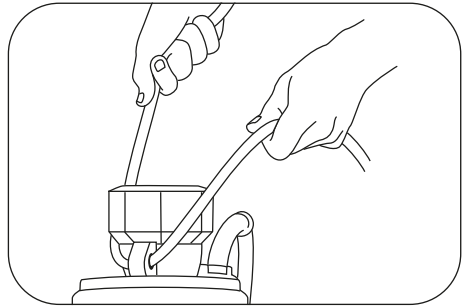
The Pressure Control has a safety valve preventing water emission in case of diaphragm damage. **DO NOT REMOVE.**

1. Ensure you have access to a 10A weatherproof outdoor power point in a dry and flood free location. Do not plug the power lead in.

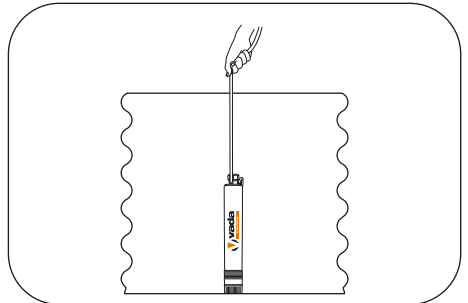


Note: If you do not have access, arrange an electrician to install one.

2. Thread the nylon rope supplied through the handle at the top of the pump.



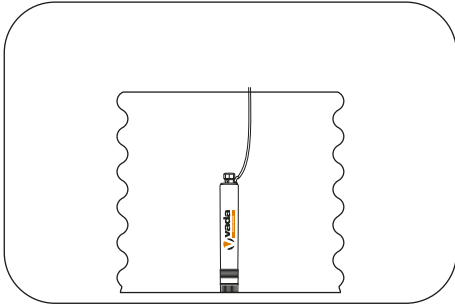
3. Using the rope, lower the pump into position.



INSTALLATION

Note: When lifting or raising in and out of position, please use nylon rope supplied. Do not lift via the power cable.

4. Check the set up so far. The surface the pump sits on should be hard and there should be enough clearance between the base of the tank and suction inlet (approx 50–100mm). This clearance helps prevent sediment and debris from entering the pump.

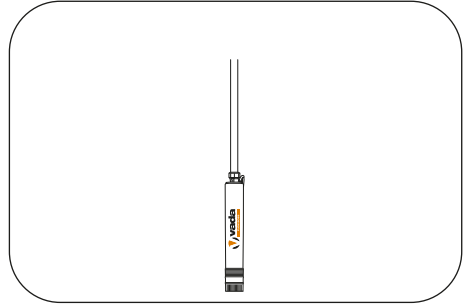


PART 2: DISCHARGE SET UP

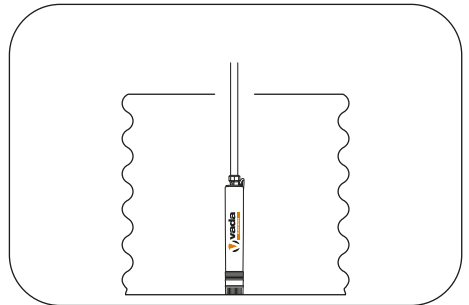
It's time to set up the discharge pipework.

Note: The length and diameter of the discharge hoses/pipes will affect the pressure and flow rate at which your pump operates. Pressure ratings of all components must exceed the maximum pressure of the pump by an appropriate safety factor.

1. Create space for your discharge pipe work at the top of the tank. Connect the discharge pipe to outlet port of the pump.

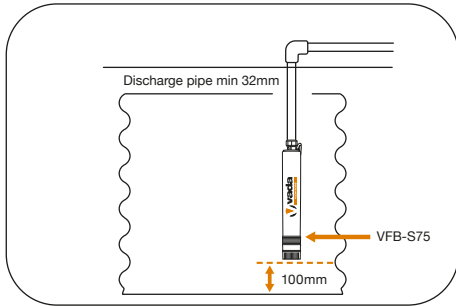


2. Lower the pump and discharge pipe work into the tank.

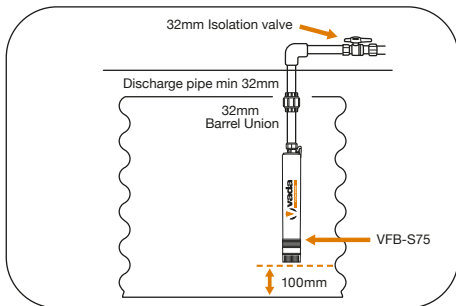




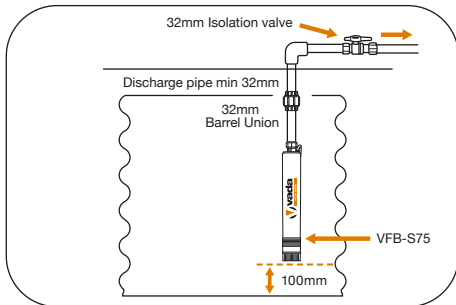
3. Add an elbow to your pipework and ensure the VFB-S75 is 100mm from the bottom of the tank. This prevents the pumping of sediment.



4. For easy maintenance install an isolation valve and barrel union to the discharge line outside of the tank.



5. Connect the discharge pipe to the outlet using a hard discharge pipe.



6. Check that all pipework is supported independently from the pump.



What next?

If your application is using tank water only, continue to Installation Part 3: Fit a Vada Flow Boss Automatic Pressure Control.

If you're using tank and mains water and choose to opt for a mechanical/hydraulic water switching unit, continue to Installation: Part 3, followed by Installation: Part 4.

If you're using tank and mains water and choose to opt for a Digital Water Switching Unit, skip to Installation: Part 5: Fit a Vada Flow Boss Digital Water Switching Unit.

INSTALLATION

PART 3: FIT A VADA FLOW BOSS AUTO PRESSURE CONTROL

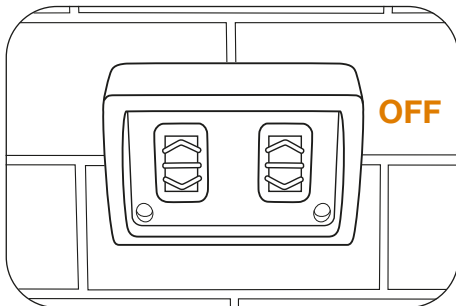


Never take the electronic board out of the control box. The wiring diagram inside the front panel will show you how to make correct connection. Wrong connection will destroy the whole electronic circuit.

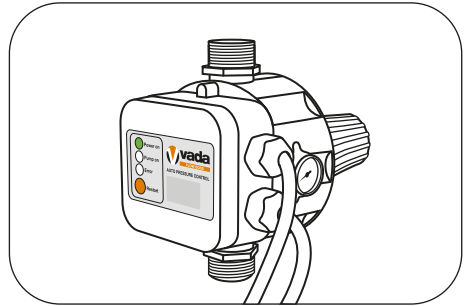


If extending the cable used for connection, ensure the connection is being carried out by a qualified professional with an electrical license.

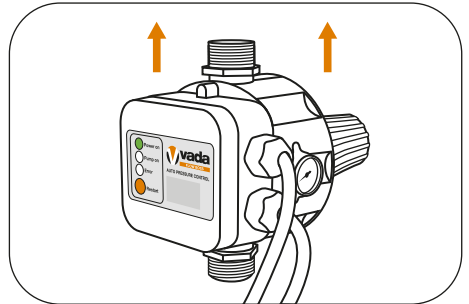
1. Keep the VFB-APC unplugged from the power source.



2. Position the Auto Pressure Control (VFB-APC) between the pump and the first outlet.



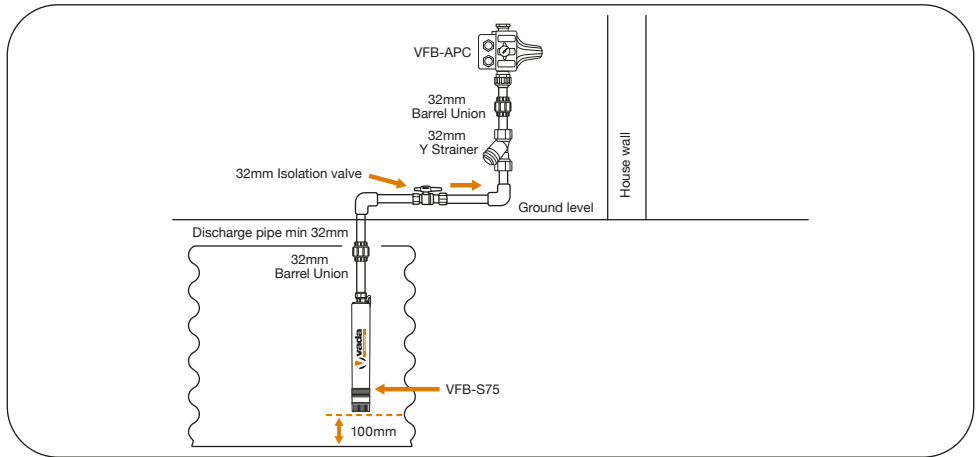
3. Connect the VFB-APC inlet using pipe with appropriate fittings (e.g. barrel union and adapter, reducer). Ensure the VFB-APC is installed with the arrows on the side of the unit pointing up.



Note: Do not install a tap between the pump and VFB-APC.



4. Check the set up so far. Ensure that the VFB-APC is braced or fixed so minimal movement occurs once in operation. If the distance between the pump and highest tap exceeds 15m, adjust the cut-in pressure on the VFB-APC.



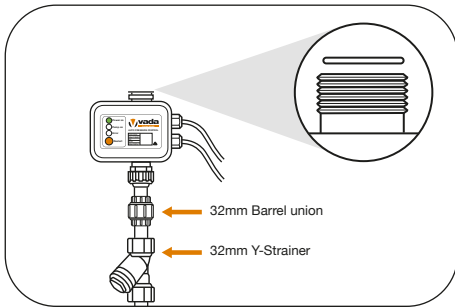
Note: Do not install any outlets between the pump and pressure control.

INSTALLATION

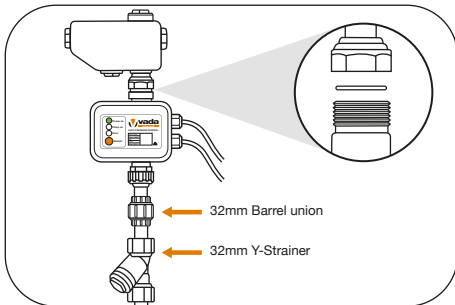
PART 4: FIT A VADA FLOW BOSS MECHANICAL WATER SWITCHING UNIT

Installing a VFB-MSU25 for a tank/mains system? Follow the steps below. If not, skip ahead!

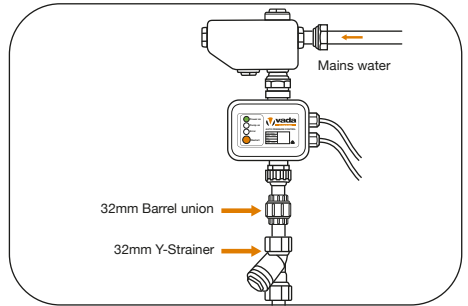
1. Grab the rubber washer supplied and place it on top of the Auto Pressure Control (VFB-APC) outlet.



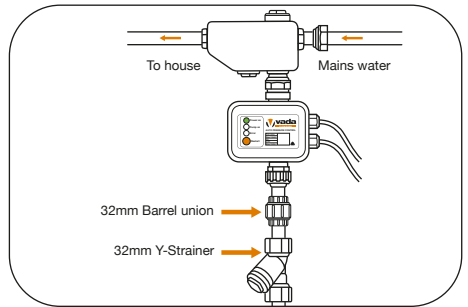
2. Hold the Mechanical Switching Unit (VFB-MSU25) over the outlet and connect the loose nut. Do not overtighten. The rubber washer will lock this in place.



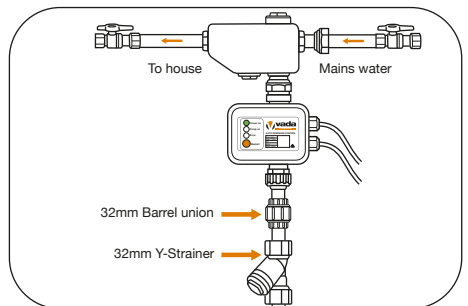
3. Connect the mains water pipe to the VFB-MSU25 outlet labelled "mains in".



4. Connect the house water pipe to the VFB-MSU25 outlet labelled "to house".



5. For easy maintenance down the track, install an isolation valve into both the mains and house water line.

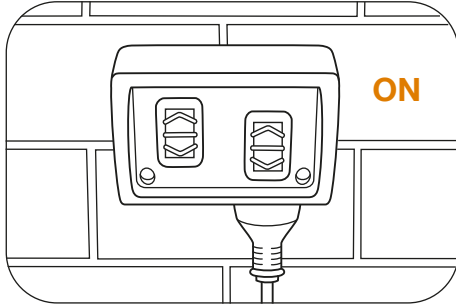




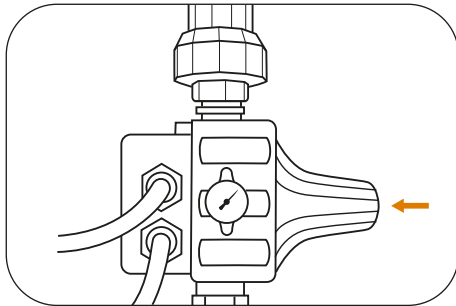
Adjust the Cut-In Pressure

After installing the VFB-APC and VFB-MSU25, the cut-in pressure must be adjusted to ensure a smooth and reliable changeover.

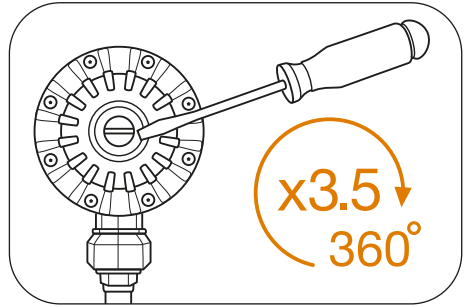
1. Turn on the Pump and VFB-APC.



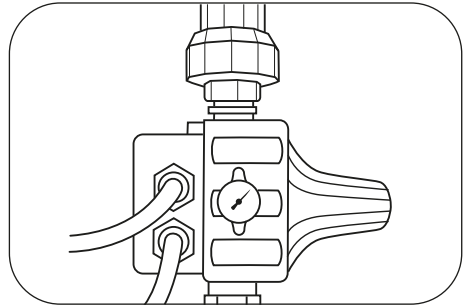
2. Locate the adjustment screw at the back of the VFB-APC.



3. Using a flat head screwdriver, turn the adjustment screw clockwise until you reach the correct pressure (roughly, this will be 3.5 full 360° turns).



4. Confirm the pressure has been correctly adjusted by slowly opening a tap outlet and checking the gauge on the side of the VFB-APC. If the pump re-starts when gauge drops to 2.2, the cut-in pressure has been successfully adjusted.



5. Your pump solution is now ready of operation!

Note: If you have installed a Vada Flow Boss Auto Pressure Control, note it is only compatible with the Mechanical Water Switch not the Digital Water Switching Unit.

INSTALLATION

PART 5: FIT A VADA FLOW BOSS DIGITAL WATER SWITCHING UNIT

If you've chosen to use the Digital Water Switching Unit, proceed with the steps below.



Do not install or operate your Digital Water Switch Unit in an explosive environment, or near combustible matter. Incorrectly installed or tested equipment may fail, causing severe injury or property damage.



The Digital Water Switch is electrically connected. Ensure that it is isolated from electrical supply during installation and any subsequent service work.

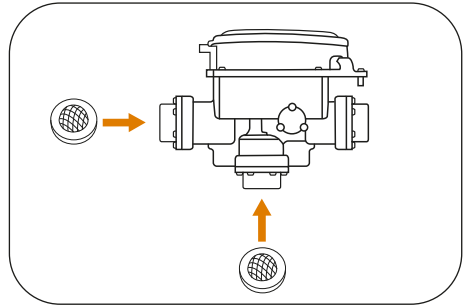


Brace inlet and outlet connections while fitting the Digital Water Switch. Any movement of connections may disturb internal seals and cause leakage.

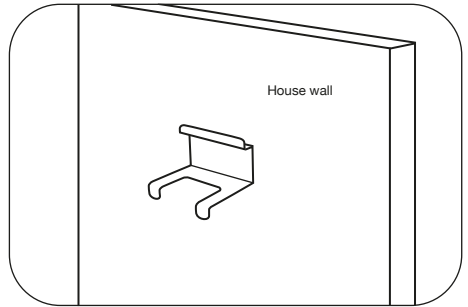


Please read the full manual on the Vada Flow Boss Digital Water Switching Unit for complete installation & operation instructions, as well as troubleshooting and product features.

1. Insert two mesh inline filters on the mains inlet and pump inlet of the VFB-DSU.

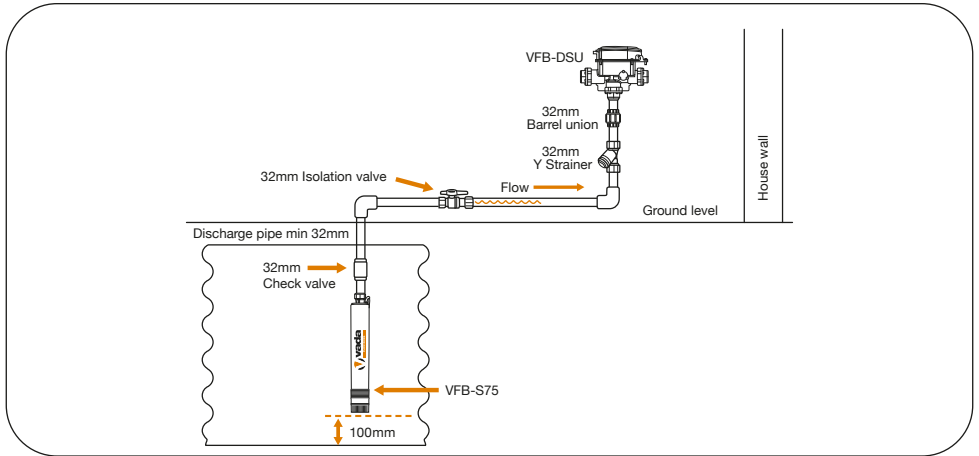


2. Where possible, install the VFB-DSU using the wall mount bracket.



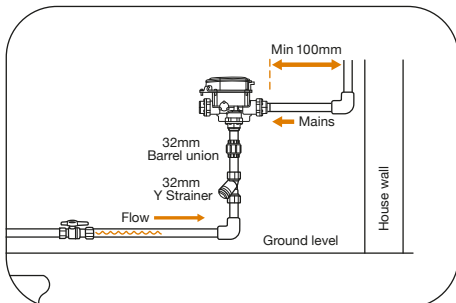


3. Connect the discharge pipe to the port labelled 'pump' on the VFB-DSU. Ensure that the submersible pump is raised off the base of the tank, and a y-strainer is installed prior to the VFB-DSU. Brace the VFB-DSU to prevent movement while connecting to all inlets/outlets.

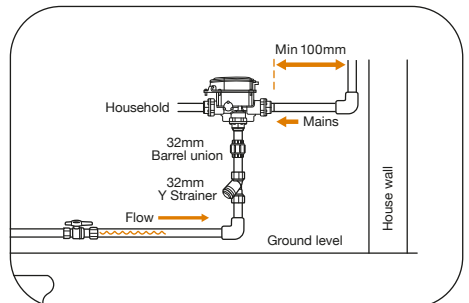


Note: Pipe size should be in accordance with pump outlet size – reduction may be required immediately prior to entering the VFB-DSU.

4. Connect the mains pipework into the port labelled 'mains' on the VFB-DSU.

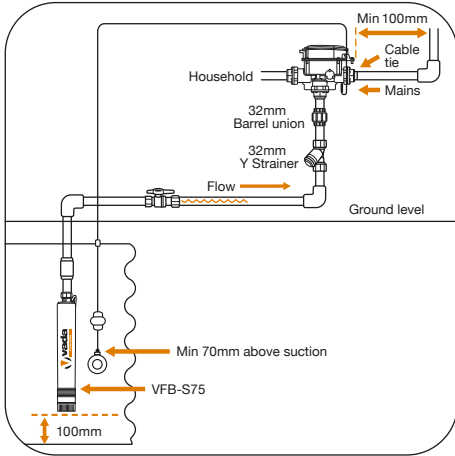


5. Connect the household pipework into the port labelled 'outlet' on the VFB-DSU.



INSTALLATION

6. Install the float switch provided. The float switch greatly reduces the risk of the pump losing prime, which could cause damage to the pump. For more information, view the full VFB-DSU manual.



PART 6: CONNECT TO A POWER SUPPLY

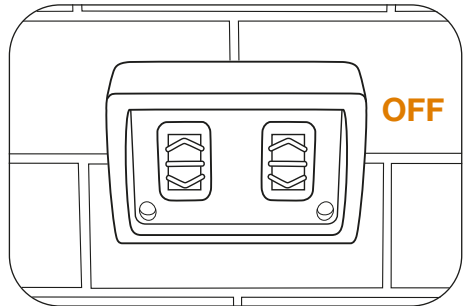
Once your submersible pump is positioned and pipework is completed, it's time to connect to power.

Note: Do not use extension cords. These can cause a voltage drop.

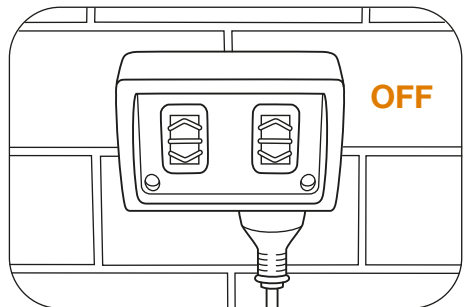


In accordance with AS 3350.2.41 we are obliged to inform you that this pump is not to be used by children or infirm persons and must not be used as a toy.

1. Before plugging the power supply cord into the power point, ensure the power point is in a dry and flood free location.

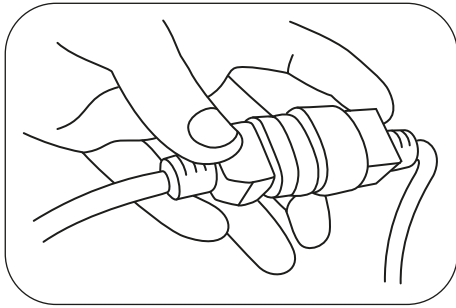


2. Plug the power supply cord into the 10 Amp power point. Do not switch on.



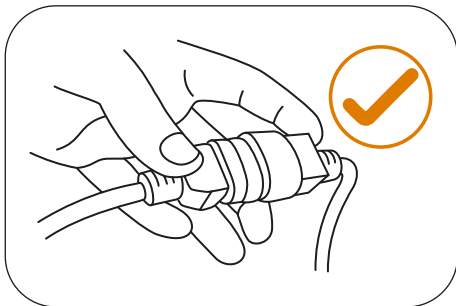


3. If you are using an VFB-APC or VFB-DSU, you will need to connect the IEC socket from the pump to the IEC plug cord on the device, then connect the power cord to the power point. If you are connecting directly to a power outlet (without an VFB-APC or VFB-DSU), connect the two supplier cords using the IEC socket and connect to the power chord to the power point.



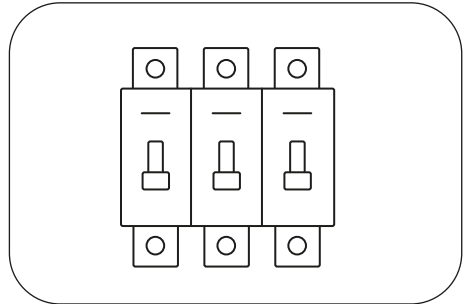
Note: Supply voltage that is outside the limits specified can cause the motor to overheat leading to overload tripping, reduced component life or seriously damage pump, voiding warranty.

4. Ensuring there are no water traces on the connectors push them firmly into each other.

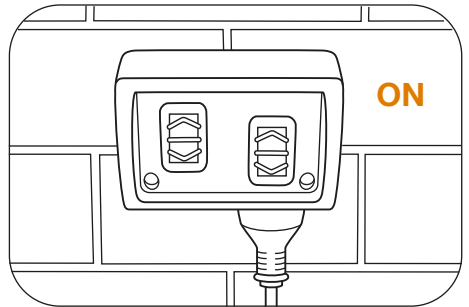


Note: This connection should be separated only for servicing and only after the power supply is removed by unplugging the cord from the socket outlet.

5. For additional protection, the pump should use an outlet protected by a residual current device – RCD (also known as an Electrical Leakage Circuit breaker – ELCB) with a maximum rated residual current of 30Ma.



6. Connect the pump and pressure control device to the power supply and turn the power on. The green “Power On” LED will illuminate.



If you're using the VFB-S75 with an APC continue to page 24.

If you're using the VFB-S75 with a MSU or DSU continue to page 25.

If you're installing the VFB-S75 without these products, your installation is complete.

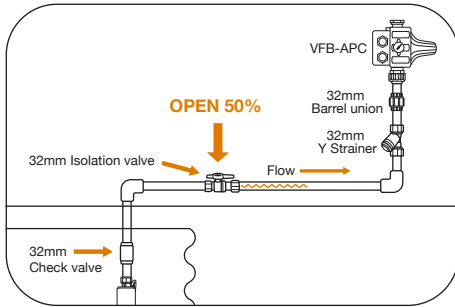
OPERATION

Submersible Pump & Auto Pressure Control

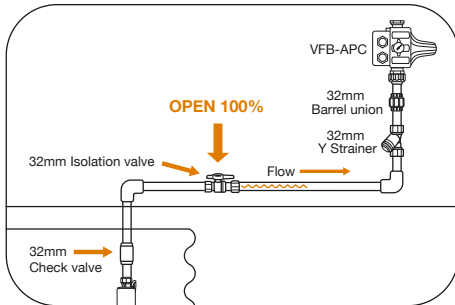


Do not run pump dry. Ensure that the pump is fully submerged.

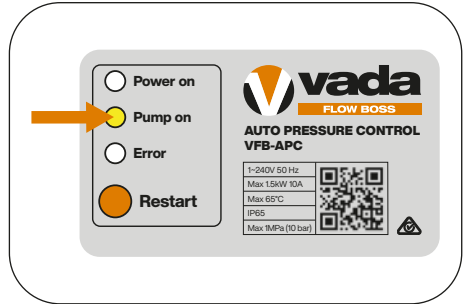
1. Slowly open the gate valve on the discharge line to 50%.



2. Once the pipework is full, open the gate valve on the discharge line to 100%. This will assist with removal of unwanted air. When the power is turned on, the pump will start to pump water.



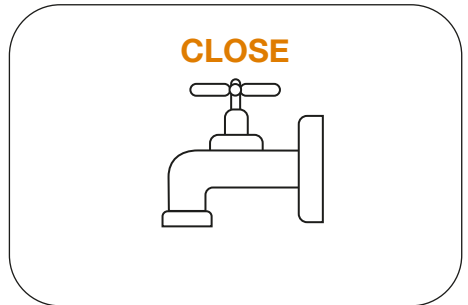
3. Open the isolation valve that is connected to the VFB-APC, then open an outlet. The pump will start automatically and continue to run at constant pressure. If you're using a VFB-APC, the yellow "Pump On" LED on the Pressure Control will illuminate.



Note: Without a VFB-APC or VFB-DSU, the pump will continue to operate until the power is switched off.

Note: On initial start-up the pump will run until the supply line is primed.

4. Once all pipework has been filled on the discharge side line, close the valve.



Note: The pump will run for a short period of time until the system is again pressurised and then stop.



5. The pump set up is now ready for use.

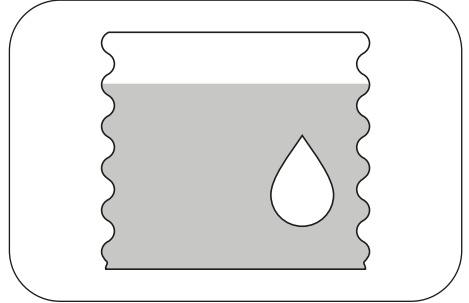


6. If no water is delivered, refer to troubleshooting guide.

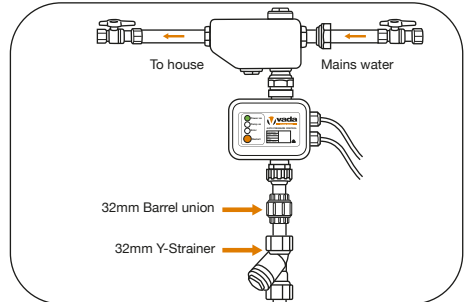


Submersible Pump & Mechanical Water Switching Unit

1. Ensure there is enough rainwater in the tank for the unit to detect.



2. When the power is turned on, the mechanical unit will prioritise the use of tank water over mains water (when tank water is available).



3. Congratulations. The mechanical water switching unit is now in operation!

Submersible Pump & Digital Water Switching Unit

For operating instructions, please refer to the complete Digital Water Switching Manual.



SERVICE & MAINTENANCE



Turn off power to motor and remove plug from power outlet before working on pump or motor.



Liquid may be HOT, release pressure with care before servicing.



Pump should only be serviced by qualified personnel. For best results, use only genuine service parts. Be sure to prime pump before starting.

Under normal conditions, the Vada Flow Boss Submersible Pump VFB-S75 requires low maintenance and is simple to service.

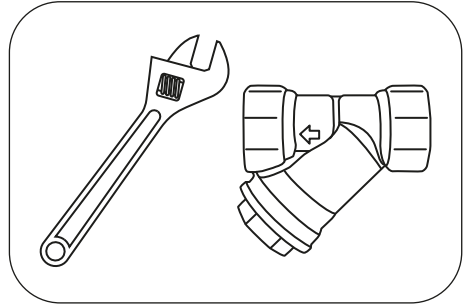
To avoid possible failures, we recommend periodically checking the flow and pressure supplied and current absorption:

- A decrease in pressure is a symptom of wear.
- An increase in current absorption is a sign of abnormal mechanical friction in the pump and/or motor which may be caused by debris caught in the impeller.

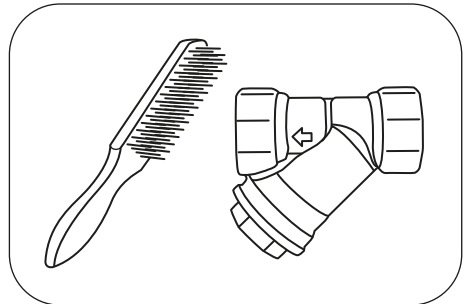
Cleaning the in-line filter

To avoid a build-up of debris and dirt, Vada recommends cleaning out the in-line filter once every 6 months, or as required. To do so, follow the steps below.

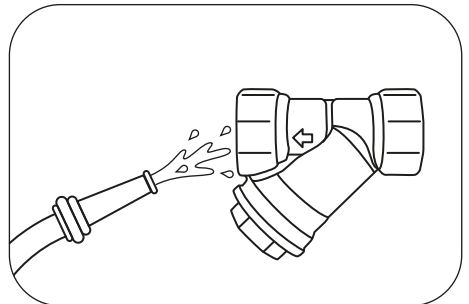
1. Remove the inline filter aka y strainer.



2. Use a steel brush to clean the debris from the filter.



3. Rinse with clean water.



STORING THE PUMP

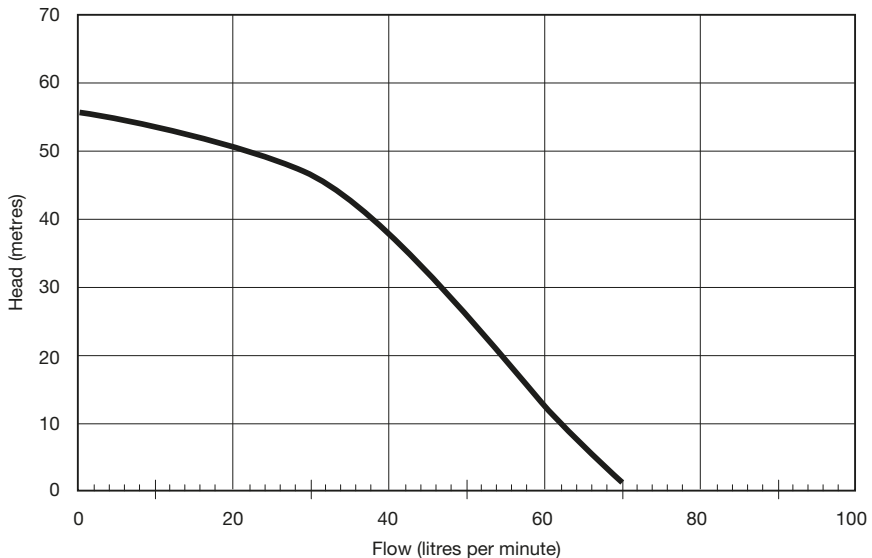


If the pump is not going to be used for long periods of time (e.g. 6 months), it should be emptied completely, rinsed with clean water and stored in a dry, shaded place.

PUMP PERFORMANCE CURVE

Pump curves are a great tool to understand your pumps performance capabilities, in relation to head (metres) and flow (litres per minute). Pump curves can be interpreted by tracing your finger along the head (metres) across to flow (litres per minute).

For example, in the pump performance curve below, you can see that if the Vada Flow Boss Submersible Pump VFB-S75 has a discharge head between 28–48 metres, then the pump will produce between 32–48 l/min.



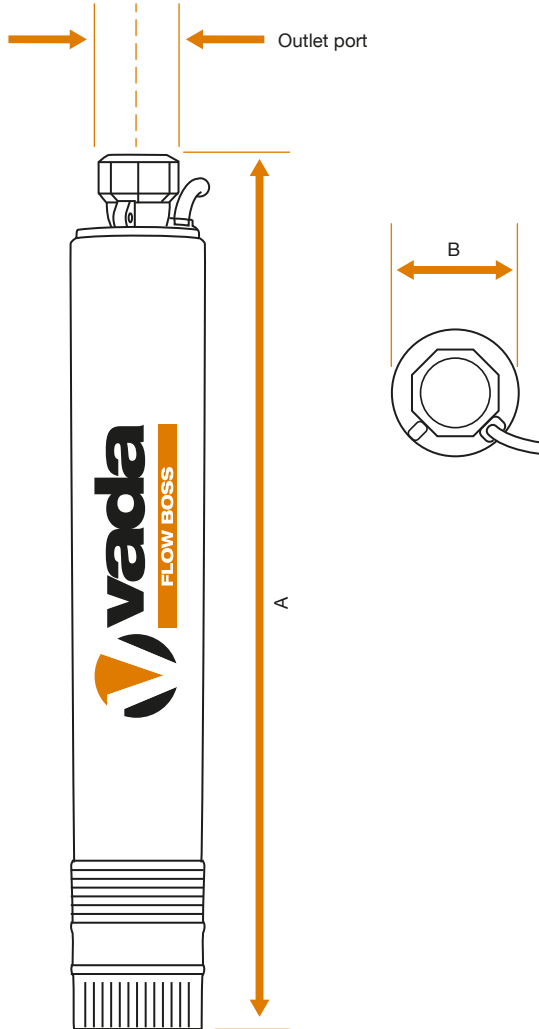
Note: Should you require more specific information on your application for working out the required discharge head or system duty, please contact a Reece specialty engineering or design business unit which may include more advanced systems to include visual / audible alarms and Australian Standards such as AS3500 for rainfall intensity and ARI (Average Recurrence Interval).

PRODUCT DIMENSIONS

VFB-S75

- A. 643mm
- B. Ø98mm

Outlet port: 32mm FI
Free bore: 2mm
Weight: 10.8kg



CONSTRUCTION	
Pump casing	AISI 304 stainless steel
Suction grid	AISI 431 stainless steel
Base	Noryl
Impeller	Acetal resin
Motor shaft	Immersed part – AISI 303 stainless steel Motor side – carbon steel
Mechanical seals	Carbon graphite / ceramic / NBR
Power cable	20m H07 RN-F
Non-return valve	Thermoplastic with NBR o-ring integrated
Discharge head	Noryl (PPO)

Note: Thrust bearing ring inserted in every stage

USAGE LIMITATIONS	
Liquid type	Clean water with no suspended solids or abrasive material
Max. liquid temp	40°C
Max. submersion depth	17m

MOTOR	
IP Rating	IP68 (motor)
Speed of Rotation	2850rpm (motor)
Insulation	Class F (motor)
Thermal protection built into the motor winding	
Suitable for continuous use	
Single phase power supply with capacitor permanently activated	
Completely insulated cable connection chamber	

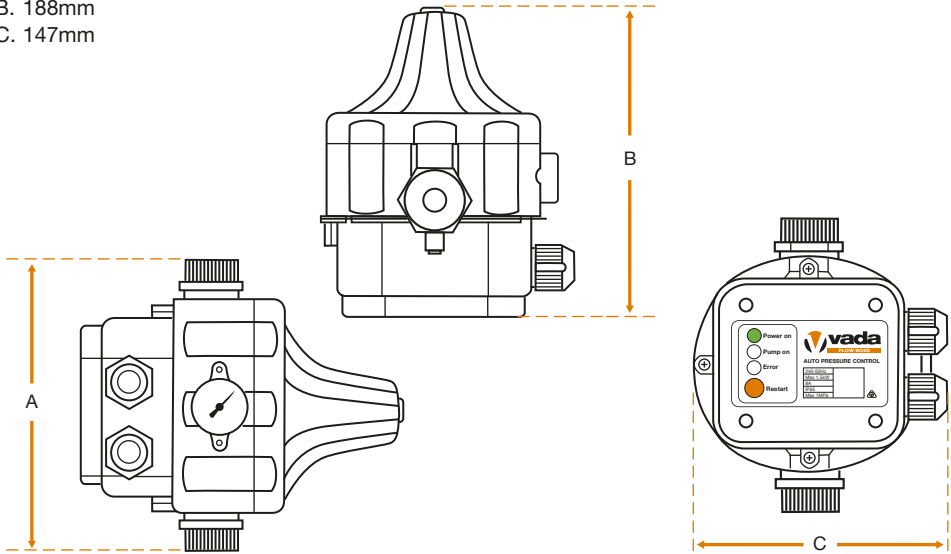
POWER		
Nominal power	HP	0.80
	kW	0.60
Absorbed power	HP	1.20
	kW	0.90
Voltage	1~230–240V 50Hz	
Full load amps	3.8	
Capacitor size	16 µF	

Q	L/1'	0	20	40	60
	m ³ /h		1.2	2.4	3.6
Discharge in meters		56	48.9	38.1	19

PRODUCT DIMENSIONS

VFB-APC

- A. 174mm
- B. 188mm
- C. 147mm



TECHNICAL INFORMATION

VFB-APC

SPECIFICATIONS

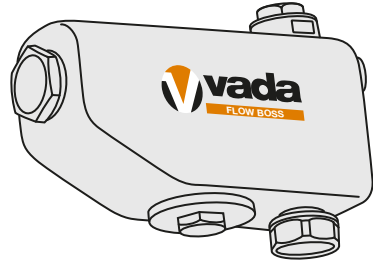
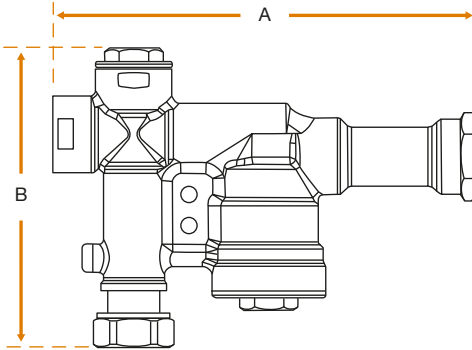
Inlet	25mm MI
Outlet	25mm MI
Max operating pressure	1000kPa / 10 bar
Min pump pressure	250kPa / 2.5 bar
Min-max water temperature	1°C-65°C
Min-max ambient temperature	1°C-40°C
Supply voltage	1~240V 50Hz
Cut-in pressure	150-300kPa / 1.5-3 bar

Max power	1.5kW
Max current	10A
IP rating	IP65

PRODUCT DIMENSIONS

VFB-MSU25 

A. 210mm
B. 148mm



TECHNICAL INFORMATION

VFB-MSU25

SPECIFICATIONS

Pump inlet	25mm FI
Mains water in	25mm FI
Outlet	25mm FI
Max mains pressure	1000kPa / 10 bar
Min pump pressure	350kPa
Max flow rate	100lpm
Max water temp	50°C

*Ensure proper protection against freezing weather.

Certified to Watermark standard WMTS477.

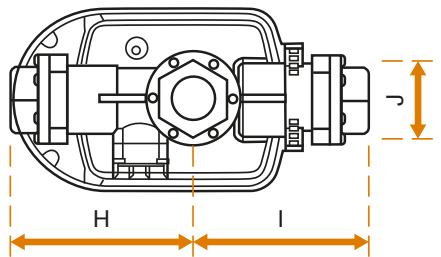
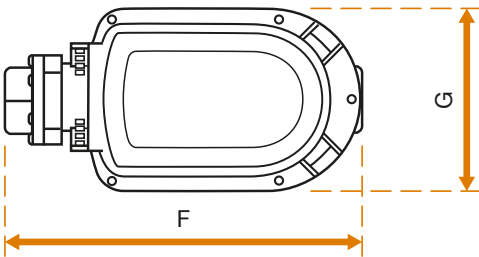
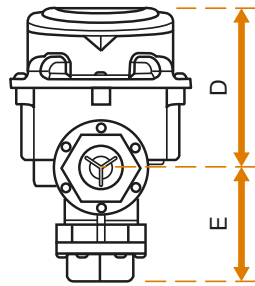
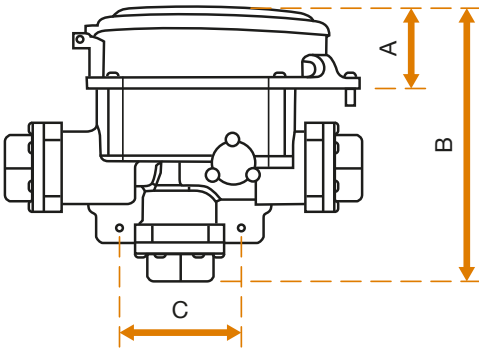
Complies to AS/NZS 3500.1 when installed by a licensed plumber

Note: According to AS/NZS 3500.1 maximum allowable pressure in buildings is 500 KPa.

PRODUCT DIMENSIONS

VFB-DSU

- A. 52mm
- B. 181mm
- C. 80mm
- D. 106mm
- E. 75mm
- F. 235mm
- G. 119mm
- H. 120mm
- I. 115mm
- J. Ø48mm



SPECIFICATIONS

Supply voltage	1~230–240 50Hz
Max electrical load	10A / 2400W
Power standby	3.5W
Control power (on)	30W
IP rating	IP44
Min flow rate	1lpm
Min mains pressure	1 bar
Max operating pressure	10 bar
Min–max water temperature	1°C–40°C
Min–max ambient temperature	1°C–40°C



CONNECTION

Mains water supply inlet	25mm FI BSP
Pump connection	25mm FI BSP
Water outlet connection	25mm FI BSP





TROUBLESHOOTING

Having trouble? Sort it out here, quick smart.



If these solutions do not solve the problem, please visit your local Reece Irrigation & Pools branch.

SYMPTOM	CAUSE	SOLUTION	
The pump will not start (no water is being pumped and it is not making any noise).	There may be no power supply to the pump.	<ol style="list-style-type: none"> 1. Ensure that the power is turned on and check the connection to the power point. 2. Fuse may have blown. Contact a pump technician or contact your local Reece branch to replace fuse. 3. Electrical power line may have been damaged. 	
	The pump motor protection may have tripped.	There may be resistance in the pump motor shaft	There may be resistance in the pump motor shaft <ol style="list-style-type: none"> 1. Disconnect all electrical power. 2. Remove pump casing and check for objects jammed between moving components. 3. If still jammed, or damaged, replacement parts required. Contact a pump technician or call your local Reece branch.
		Check that the pump motor is not blocked by external objects that are causing the pump to seize.	<ol style="list-style-type: none"> 1. Disassemble pipework and pump housing. 2. Clean impellers.
		 It is recommended to call a pump technician or licensed professional.	
		Check that the power cables and relative connections are not damaged.	
		Check if the pump winding is damaged and replace if necessary.	
		 This should only be done by a qualified electrician.	
If a pressure controller has been installed, check that it is functioning correctly and turning the pump off at no flow.			




SYMPTOM	CAUSE	SOLUTION
	The pump capacitor may be damaged.	Contact a qualified service technician to confirm the capacitor is damaged.
	The pump shaft may be locked or jammed.	Check for blockages that may be causing the pump to seize: 1. Turn the power off. 2. Rotate the fan and ensure it spins freely with no resistance. 3. Remove pump casing and check for objects jammed between moving components.  It is recommended to call a pump technician or licensed professional.
	The electronic card in the pressure controller may be broken. <i>*Only applicable if a pressure controller has been installed.</i>	If a pressure controller has been installed, the electronic card in the controller may need to be removed and replaced with a new card, or a new unit entirely.  This should only be done by a qualified electrician.
	Voltage failure.	 Check with a licensed electrical contractor to ensure voltage is correctly supplying the unit. Refer electrical data in manual.
The pump will not start, but is making noise.	The pump may be jammed.	If there is a humming sound coming from the pump motor, this may be due to debris or damage to the impellers being blocked and no longer turning or damage due to incorrect pump selection. 1. Check pump internals for debris. 2. Check system pump requirement.  This should only be done by a qualified electrician.


TROUBLESHOOTING

SYMPTOM	CAUSE	SOLUTION
<p>The pump will not start, but is making noise (continued).</p>	<p>The pump may be jammed.</p>	<p>This may also be a failed capacitor caused by the above. Contact a qualified service technician to confirm the capacitor is damaged.</p>
		<p>The in-line strainer or filter on the suction line pipework may be blocked:</p> <ol style="list-style-type: none"> 1. Close the isolating valve on the suction line. 2. Remove/clean in-line strainer or replace if necessary. 3. Once in-line strainer has been cleaned, open isolating valve on suction line and retry for pressure.
		<p>There may be debris caught within the first impeller not allowing pressure to be created.</p> <ol style="list-style-type: none"> 1. Disassemble pipework and pump housing. 2. Clean impellers. <p> It is recommended to call a pump technician or licensed professional.</p>
		<p>Potential water failure. If complete water failure, then it is possible the motor bearing has seized.</p> <ol style="list-style-type: none"> 1. Turn power off. 2. Remove the fan cover. 3. Gently spin the fan to see if it spins freely. <p>If the fan is hard to move or does not move at all this indicates there is major damage with the motor bearing. Call a pump technician.</p>
		<p>If a pressure controller has been installed, the electronic card in the controller may need to be removed and replaced with a new card, or a new unit entirely.</p> <p> This should only be done by a qualified electrician.</p>
<p>The pump stops after running for a short period of time.</p>	<p>The single-phase, pump motor thermal may have tripped.</p>	<p>This is reset automatically once the motor has cooled.</p>
	<p>The power supply does not conform with the data on the nameplate.</p>	<p>Check the voltage on the power supply cable leads. If it does not conform, contact your local Reece branch.</p>




SYMPTOM	CAUSE	SOLUTION
	A solid object may be blocking the pump impellers.	Check for solid objects that may be blocking the impellers. 1. Disassemble pipework and pump housing. 2. Clean impellers.  It is recommended to call a pump technician or licensed professional.
	The liquid being pumped may be too thick.	Contact your local Reece branch. You may need a different type of pump for the application. This pump is for clean, debris free water only.
	There may be rotation resistance in the pump fan.	1. Disconnect all electrical power. 2. Remove the fan cover. 3. Rotate the fan by hand and it should rotate freely.
	There may be cavitation in the pump (demand for water is higher than it can pump). <i>*Cavitation can be identified by the noise of the pump. You will hear a bubbling, crackling sounds like marbles rattling inside the pump casing.</i>	The length of the suction pipe may be too long, or the internal diameter may be too small: 1. Reduce either the suction height or distance. 2. Increase the suction pipe internal diameter to same size as the pump inlet or larger.
	There may be excessive liquid temperature.	The liquid temperature should be below 40°C. Check liquid temperature using a thermometer.
	The pump motor thermal cut out protection setting, or fuses may not be suitable.	Check protection devices with respect to rated current of pump. The circuit breaker should be rated to 10A.
	The pump power cable may be damaged.	Replacement parts required. Contact a pump technician or call your local Reece branch.
	The pump motor may be damaged.	There may be resistance in the pump motor shaft. 1. Disconnect all electrical power. 2. Remove pump casing and check for objects jammed between moving components. 3. If still jammed, or damaged, replacement parts required. Contact a pump technician or call your local Reece branch.

TROUBLESHOOTING

SYMPTOM	CAUSE	SOLUTION
The pump stops after running for a short period of time (continued).	The suction pipe internal diameter may be too small.	A suction pipe size that is too small will cause high pressure loss or cavitation. Increase the pipe size to an internal diameter that is the same size as the suction inlet, or larger. Note: This means for a 25mm inlet pump a 32mm PN12.5 Poly Pipe must be used.
	Debris may be caught in the pump impeller.	Check for solid objects that may be blocking the impellers. 1. Disassemble pipework and pump housing. 2. Clean impellers.  It is recommended to call a pump technician or licensed professional.
	The in-line strainer on the suction line may be blocked.	Check for blockages in the in-line strainer: 1. Close the isolating valve on the suction line. 2. Remove/clean in-line strainer or replace if necessary. 3. Once in-line strainer has been cleaned, open isolating valve on suction line and retry for pressure.
	There may be presence of leaks which are higher than the minimum flow of 0.6 l/min.	If the pump is turning on, then off in short durations there may be a leak in the pipework. 1. Close the isolating valve on the discharge line of the pressure controller to see if the issue continues. 2. If it does not, check all taps, pipes, irrigation solenoid valves & toilet cisterns for leaks. 3. If it does continue, then check pressure control and suction pipe for debris. 4. If found, repair or replace pipework.
	The pump may have been incorrectly sized for the application.	Contact the Reece store where the product was purchased from.
	The mesh filter in the digital water switching unit may be blocked. <i>*Only applicable if application is using a digital water switch.</i>	If a digital water switching unit is installed: 1. Switch off power to the unit. 2. Isolate the water lines and remove the pump barrel union. 3. Inspect/clean/replace the switching unit mesh filter.





SYMPTOM	CAUSE	SOLUTION
<p>Pump performance is unstable (e.g. there is a change or reduction of pressure or flow output).</p>	<p>There may be cavitation in the pump (demand for water is higher than it can pump). <i>*Cavitation can be identified by the noise of the pump. You will hear a bubbling, crackling sounds like marbles rattling inside the pump casing.</i></p>	<p>The length of the suction pipe may be too long, or the internal diameter may be too small:</p> <ol style="list-style-type: none"> 1. Reduce either the suction height or distance. 2. Increase the suction pipe internal diameter to same size as the pump inlet or larger.
	<p>Debris may be caught in the suction pipe.</p>	<p>Check for debris or blockages in the suction pipe:</p> <ol style="list-style-type: none"> 1. Close the isolating valve on the suction line. 2. Check for debris. 3. If found, repair or replace pipework.
	<p>There may be a leak in the suction pipe.</p>	<p>If the pump is turning on, then off in short durations there may be a leak in the suction pipe.</p> <ol style="list-style-type: none"> 1. Close the isolating valve on the discharge line side of the pressure controller to see if the issue continues. 2. If it does, check the pressure control for debris or suction pipe for leaks. 3. If it does continue, then check pressure control and suction pipe for debris. 4. If found, repair or replace suction line.
<p>Pump will not stop.</p>	<p>The electronic card in the pressure controller may be broken. <i>*Only applicable if application is using a pressure controller.</i></p>	<p>If a pressure controller has been installed, the electronic card in the controller may need to be removed and replaced with a new card, or a new unit entirely.</p> <p> This should only be done by a qualified electrician.</p>
	<p>The reset button on the pressure controller may be locked. <i>*Only applicable if application is using a pressure controller.</i></p>	<p>If a pressure controller has been installed:</p> <ol style="list-style-type: none"> 1. Press the reset button on the face of the unit several times. 2. Or, reset the power.

TROUBLESHOOTING

SYMPTOM	CAUSE	SOLUTION
Pump will not stop (continued).	The check valve on the suction line may be blocked in the open position.	The check valve may be blocked by debris. <ol style="list-style-type: none"> 1. Remove the pressure control. 2. Inspect internals. 3. Clean or free debris. 4. Ensure that an in-line strainer/filter is fitted in the suction line between the pump and the tank. <i>*Without an in-line strainer/filter the warranty may be void.</i>
	A pressure controller or mains switch over device has not been installed on the pump.	Without a pressure controller or mains water switch-over device, the pump will continue to operate until the power is switched off.
	The pump may be sucking air.	Check that the level of liquid in the tank has not dropped below the minimum priming level. There may be also be a leak in the suction pipe: <ol style="list-style-type: none"> 1. Close the isolating valve on the discharge line side of the pressure controller to see if the issue continues. 2. If it does, check the pressure control for debris or suction pipe for leaks. 3. If it does continue, then check pressure control and suction pipe for debris. 4. If found, repair or replace suction line.
Pump is turning on then off in short durations.	The pump may not be providing sufficient pressure.	There could be potential of air still in the suction pipeline. <ol style="list-style-type: none"> 1. Check the pressure gauge on the side of the pressure controller to determine if that model pump is operating correctly when referencing its pump curve. 2. Check that the level of liquid in the tank has not dropped below the minimum priming level. 3. Close the isolating valve on the discharge line side of the pressure controller to see if the issue continues. 4. If it does, check the pressure control for debris or suction pipe for leaks. 5. If it does continue, then check pressure control and suction pipe for debris. 6. If found, repair or replace suction line.



SYMPTOM	CAUSE	SOLUTION
		<p>The suction pipe diameter may be too small and causing high pressure loss or cavitation. Increase the pipe size to an internal diameter that is the same size as the suction inlet, or larger.</p> <p>Note: This means for a 25mm inlet pump a 32mm PN12.5 Poly Pipe must be used.</p> <p>There may be debris caught within the first impeller not allowing pressure to be created:</p> <ol style="list-style-type: none"> 1. Disassemble pipework and pump housing. 2. Clean impellers. <p> It is recommended to call a pump technician or licensed professional.</p> <p>The pump may not be suitable for the water application. Check to confirm pump suitability on page 10.</p> <p>The in-line strainer or filter on the suction line pipework may be blocked.</p> <ol style="list-style-type: none"> 1. Close the isolating valve on the suction line. 2. Remove/clean in-line strainer or replace if necessary. 3. Once in-line strainer has been cleaned, open isolating valve on suction line and retry for pressure.
	<p>There may be presence of leaks which are higher than the minimum flow of 0.6 l/min.</p>	<p>If the pump is turning on, then off in short durations there may be a leak in the pipework.</p> <ol style="list-style-type: none"> 1. Close the isolating valve on the discharge line of the pressure controller to see if the issue continues. 2. If it does not, check all taps, pipes, irrigation solenoid valves & toilet cisterns for leaks. 3. If it does continue, then check pressure control and suction pipe for debris. 4. If found, repair or replace pipework.
	<p>The electronic card in the pressure controller may be broken. <i>*Only applicable if application is using a pressure controller.</i></p>	<p>If a pressure controller has been installed, the electronic card in the controller may need to be removed and replaced with a new card, or a new unit entirely.</p> <p> This should only be done by a qualified electrician.</p>

TROUBLESHOOTING

SYMPTOM	CAUSE	SOLUTION
<p>The pump vibrates and operates noisily.</p>	<p>The pump and pipework may not be firmly anchored.</p>	<p>Fix the pump and pipes securely.</p>
	<p>There may be cavitation in the pump (demand for water is higher than it can pump). <i>*Cavitation can be identified by the noise of the pump. You will hear a bubbling, crackling sounds like marbles rattling inside the pump casing.</i></p>	<p>The length of the suction pipe may be too long, or the internal diameter may be too small:</p> <ol style="list-style-type: none"> 1. Reduce either the suction height or distance. 2. Increase the suction pipe internal diameter to same size as the pump inlet or larger.
	<p>The pump may have been incorrectly sized for the application.</p>	<p>Contact the Reece store where the product was purchased from.</p>
<p>No water is delivered from the pump, or the pump performance has decreased.</p>	<p>The rainwater tank may be empty.</p>	<ol style="list-style-type: none"> 1. Check the tank level. 2. If empty/low, wait for the tank to refill.
	<p>There may be no power supply to the pump.</p>	<ol style="list-style-type: none"> 1. Ensure that the power is turned on and check the connection to the power point. 2. Fuse may have blown. Contact a pump technician or contact your local Reece branch to replace fuse. 3. Electrical power line may have been damaged.
	<p>The isolation valve on the suction line may be shut.</p>	<p>Check the isolation valve and ensure that it is open at the water source (tank outlet).</p>
	<p>There may be bad signal from the float switch. <i>*Only applicable if application is using a digital water switch.</i></p>	<p>Check the installation and operation of the float switch. Refer to page 22 on how to install the float switch.</p>




SYMPTOM	CAUSE	SOLUTION
	<p>The pump may be sucking air.</p>	<p>Check that the level of liquid in the tank has not dropped below the minimum priming level (8m). There may be also be a leak in the suction pipe:</p> <ol style="list-style-type: none"> 1. Close the isolating valve on the discharge line side of the pressure controller to see if the issue continues. 2. If it does, check the pressure control for debris or suction pipe for leaks. 3. If it does continue, then check pressure control and suction pipe for debris. 4. If found, repair or replace suction line.
	<p>The in-line strainer on the suction line may be blocked.</p>	<p>If you do not regularly clean the filter, it will clog up and cause the pump to fail.</p> <ol style="list-style-type: none"> 1. Close the isolating valve on the suction line. 2. Remove/clean in-line strainer or replace if necessary. 3. Once in-line strainer has been cleaned, open isolating valve on suction line and retry for pressure.
	<p>The mesh filter in the digital water switching unit may be blocked. <i>*Only applicable if application is using a digital water switch.</i></p>	<p>If a digital water switching unit is installed:</p> <ol style="list-style-type: none"> 1. Switch off power to the unit. 2. Isolate the water lines and remove the pump barrel union. 3. Inspect/clean/replace the switching unit mesh filter.
	<p>The liquid column may be above the check valve on the discharge line.</p>	<p>The weight of water can force the check valve on the discharge line to close. This prevents air being expelled from casing and suction line, affecting the pump's self-priming performance. Ensure water is completely drained above the level of the check valve.</p>
<p>No water supply at all.</p>	<p>The rainwater tank may be empty.</p>	<ol style="list-style-type: none"> 1. Check the tank level. 2. If empty/low, wait for the tank to refill.
	<p>There may be blockage in the pipework.</p>	<ol style="list-style-type: none"> 1. Close the isolating valves on the suction and discharge lines. 2. If switching from tank and mains water, close the isolating valve on the mains line also. 3. Check pipework and devices for debris 4. If found, clean or replace pipework. 5. Open isolating valves again to check and ensure flow rate is sufficient.

TROUBLESHOOTING

SYMPTOM	CAUSE	SOLUTION
<p>No water supply at all (continued).</p>	<p>The mains water valve may be closed. *Only applicable if application is using a digital water switch.</p>	<p>Check that the mains water isolation valve is open.</p>
	<p>Incoming mains water pressure may be greater than 1000kPa. *Only applicable if application is using a digital water switch.</p>	<p>Fit a pressure reduction valve to reduce incoming mains pressure.</p>
<p>The Green LED light on the pressure controller is not on. *Only applicable if application is using a pressure controller.</p>	<p>Power to the pressure controller may not have been turned on.</p>	<p>Check the power supply.</p>
	<p>The pressure controller may not have restarted.</p>	<p>The pressure controller is still in 'lock out' mode, meaning it has detected a loss of prime (tank empty). If the tank has been refilled with rainwater, the pressure control can be manually reset by pressing the "Restart" button on the device.</p>
<p>Pump "Error" or RED LED signal appears on the Pressure Controller. *Only applicable if application is using a pressure controller.</p>	<p>The pump may have failed to prime (i.e. the tank is empty, no water is being detected).</p>	<p>The pressure controller is protecting the pump against loss of prime.</p> <ol style="list-style-type: none"> Simply press the "Restart" button. If the system fails again, the unit is detecting that there is air in the suction pipe and has shut down to protect the pump from long term damage. Check there is water in the tank. Check the pressure gauge on the side of the pressure control to determine if that model pump is operating correctly when referencing its pump curve. Activate all appliances/outlets. sequentially from the nearest to the furthest outlet. Repeat if necessary. If problem persists, please contact the Reece branch where the pump was purchased from.
		<p>The suction pipe diameter may be too small and causing high pressure loss or cavitation. Increase the pipe size to an internal diameter that is the same size as the suction inlet, or larger. Note: This means for a 25mm inlet pump a 32mm PN12.5 Poly Pipe must be used.</p>



SYMPTOM	CAUSE	SOLUTION
		<p>There may be debris caught within the first impeller not allowing pressure to be created:</p> <ol style="list-style-type: none"> 1. Disassemble pipework and pump housing. 2. Clean impellers. <p> It is recommended to call a pump technician or licensed professional.</p> <p>The system may have a large pipe network to charge and the pump is running high flow with no pressure.</p> <ol style="list-style-type: none"> 1. Close the isolating valve on the discharge line to almost 90% closed. 2. Restart to ensure the pump has head pressure and fills the line slowly.
<p>The Digital Water Switching Unit has gone into “loss of prime” (no water is being delivered to pump). <i>*Only applicable if application is using a digital water switch.</i></p>	<p>The pump may have failed to prime (i.e. the tank is empty, no water is being detected).</p>	<p>Once the tank has filled with water to an adequate level prime the pump and press the ‘Reset’ button.</p>
	<p>The valve on or between tank and switching unit inlet may be closed.</p>	<p>Open the isolating valve on the suction line between the tank and switching unit.</p>
	<p>The mesh filter in the water switching unit is blocked.</p>	<ol style="list-style-type: none"> 1. Switch off power to the unit. 2. Isolate the water lines and remove the pump barrel union. 3. Inspect/clean/replace the switching unit mesh filter.
<p>No water is delivered from mains. <i>*Only applicable if application is using a water switch device.</i></p>	<p>There may be no mains water available.</p>	<p>Check the isolation valve on the water meter.</p>
	<p>There may be debris caught in the mechanical switching valve. <i>*Only applicable if application is using a mechanical water switch.</i></p>	<p>If a mechanical switching valve is installed, open the bleed plug.</p>

WARRANTY

You have purchased a quality product from Reece Australia. This product is covered by a 2 year product warranty, 1 year parts and labour. This warranty covers faults in the product construction, material, and assembly.

The first 12 months are covered by an onsite visit from service agent after assessed by Reece After Sales and deemed a possible product fault. Infield service may also be conducted digitally in circumstances where an agent cannot physically attend the site. Warranty is subject to an evaluation by the agent based on installation instructions set out in the product manual.

A service fee may be charged to the customer if an aftersales service call is attended, and the fault is deemed to be a result of incorrect installation, or the points outlined below. Please note the site environment and associated product must be accessible and safe workplace for the service agent.

If a product is suspected of being faulty, please return to the Reece store it was purchased from and the product will be inspected by an authorised Reece representative. Products which are found upon inspection to be defective in construction, material, or assembly, will be repaired or exchanged with an equivalent product free of charge within the warranty period outlined above. Replaced items become Reece's property. Charges may apply if installation terms have not been met. All replacement products will be available for collection without charge to the customer at the nearest Reece branch to the customer's location, or elsewhere as agreed between the customer and Reece. Please note, warranty repairs may only be performed by our service representatives or an authorised customer service workshop, and any attempt to repair the device by the customer or unauthorised third parties shall terminate the warranty.

WARRANTY CONDITIONS

The warranty will apply only under all the following conditions:

- The pump has been installed by a qualified, licensed personnel.
- The pump is returned in good condition and has not arrived damaged.
- The pump is located so that it will NOT be prone to freezing.
- The pump is being used with clean water only and is NOT being used with alternative fluids specifically abrasive, corrosive, or explosive fluids.
- The pump is isolated from electrical supply during installation and any subsequent service work.
- The electrical installation is in accordance with the national wiring rules (AS/NZS 3000).
- The pump has NOT been lifted/moved/ carried by the electrical or float switch cables.
- The steps outlined in this manual and all accompanying quick start guides have been adhered to.
- The pump has been installed for and subjected to domestic residential use only subject to local building a municipality guideline.
- Failure is due to a fault in the manufacture of the project. In this case, proof of purchase, date of purchase and serial number is required.



This warranty does not include faults caused by:

- Failure to adhere to the conditions above.
- Normal wear and tear.
- Inadequate or complete lack of maintenance.
- Chemical, electrochemical, or electrical influences.
- Harsh detergents or abrasive cleaners used on product finishes.
- Unsuitable or improper use.
- Incorrect installation or installation not in accordance with the instructions provided.
- Inadequate protection of the pump.

EXCLUSIONS

To the fullest extent permitted by law, Reece excludes all liability for damage or injury to any person, damage to any property and any indirect consequential or other loss or damage. To the maximum extent permitted by law, Reece excludes all warranties other than those set out above.

