

REEFE POOL PUMP & **SAND FILTER KIT**

INSTRUCTION MANUAL



RPSF1235

CONTENTS

Important Safety Information	3
Sand Filtration System Method of Operation	3
Preparation Before Installation	3
Specifications & Performance Data	5
How to Install the Filter Tank	6
Installation Notes	8
How To Use	8
Initial Filter Start Up	8
Cleaning the Filter	9
Filter Control Valve Functions	9
Warranty	10

IMPORTANT SAFETY INFORMATION

READ THIS ENTIRE DOCUMENT BEFORE INSTALLING

1. The sand filters are designed to work with water at temperature > than 0°C and < than 45°C and ambient temperature > than 1°C and < than 40°C. The filter should never be operated outside of these temperatures or damage may occur.
2. The installation should be carried out in accordance with the safety instructions of swimming pools and the specific instructions for each facility, and in accordance with all applicable Australian Federal Government, State Government and Council / Shire regulations and by-laws, including but not limited to Electrical and Plumbing regulations and applicable Australian Standards, it is the installers and users responsibility to ensure compliance with all mandatory regulations, standards, and laws.
3. The user must ensure that the installation is carried out by qualified authorized persons and that these persons have read the following instructions. Incorrectly installed equipment may fail, causing severe injury and/or property damage.
4. The operating safety of the filter is only guaranteed if the installation and operation instructions are correctly followed.
5. To reduce the risk of injury, do not permit use by children or infirm or incompetent persons.
6. Chemical spills and fumes will damage the appliance. Corrosion can cause filters and other equipment to fail, resulting in severe injury or property damage. Do not store pool chemicals near this equipment.
7. Any modification of the filter requires the prior consent from the Supplier. Only original replacement parts and accessories authorized by the manufacturer are to be used, to ensure safety. The supplier assumes no liability for damage and/or injury caused by unauthorized replacement parts and accessories.
8. In the event of defective operation or fault, contact the supplier or its nearest authorized service agent.
9. **WARNING – EXTREME DANGER** The filter operates under high pressure!! Air can enter the system and become pressurised when any part of the of the filtrations system is serviced – or air has otherwise been allowed to enter the filter. Pressurised air can cause the lid to blow off which can result in serious injury. To avoid this potential hazard, follow the instructions precisely.

SAND FILTRATION SYSTEM METHOD OF OPERATION

Incoming water from the piping system is automatically directed by the Multiport Valve to the top of the filter bed. As the water is pumped through the filter sand, dirt and debris are trapped by the filter bed, and filtered out. The filtered water is returned from the bottom of the filter tank, through the Multiport Valve and back through the piping system.

PREPARATION BEFORE INSTALLATION

1. Position the filter as close to the Swimming Pool/ Spa as possible.
2. The filter should be placed on a firm level concrete slab, or equivalent. Ensure that the ground will not subside, preventing any strain from the attached pipework.
3. Position the filter with consideration for future maintenance, so that it is convenient for operating and servicing.
4. Ensure that the compliance label is facing the front to allow easy identification in the case of service difficulties.
5. **POWER OFF!!** Before installing or while handling, repairing, cleaning or servicing this pump, be certain the electrical power is disconnected from the pump.
6. **IMPORTANT INSTALLATION REQUIREMENT:** No electrical appliances last forever. Therefore ALL installations of pumps must be constructed to allow the owner to easily remove the pump for servicing, and to easily remove the pump for replacement, warranty replacement or upgrading. Warranty replacement does not include costs of removal and re-installation as we have no control over the method of installation.

7. PIPE SIZING: ENSURE that a suitable pipe size is used – typically pipe the same size as the pump outlet for short run, go up a size for longer piping distances, up to 5m. For piping that is longer than 5m please confer with your dealer or pump specialist to be certain you do not restrict the pump as this will reduce the performance and the lifespan of the pump. BE AWARE that a long pipe that is too small has the same effect as trying to “lift” the water too high and the performance of the pump is greatly reduced or may stop altogether.

8. ELECTRICAL CIRCUIT & WIRING:

- a) Installation and electrical wiring must adhere to national, state and local codes and must be completed before using the pump. All Electrical wiring must be performed by a Licenced Electrician.
- b) Pump must be connected to a circuit of suitable size for the power requirement of the pump, with a RCD (safety switch) having a rated residual operating current not exceeding 30mA – recommended type is a circuit breaker with integrated RCD.
- c) Plugging into shared outlets or extension leads may cause low voltage supply to the motor, causing blown fuses, tripping of motor overload, or burnt out motor. The recommended method is to have the pump on its own separate circuit.
- d) Surge Protection - We recommend that a surge protector is used to protect the electronics of the pump, as damage due to power surges is not covered by the Warranty
- e) The voltage of the power supply must match the voltage of the pump – 230 to 240 volt AC except for 3-Phase pumps which are 415Volts. We do not recommend generator power.

9. WARRANTY VOIDED: The following may cause severe damage to the pump and automatically voids the warranty:

- a) Using an extension cable for power supply.
- b) Cutting the earth pin off the plug or using an adapter fitting or double adapter.
- c) Working on the pump while it is connected to the power supply.
- d) Removing/opening the cable entry point, or the motor housing, unscrewing impellor, or otherwise removing impellor seal (except if this work is done by a qualified Pump Technician)
- e) Pumping chemicals, corrosive liquids or flammable liquids or pumping hot liquids (Exceeding the temperature on the nameplate)
- f) Lifting or moving the pump using the power cable.
- g) Dry operation which will destroy the pump seals.
- h) Installing the pump inside an enclosed space in such a manner as you cannot remove the pump – this is against best practice and no warranty cover applies in this case.

10. PUMP NOT PUMPING: If the pump does not pump water, check the discharge pipework is free from airlocks or other obstructions. Check that any non-return valves are fitted with the arrow in the correct direction of flow, and are not jammed shut with glue or debris.

11. OVERLOAD PROTECTION: most models have a built in thermal protection switch. The pump stops if an overload condition occurs. The motor restarts automatically after it has cooled down when the built in thermal protector resets itself. If this problem continues it must be investigated and rectified by a competent person.

12. IMPORTANT NOTE: Do not switch the pump on and off frequently, as this will cause damage to the electronics and void warranty.

13. If the pump is idle for a long period of time or in very low temperature, it should be removed, washed clean and stored in a dry & safe place.

14. COMMERCIAL &/OR INDUSTRIAL USE: specific applications in commercial or industrial situations require specialist advice which may not be covered in this instruction manual. It is the installer & user's responsibility to obtain specialist advice and to ensure that the pump used is suitable for their application. Warranty is limited to replacement only, of pumps that are proved to have a manufacturing defect, when used in SUITABLE commercial or industrial applications. No warranty applies when used in unsuitable applications.

WARNING: MANDATORY INSTALLATION CONDITION: THE PREMISES WHERE THE PUMP & SAND FILTER IS INSTALLED MUST BE PROTECTED BY A SAFETY SWITCH (RCD) – **DO NOT INSTALL WITHOUT THIS PROTECTION**

DANGER: Keep the pump equipment protected from interference by children or pets! The appliance is not intended for use by children or infirm or incompetent persons.

WARNING: This pump is designed for water only. It must **NOT** be used for Hazardous or flammable liquids. It must NOT be used in locations classified as hazardous, which include but are not limited to, mine sites, industrial factories, chemical processing plants, petrochemical plants.

SPECIFICATIONS

Specifications are approximate and subject to change without notice. Amps and wattage vary according to the operating load. Refer to the nameplate of the pump for the basic performance data. Images shown are examples only, design, shape & colours differ, but the basic principles of operation are the same. Do not exceed the given specifications in the use of the system, or use for purposes for which the system is not designed. It is the installers and users responsibility to ensure that the product is suitable for the intended application.

PERFORMANCE DATA

Refer to the nameplate of the pump then search the model number on our website www.reefe.com.au for the current tech data sheet.

WARNING: The pump cannot be used for flammable, corrosive, explosive or dangerous liquids, nor in hazardous areas. Ensure that the pump never runs without water.

DISCONNECT from the power supply before servicing or working on the pump

WARNING – EXTREME DANGER

The filter operates under high pressure!!

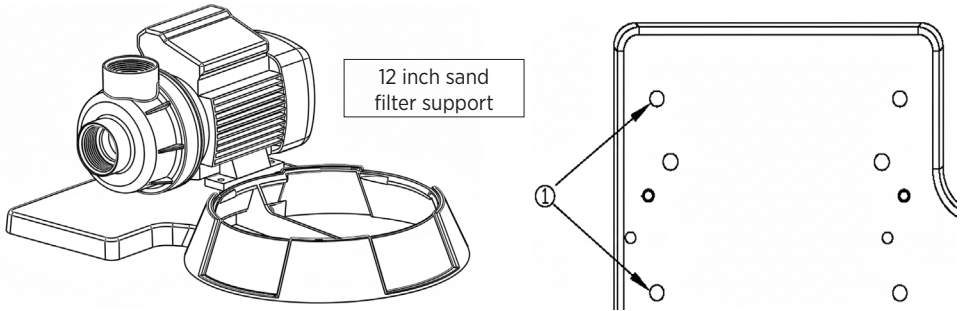
Air can enter the system and become pressurised when any part of the of the filtrations system is serviced – or air has otherwise been allowed to enter the filter.

Pressurised air can cause the lid to blow off which can result in serious injury.

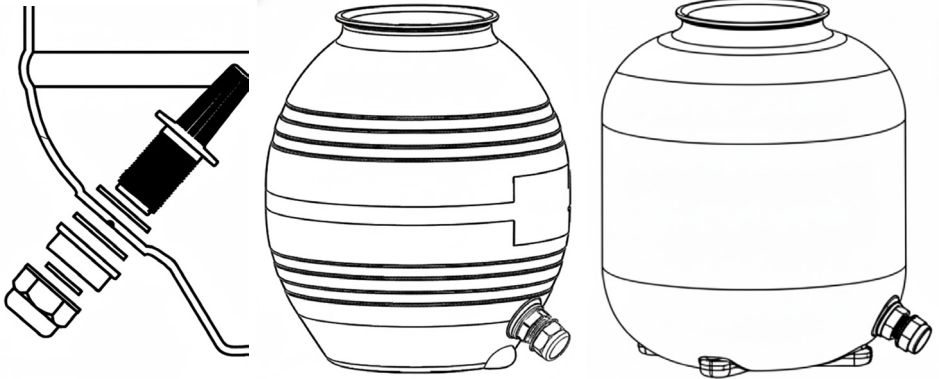
To avoid this potential hazard, follow the instructions precise.

HOW TO INSTALL THE FILTER TANK

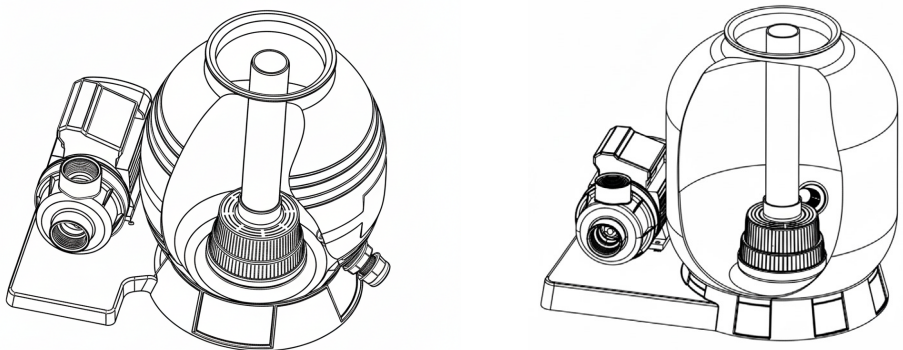
1. Mount the Pump to sand filter base by using bolts and nuts.



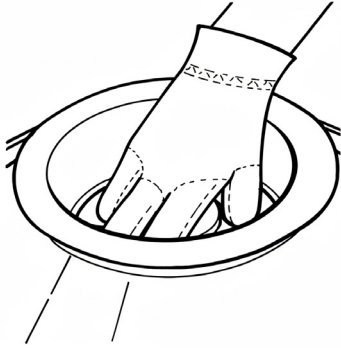
2. Install the drain plug assembly to the sand tank as per below.



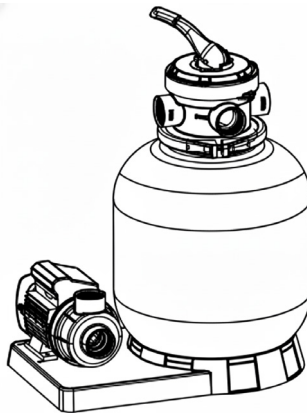
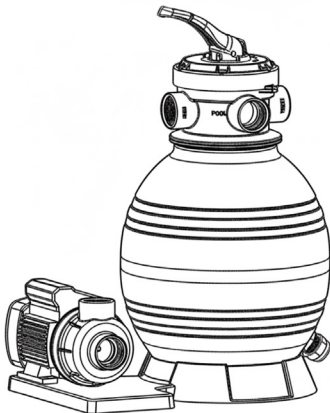
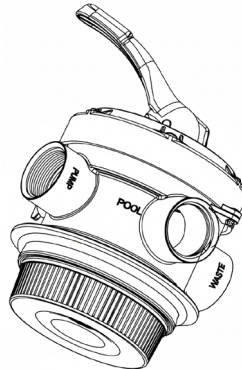
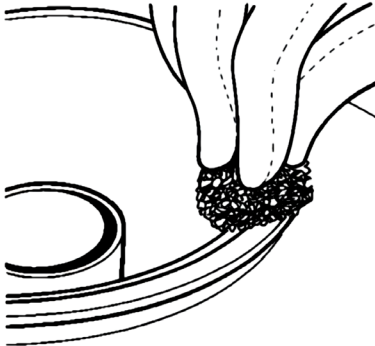
3. Press and turn the sand tank to mount it to the sand filter base, ensure the drain plug is facing outwards as per below pictures.



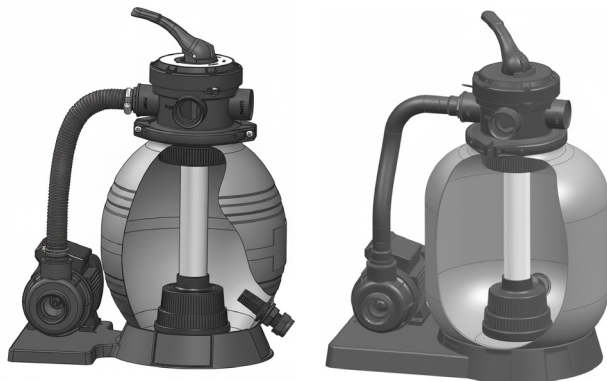
4. Insert the tube with the diffuser body inside the tank as above picture, then place a funnel on the tank's mouth and pour quartz sand into the tank. The sand required is #20 Silica Sand (0.018 to 0.022inch size). The 12 inch sand filter needs about 19kg of sand to fill the tank, 14 inch sand filter needs about 27kg sand to fill the tank.



5. Take away the funnel, and then ensure the tank's neck is very clean, no sand particles are to remain on the sealing surfaces. Fit the O-ring on the valve and use clamp to fix the valve with tank. **IMPORTANT:** the direction of "PUMP" port on the valve needs to face the pump.



6. Connect the sand tank to pump with hose, hose clamps and hose adaptors as shown below.



INSTALLATION NOTES

1. Ensure the filter is not operating over the allowable pressure, use a pressure control valve if using a booster pump.
2. If the pump position is higher than the water level, it requires a back flow prevention valve to be installed (Swing Check Valve)
3. If the pump position is lower than the water level, it requires an isolation valve to be installed. (Inline ball valve) This is necessary to prevent water backflowing during maintenance and inspection.
4. Minimise the joints, bends and pipework as much as possible. Every additional fitting or valve and length of pipework reduces the efficiency of the pumps operation.
5. Ensure glue and / or solvents are not excessively applied to fittings as this will damage O-rings and cause leakage.
6. Do not over tighten fittings or adapters.

HOW TO USE

1. Inspect all the connections have been done correctly and are secure.
2. Depress top mount valve handle and rotate to BACKWASH position.
3. Prime and start pump according to pump instructions.

IMPORTANT: ALL SUCTION AND DISCHARGE VALVES MUST BE OPEN WHEN STARTING THE SYSTEM. FAILURE TO DO SO COULD CAUSE SEVERE PERSONAL INJURY.

IMPORTANT: ENSURE THE FILTER VESSEL IS FULL, FILL IT WITH WATER BEFORE STARTING THE PUMP, OR IT WILL CAUSE DAMAGE TO THE PUMP WHICH IS NOT COVERED BY WARRANTY.

INITIAL FILTER START UP

1. Ensure the backwash line is open and clear, turn the control valve to backwash mode.
2. Open the manual air bleed valve, remove air from the system and ensure smooth water flow.
3. Standing near the filter pump, allow the water storage tank to full fill with water, then begin the backwash process. When water flows from the backwash line steadily, the system is full and backwash can work.
4. Turn off the pump, set the valve to filter mode. After backwashing is finished, turn off the pump and turn the valve back to filtration mode, ensuring the backflow valve is open.
5. Standing near the filter pump, open the manual air bleed valve, close the air bleed valve when a steady flow of water is observed. Before restarting the system, bleed air until the water flow stabilizes.
6. Confirm water is returning to the pool and record the clean filter pressure. Finally, check the system has returned to normal operation and record the filter pressure reading for reference.

CLEANING THE FILTER

If the flow rate decreases significantly or the pressure gauge reading is 10 psi higher than the pressure when the filter was cleaned, cleaning is required.

1. Turn off the pump, turn the valve to the backwash mode and ensure the backwash line is open.
2. Standing away from the filter, start the pump to backwash until the wastewater is clear all given away (approximately 3-5 minutes).
3. Turn off the pump, turn the valve to the rinse mode, standing away from the filter, and start the pump for 30 seconds.
4. Turn off the pump, turn the valve to the rinse mode and ensure the return line is open. Open the air bleeder, standing away from the filter, start the pump. Close the air bleeder valve when a steady flow of water is observed, the system works normally.

NOTES:

1. Note the initial pressure gauge reading when the filter is clean. (it will vary from pool depending upon the pump and general piping system). As the filter removes dirt and impurities from the pool water, the accumulation in the filter will cause the pressure to rise and flow to diminish. When the pressure gauge reading is 8-10 PSI (0.55-0.69 BAR) higher than the initial "clean" pressure you noted, it is the time to backwash (clean) the filter.
2. IMPORTANT: To prevent unnecessary strain on piping system and valving, always shut off pump before switching filter control valve position.
3. To prevent damage to the pump and filter and for proper operation of the system, clean pump strainer and skimmer baskets regularly.

FILTER CONTROL VALVE FUNCTIONS

FILTER - Set valve to FILTER for normal filtering. Also use for regular vacuuming.

BACKWASH - For cleaning filter. When filter pressure gauge rises 8-10 PSI (0.55-0.69 BAR) above start-up (clean pressure):

Stop the pump, set valve to BACKWASH. Start pump and backwash until water in sight glass is clear. Approximately 2 minutes or less depending on dirt accumulation. Proceed to RINSE.

RINSE - After backwashing, with pump off, set valve to RINSE. Start pump and operate for about 1/2 to 1 minute.

This ensures that all dirty water from backwashing is rinsed out of the filter to waste, preventing possible return to the pool. Stop pump, set valve to FILTER and start pump for normal filtering.

DO NOT ATTEMPT ELECTRICAL REPAIRS OF ANY SORT UNLESS YOU ARE A LICENSED ELECTRICIAN

WARNING – EXTREME DANGER

The filter operates under high pressure!!

Air can enter the system and become pressurised when any part of the of the filtrations system is serviced – or air has otherwise been allowed to enter the filter.

Pressurised air can cause the lid to blow off which can result in serious injury.

To avoid this potential hazard, follow the instructions precisely.

In the case of a fault with the system, please check all of the above instructions to ensure the system is installed and operated correctly. After completing this, if the fault continues, and if the pump is within warranty period call our WARRANTY DEPARTMENT on 07 3893 5000 who will issue authorisation of repair or replacement. We will require a copy of your purchase receipt and the below installation checklist, sent by Email to csv@ascento.com.au or MMS to 0434 687 825

Alternatively, you can return the pump to the place of purchase for a refund, if it is still in warranty.

WARRANTY RECORD - FILL IN AND RETAIN THIS WITH YOUR ORIGINAL PURCHASE RECEIPT

PURCHASER NAME & ADDRESS _____

PHONE NO _____ DATE OF PURCHASE ____ / ____ / ____

DEALER/STORE NAME _____

DEALERSUBURB/TOWN _____ PHONE NO _____

BRAND & MODEL NUMBER OF PUMP _____

BATCH or SERIAL NUMBER _____

Do NOT send this form to us, retain it for your record.

INSTALLATION CHECKLIST: MUST BE FILLED IN FOR WARRANTY TO APPLY

Installer Name _____

Qualification: _____ (write Owner if applicable)

Phone Number: _____

If installed by a Plumber or Electrician, Licence No: _____

Installation Address: _____

Tick the boxes as the item is completed/correct, put n/a if not applicable;

- ☐ The Pump is being used for an appropriate purpose for which it is intended, according to the instructions
- ☐ The Power Circuit the Pump is connected to is RCD (Safety Switch) Protected
- ☐ Barrel Unions are fitted on the pipe connections for easy removal & replacement
- ☐ The necessary backflow Valve(s) are fitted to the discharge pipe to prevent back-flow
- ☐ Pipe is sized appropriately for the application (suitable diameter and length)
- ☐ For a Pump that is installed inside an enclosed space: The installation is constructed so the pump can be removed for service
- ☐ The pump is installed in accordance with applicable National & State & Local Regulations
- ☐ The Electrical Supply cable is protected in an appropriate manner in accordance with the current standard of Electrical Safety Regulations AS/NZS 3000
- ☐ There is an isolation switch included (this must only be done by a Licenced Electrician)
- ☐ The pipes and connections and the barrel-union on the pump, have been checked for leaks.
- ☐ The Owner has been shown how to access & clean & prime & re-set the pump & filter

Signed by the Installer: _____ Date Installed: ____ / ____ / ____

WARRANTY AGAINST DEFECTS

2 Year Warranty applies

Please scan this QR code to view or download a copy from our website at www.reefe.com.au/warrantyterms. Or you may request a copy by emailing csv@ascento.com.au or by writing to Ascento Warranty Terms PO Box 650 Morningside QLD 4170 or call us on 07 3893 5000 and request a copy.



thank you for your purchase

ASCENTO GROUP AUSTRALIA

ABN 20 527 073 843

www.reefe.com.au

37 Export St Lytton QLD 4178

07 3893 5000

PO BOX 650 Morningside QLD 4170

csv@ascento.com.au