

REWATEC™

Residential Pump Stations



Owner's Manual & Installation Guide

Rewatec Residential Pump Stations
RVPS1800, RVPS2800, RVPS3550, RVPS5300

Manual Version OM0036

Created On: May 2021



**Installers: To Safeguard Warranty Please
Ensure You Are Using The Latest
Installation Manual**

Customer Checklist

Complete Installation Record



Page 4

See Maintenance Schedule



Page 5

Complete Warranty



Page 7

Familiarise Yourself With This Document



Page 8

Installation Record

Please record details of your Vertical Pump Station installation here and keep this document in a safe place.

Unit Installed (Please Tick)

☐ RVPS1800-S

☐ RVPS1800-D

☐ RVPS2800-S

☐ RVPS2800-D

☐ RVPS3550-S

☐ RVPS3550-D

☐ RVPS5300-S

☐ RVPS5300-D

Pump Selection (Please Tick)

☐ Low Head (2/110)

☐ Medium Head (2/150)

☐ High Head (2/220)

Serial Number:

Commissioning

Date:

Commissioning Company

Name: -----

Address: -----

Contact: -----

Service Company

Name: -----

Address: -----

Contact: -----

If you require assistance finding a service company, please contact Premier Tech. Your warranty is invalidated if you do not keep to a regular servicing schedule.



PT Water and Environment UK

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Rewatec Maintenance Schedule

Details of servicing & maintenance requirements are located within this manual.
Please use this page to record your tanks services and maintenance.

Your warranty is invalidated if you do not keep to a regular servicing schedule.

6 Month Check

Date:

Servicing Company:

Notes:

12 Month Check

Date:

Servicing Company:

Notes:

18 Month Check

Date:

Servicing Company:

Notes:

24 Month Check

Date:

Servicing Company:

Notes:

30 Month Check

Date:

Servicing Company:

Notes:

36 Month Check

Date:

Servicing Company:

Notes:

42 Month Check

Date:

Servicing Company:

Notes:

48 Month Check

Date:

Servicing Company:

Notes:

Rewatec Maintenance Schedule

54 Month Check

Date:

Servicing Company:

Notes:

60 Month Check

Date:

Servicing Company:

Notes:

66 Month Check

Date:

Servicing Company:

Notes:

72 Month Check

Date:

Servicing Company:

Notes:

78 Month Check

Date:

Servicing Company:

Notes:

84 Month Check

Date:

Servicing Company:

Notes:

90 Month Check

Date:

Servicing Company:

Notes:

96 Month Check

Date:

Servicing Company:

Notes:

Premier Tech guarantee the GRP structure of the pump chamber when installed by an approved installer in strict accordance with the installation guidelines. Warranty periods as follows:

- GRP Shell for a period of 20 years.
- Internal Pipework including valves for a period of 1 year.
- Mechanical & Electrical items for a period of 1 year.

Warranty will be invalid if the following maintenance requirements are not adhered to:

Weekly – *(This operation can be carried out by the owner).*

Check the operation of the unit. With the unit running, remove access cover and confirm that the level of effluent in the pumping chamber is below the inlet pipe. Confirm operation of the pump(s) by waiting for it to start when the float switch becomes vertical.

6 Monthly – *(This operation is to be carried out by a service provider).*

Check the condition of the pump(s). Switch the power supply off at the control panel or socket. Remove each pump in turn. Remove the impellor guard. Carefully remove any accumulations of debris with the assistance of a hose if available. Replace any damaged components eg. Impellor, guard etc. Pay particular attention to the non-return valve(s) and ascertain their correct operation. If in doubt, replacement of these items is recommended. Re-assemble in reverse order to the above. On completion, turn the station back on.

Only human waste or grey / surface water should enter the pumping station. Baby wipes, items of clothing or plastic and debris can damage the pumps.

Failure to comply with the above Terms and Conditions will invalidate the warranty.

Premier Tech Water & Environment Ltd accepts no liability for any damage or loss, including consequential loss, caused by the failure of any equipment supplied.

Premier Tech Water & Environment Ltd warranty does not cover third party labour costs, installation costs (direct or indirect) and indirect or consequential damages in connection with such tanks.

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Installation Instructions

Care has to be given on selecting the right location for the pumping station and how the final effluent is discharged. The contractor should ensure the pump(s) and associated equipment have not been damaged during transport. The contractor is responsible for offloading all items of equipment with due regard to the following:

- DO NOT lift the tank if it contains water.
- DO NOT subject the unit to sharp impacts.

The lifting procedures outlined above have been developed to ensure the safe handling of the unit. Failure to comply may result in damage to the unit and/or injury to personnel. When working in deep excavations, ensure all necessary safety precautions are taken to provide safe working conditions for site personnel. The only time anyone needs to be working at the bottom of the excavation is when levelling the base and ensuring that the first back-fill is correctly placed.

- NEVER wholly fill the sump with water before surrounding it in concrete.
- NEVER partly or wholly surround the sump with concrete before filling it.

Do not use vibrating pokers to compact the concrete. Facility must be provided for cable entry into the unit, through the cable grommets which will be already in place. The electrician responsible for the wiring should be consulted, to ensure a correctly sized duct is provided.

The installer is responsible for determining the concrete thickness and strength required for the actual ground conditions; taking into account water table level and traffic loadings.

The installation should be carried out in accordance with the requirements of the Construction and Building Regulations along with the United Kingdom Health and Safety at Work Act (HASAWA) 1974.

Tank Installation

During the course of the installation, the following minimum equipment will be required:

- Normal Construction equipment and systems.
- Concrete to 20 N/mm and 30-50mm slump
- An Adequate supply of fresh water to fill the chamber at the same rate as backfilling.
- De-watering equipment as necessary.
- Lifting straps or ropes of the correct length and adequate safe working load.

Please refer to UTG9502 concrete installation guideline for the installation of your vertical pumping station. The instructions offered are for guidance only. It remains the responsibility of the installer to ensure the correct installation of the vertical pumping station.

Tanks must not be subjected to buoyant forces during the installation, take account of ground water levels and surface water run-off and their accumulation in the tank excavation.

Lift the tank into position taking care not to damage any internal or external pipework. Check for correct orientation of the inlet and outlet pipework. Ensure that the unit is level in all directions.

Electrical Installation

It is not possible to state a specific installation configuration that would suit all sites. To ensure a safe and cost effective installation, the selection of current protection device and the power cable feeding the station is the responsibility of the installer as the person best qualifies to access site conditions and supply configuration.

It is imperative that electrical installation of this equipment is entrusted to a fully qualified electrician. When installation the electrical supply to the pumping station, the following points should be considered:

1. Pumps and float switches are provided with 10 meters of cable. Junction boxes and additional cables can be used to extend these cables.; ensuring they are terminating in weatherproof glands.
2. The supply of the pumping station should be provided by a dedicated circuit via isolation and protection devices consistent with the requirements for fixed equipment and in accordance with the latest regulations.

Failure to comply with the following could result in the invalidation of warranty:

1. All connections made to the control panel should be via correctly sized and rated glands.
2. Check all power terminations for tightness prior to commissioning. Loose connections will cause localisation overheating with the possibility of fire.
3. Suitably sized cable protected in a cable duct or suitably sized steel-armoured cable should be used to run between the control panel and electrical supply point.

Correct installation of the pump station is required for correct plant operation and is a requirement for the plant warranty to be valid.

Pump Installation and Removal

The pumps should be installed ensuring that they do not hinder the operation of the float switches. The pumps are to be lowered into the tank using the chains and guiderails provided. The pumps will then locate onto the installed pump pedestal and should be submerged in liquid, not letting the pumps to run dry.

All float switches should be installed such that they can move freely and operate without becoming caught in any one position.

The high level float switch should be installed such that the alarm operates to indicate that the inlet pipe is full and now will be backing up flows in the up steam drainage.

After ensuring that the guiderails are correctly positioned and fixed in place the pumps can be attached in the following sequence:

1. Fix the chain and hooks provided in a suitable position within the tank manway access where they will not impede pump operation and are easily accessible from the surface.
2. Fix the chain to the pump; ensure that the chain cannot accidentally fall into the chamber.
3. Ensure that the pump motor electrical wiring cannot accidentally fall into the chamber.
4. The pumps can now be lowered slowly down into the tank.
5. Hang the chain of the chain hooks.

Pump Station Start-Up Procedure

The unit should be commissioned before flow is allowed to enter the system.

1. Check the correct installation of the outlet pipework and ensure that the delivery isolation valve is open.
2. Ensure the pump stations incoming and discharge pipes are free from rubble and building debris.
3. Fill chamber with clean water up to the level of the high level float switch.
4. Check operation of the pump ensuring that the level in the chamber drops until the float switch stops the pumps.
5. Turn the isolation to the Off position.
6. Fill the chamber with clean water until the high level alarm is covered.
7. Turn the isolation to the On position.
8. Check the high level alarm condition is indicated on the control panel.
9. If configured for duty/standby operation, check both pumps are in operation.
10. Allow drainage to enter the pumping chamber.
11. Replace the tank cover and the pumping station is now operational.

When turning the pump station off:

1. Switch the power of the plant Off.
2. The pump(s) should be raised above the level of the residual liquid or removed completely.
3. If you experience difficulties during the start-up, commissioning or shutdown of the plant, please refer to the fault finding section of this manual.

Fault Finding

Pumps not running:

Causes:	Remedy:
Power Cut	Do nothing. When the power is restored the system will restart automatically.
Control panel supply MCB tripper	Switch off the power and reset the MCB. Switch back on and the system should restart automatically. If it does not, switch off the power and call a qualified electrician.

Pumps run but liquid is no being pumped:

Causes:	Remedy:
Debris blocking pump	Remove pump and unblock ensuring that the impellor etc is not damaged and turns freely before reinstalling in to the tank. Ensure cause is removed before restarting.
Blockage in pipe	Pipe run to be unblocked.
Flooded discharge point	Discharge point i.e soakaway / watercourse / tank etc to be investigated.
Faulty pump	Replace pump. Ensure cause is removed before restarting.

Liquid returning to chamber when pump stops:

Causes:	Remedy:
Faulty non return valve	Remove and inspect valve as per maintenance schedule. Clean or replace as necessary.

