



by **HY-CLOR**

Installation & Operation Manual



Sand Filter Swimming Pool

For further information
call **1800 625 123**
www.hyclor.com.au

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HY-CLOR AUSTRALIA PTY LIMITED
ABN 81 000 655 381
Level 5, 15 Orion Road, Lane Cove NSW 2066, AUSTRALIA
help@hyclor.com.au

INTRODUCTION

Congratulations on purchasing your Poseidon swimming pool sand filter.

Poseidon sand filters are manufactured to the highest standards using the latest moulding techniques and will provide you with many years of reliable service.

This installation and operation manual provides you with all the information and tips necessary to successfully install your Poseidon sand filter.

Should you experience difficulties whilst installing or operating your filter please contact our customer service centre on **1800 625 123**

Poseidon sand filters can be installed in new and existing swimming pool applications.

In new swimming pool applications the filtration equipment should be installed as close as practical to the swimming pool.

Take into consideration all local or state laws and regulations regarding electrical installation as the electric pool pump needs to be installed alongside the sand filter.

When replacing an existing filter system with your new Poseidon sand filter you must allow sufficient room for the sand filter to fit and just as importantly the room should be so that you can easily operate the service (multiport) valve.

A flat hard surface (preferably concrete) is required when installing this product.

Once you have positioned the filter you can commence installation. Ensure you are satisfied with the location as once the sand is placed in the filter it becomes very heavy and should not be moved.

TIP

Before commencing the installation of your Poseidon sand filter please study this diagram carefully and make sure you have all the parts as shown. You will need all parts to successfully install the Poseidon Sand Filter.

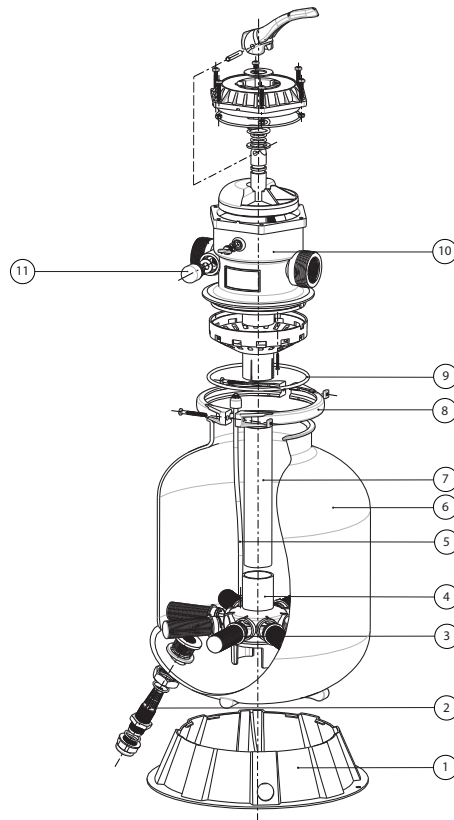


DIAGRAM NUMBER	PART NAME	PART NUMBER 19 inch FILTER	PART NUMBER 24 inch Filter
1	Tank base	SF20001	SF30001
2	Tank drain down valve	SF20002	SF30002
3	8 x Lateral	SF20003	SF30003
4	Lateral hub and stem assembly	SF20004	SF30004
5	Bleed valve and tube	SF20005	SF30005
6	Tank Body	SF20006	SF30006
7	Centre Stem	SF20007	SF30007
8	Multiport valve clamp assembly	SF20008	SF30008
9	Multiport valve o-ring	SF20009	SF30009
10	Multiport valve complete	SF200010	SF300010
11	Sight glass	SF200011	SF300011
N/S	Pressure gauge	SF200012	SF300012
N/S	Male tread barrel union	SF200013	SF300013
N/S	2 x Barrel union	SF200014	SF300014

FILTER TANK ASSEMBLY

1. Place the sand filter in the location you have selected
2. Located in the filter carton is the centre stem and lateral hub assembly. Remove laterals from packaging, place centre stem assembly inside the filter tank and attach the laterals to the hub located on the end of the assembly. To attach laterals to assembly firmly push the lateral into the hub opening and twist clockwise.

IMPORTANT: MAKE SURE EACH LATERAL IS NOT DAMAGED OR CRACKED. You will not be able to successfully install the filter if a lateral is cracked as any sand in the filter will return to the pool if a lateral is cracked.



3. Located on the base of the filter tank is a drain down valve. It is used to drain water out of the filter when required. Ensure that valve is screwed shut.
4. Carefully place the lateral stem assembly down into the filter tank. Using a garden hose put water into the filter tank covering the laterals only.



5. Place the clear plastic disc (provided) onto the top of the sand filter tank. Ensure the centre stem pipe is placed in the centre of the plastic disc. Make sure the sand filter air bleed valve is pulled through the plastic disc (as shown) in the below pictures. The disc is provided to ensure the stem is in the middle of the tank when filling with sand. The opening of the centre stem is also covered with the disc to prevent sand from going into the centre pipe. **SAND MUST NOT BE PLACED DOWN INTO THE CENTRE STEM PIPE AS IT WILL DAMAGE THE VALVE ON START UP AND VOID WARRANTY**



6. Using filter sand or Zeo-Clor, carefully place the sand into the filter tank. Ensure that the sand is slowly poured into the tank until the laterals are completely covered. Continue placing the remainder of the sand into the filter tank making sure as you go that the plastic disc is keeping the centre stem in the centre of the filter tank opening.



TIP

Ensure you firmly hold down the plastic locator disc firmly so the centre stem does not move or sand gets into the centre stem

7. Once sand has been placed in filter tank carefully remove the plastic disc ensuring that no excess sand spills into the centre stem pipe.

8. Using garden hose fill the filter tank full of water.



9. The multiport valve may now be attached to the sand filter tank.

MULTIPORT VALVE ASSEMBLY

The multiport valve comes with a pressure gauge, air bleed screw, large body o-ring, two piece clamp assembly and three barrel unions to connect to PVC plumbing.

Before fastening the valve to the filter tank body ensure there is no sand around the top lip of the filter tank.

1. Place the multiport valve onto the filter tank. Firmly press the valve down onto the tank ensuring the valve is fitted securely to the centre stem pipe. There should be no gap between the valve and tank body.



2. Rotate the multiport valve to your required position for plumbing.
3. Using the two piece clamp assembly and screws provided secure the multiport valve onto the tank body.



4. Using Teflon tape please attach the pressure gauge to the multiport valve. Do not use too much tape on the pressure gauge thread. 2 to 4 turns is all that is required
5. Attach the three barrel unions to the Multiport Valve. On the Multiport valve each plumbing port is marked. **PUMP, RETURN, WASTE.** It is easy to remember the waste line as it has a clear site glass next to its plumbing port. The line from the pump goes into the top (internal) threaded port and the last one remaining is the return to pool plumbing port. The back wash and pool return line unions simply screw to the threads on the valve. When putting the waste and return barrel unions onto the Multiport Valve ensure you locate the barrel union o-rings onto the barrel union tails. The inlet port (top) has an internal thread. Using the Teflon tape apply the tape to the threaded barrel union and screw into the Multiport Valve.



6. You have now successfully installed the multiport valve to the sand filter. Before connecting the plumbing ensure that the barrel unions are tight and the tank clamp assembly is tightened.
7. On existing systems commence the reconnection of the pump, waste line and return line using the appropriate UPVC fittings, class 9 or 12 UPVC plumbing pipe and approved glue and priming fluid.
8. The installation of the sand filter and pump is a simultaneous operation as you have had to find an appropriate place to house the equipment. In most general installations you will have either been provided with or connected yourself a suction line from the skimmer box in the pool, a return line to the pool and a waste line to the sewer. Place the pump and filter side by side allowing for the easy hook up from the plumbing. Ensure that you use the appropriate UPVC fittings, Class 9 or 12 UPVC plumbing pipe and approved glue and primer.



OPERATING YOUR POSEIDON SAND FILTER

You are now ready to commence using your Poseidon sand filter. Please follow these start up guidelines carefully.

IMPORTANT TIP: NEVER TURN VALVES WHEN PUMP IS OPERATING

1. Before starting the pump refer to pump priming section in the pump manual.
2. Place the Multiport Valve into **recirculation** position by depressing the handle and selecting 'recirculate'.
3. Prime the swimming pool pump (refer to pump manual). Turn on the pump and check for leaks in the plumbing and barrel unions. Run for approximately 2 minutes to ensure that the system is free of leaks.
4. Turn off the pump and place the filter into the backwash position by depressing the handle on the multiport valve and selecting backwash. Turn on the pump and allow the filter to be backwashed. Look at the clear sight glass located on the Multiport Valve waste discharge port and run in backwash mode until the sight glass runs clear water. This could take up to 5 minutes. Once the water is clear in the sight glass turn off the pump.
5. Turn the Multiport valve handle to the rinse position by depressing the handle and selecting rinse. The reason we do this is because the sand in the filter only half fills the filter body and there is an area between the bed of sand and the valve called (free board) which will have dirty water after the back wash. Turn on the pump and looking at the sight glass run the pump until the water runs clear. This is a much shorter running time than backwashing. Approximately 15 – 30 seconds only. **REMEMBER** every time you perform a backwash this rinse step will have to be done. Once the rinse is completed turn off the pump.
6. Turn the multiport valve handle to filter, turn on the pump and run the system. You are now in normal operation mode (filter). On the initial start up in filter mode you may experience some dust (discoloured water) returning to the pool for approximately 10-30 seconds. Don't worry it is common when running your filter for the first time.
7. Now that you have started the filter check that no sand is returning to the pool. If sand is returning to the pool turn off the filter and contact customer service as soon as possible. Sand should never return to the pool if you have attached the laterals to the centre stem and hub correctly.

TIP

After you perform your first backwash please note the running pressure on the pressure gauge after you first turn the filter on in filter mode. This running pressure is your clean filter pressure. All filter systems will have different running pressures so comparing your filter pressure to that of a friend or neighbour will give you no indication as to performance. The running pressure increases over time as the filter traps dirt and debris. This is how the filter works. To backwash the filter the clean running pressure needs to raise 50kpa above your clean running pressure. If you backwash too frequently you most certainly will not get the best performance out of your Poseidon sand filter.

EXAMPLE: CLEAN RUNNING PRESSURE IS 50kpa: PERFORM BACKWASH AT 100kpa.

MAINTENANCE

Poseidon sand filters are designed and tested to operate for many years. However it is important to maintain them in good working order.

The filter sand (or Zeo-Clor) will only require changing if it has reached the limits of its designated life. It is reasonable to expect a minimum of five (5) years on both media types.

To get the maximum life out of your chosen filtration media type whether sand (or Zeo-Clor) is as follows.

1. Backwash the filter at the required period of time, refer to your pressure gauge.
2. Refer to the specifications of the media used and follow regeneration procedures as required especially with Zeo-Clor
3. Good water chemistry is important especially if you wish to achieve long filtration life and cost savings. It is very wise to not let your pool go out of condition during the winter months as the cost of restarting your pool for the summer is much higher than if you maintained the pool during the winter period. **It is important to note that green pools shorten the filtration media life greatly.**
4. Keeping skimmer and pump baskets free of leaves, hair etc will help prolong filtration and pump life spans.
5. Replace pressure gauge if it is faulty.
6. Filter water regularly. Every day on average 8 hours depending on pool size.

TIP

If you experience trouble or jamming when turning the multiport valve it can indicate scoring or jamming with foreign matter or debris such as dirt, leaves and/or hair.

If this condition persists after rinsing, disassemble the valve to clear, refer maintenance below. If you continue to operate the system without clearing the debris it can allow water to run down the backwash line to waste

MULTI PORT VALVE OPERATION

1. **Filter-** is the normal operation mode. This is what cleans the water.
The flow of water is directed through the valve and down into the sand (or Zeo-Clor) media bed. As the water is forced through the sand (or Zeo-Clor) it is removing the dirt and other contaminants from the pool water. The water then travels up the centre stem through the lateral system as clean water going back to the pool. It's that simple and it is very effective.
2. **Backwash-**Position is for cleaning the filter sand (or Zeo-Clor). The water travels in reverse, down the centre stem out through the lateral assembly, forced up through the sand (or Zeo-Clor) and out the valve into the waste line. This cleans the filter of foreign debris such as dirt, hair and dust.
3. **Rinse-**Flushes clean the filter system.
The flow of water is directed down through the filter media bed to the lateral assembly-up the center stem and out through the waste line. This process settles the filter media bed into place and flushes any remaining foreign matter out of the filter and multiport valve.
4. **Waste-** is used to lower the pool water level after periods of heavy rain or over filling from the tap.
5. **Re-circulate-** Directs the flow of water to the swimming pool without going through the filter. Ideal when adding chemicals such as clarifiers.
6. **Closed-** Shuts off all the flow to the filter or swimming pool. **NEVER RUN PUMP IN THIS MODE.**

TROUBLE SHOOTING GUIDE

PROBLEM	POTENTIAL CAUSE	CORRECTION
Cloudy water	Insufficient filtration time or pool chemical balance	Ensure you are running the filter system for an adequate period of time. On average 8 to 10 hours per day during summer period. Check water and adjust chemical balance
Poor water flow	Dirty filter Full skimmer box Full hair and lint basket Valve shut or blocked Old sand (or Zeo-Clor) Air leaking into system	Back wash or clean filter Clean skimmer box of debris Clean hair and lint basket Ensure valves are open and turn freely Replace sand (or Zeo-Clor) check pump lid is secure.
Excessive pressure	Valve turned off or blockage in the Multiport valve. Pump too powerful for filter size.	Check that all barrel unions and pump lids are tightened Check and adjust any suction type pool cleaner
Low operating pressure	Pressure gauge faulty or pump blocked with debris	Ensure valves are opened to the correct position. Disassemble multiport valve and clean out debris. check that pump is compatible with filter size and flow Check and replace pressure gauge, disassemble pump and clear blockage

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