

# **Manual - 12'' Sand Filter/ Pump Combo Unit.**

## **SAFETY INFORMATION**

1. The sand filters are designed to work with water at temperature >than 0°C and <than 45°C. The filter should never be operated outside of these temperatures or damage may occur.
2. The installation should be carried out in accordance to the safety instructions of swimming pools and the specific instructions for each facility
3. The user should make sure that the installation is carried out by qualified authorized persons and that these persons have first carefully read the following instructions. Incorrectly installed equipment may fail, causing severe injury 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 children to use this product.
6. Chemical spills and fumes can weaken Swimming Pool/ Spa. Corrosion can cause filters and other equipment to fail, resulting in severe injury or property damage. Do not store pool chemicals near your equipment.
7. Any modification of the filter requires the prior consent from the supplier's original replacement parts and accessories authorized by the manufacturer ensure a high level of safety. The supplier assumes no liability for the damage and injuries 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

## **Sand Filtration system working principle**

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.

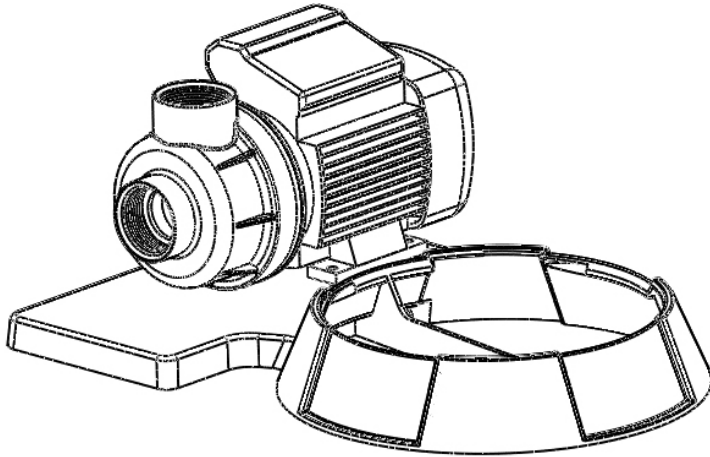
## **Preparation before installation**

1. Position the filter as close to the Swimming Pool/ Spa as possible.
2. The filter should be placed on a level concrete slab, very firm ground, or equivalent. Ensure that the ground will not subside, preventing any strain from the attached plumbing.
3. Position the filter under consideration of the piping connections, 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.

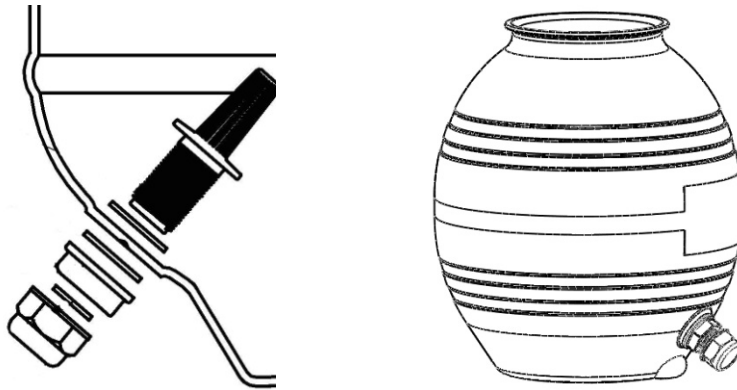
# How to install the filter tank

## INSTALLATION

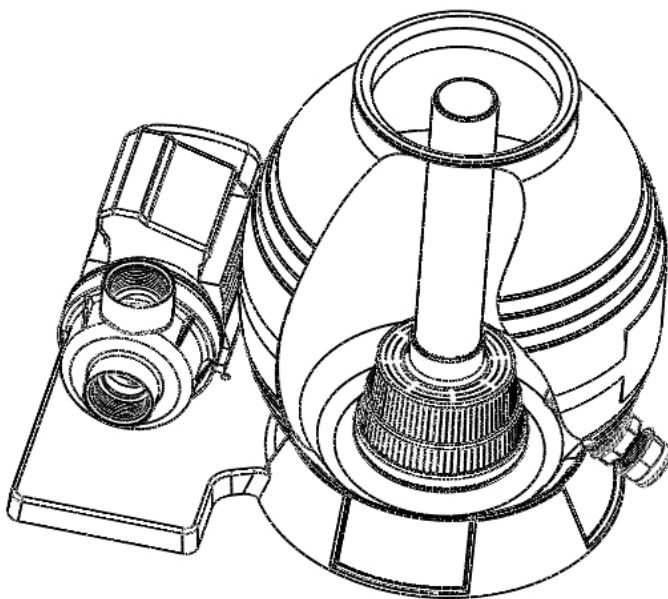
1. Mount the pump to sand filter support by using bolts and nuts.



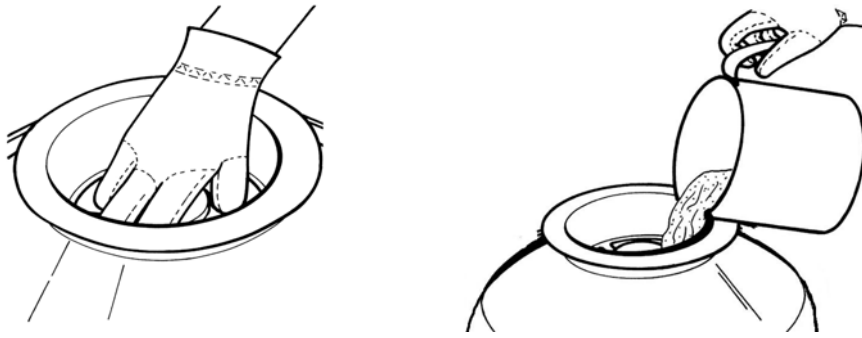
2. Install the drain plug assembly to sand tank as below pictures.



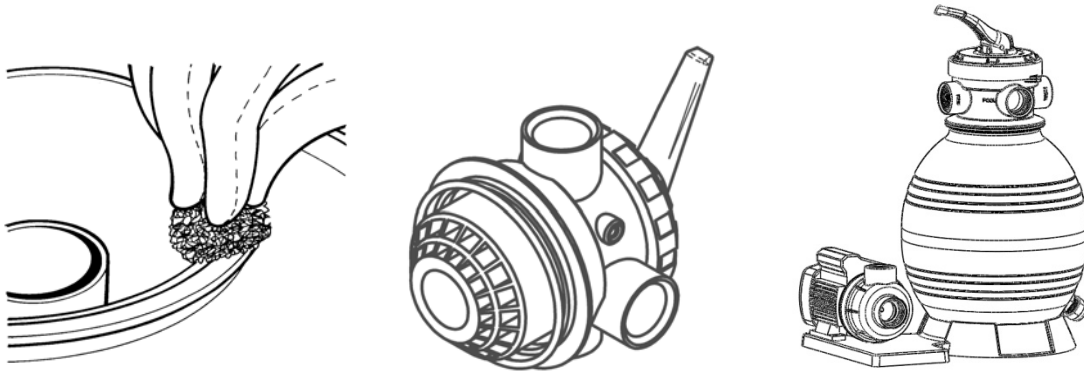
3. Press and turn the sand tank to mount it to sand filter support with correct direction (drain plug is at outside as below picture).



4. Insert the tube with the diffuser body inside the tank as above picture, then place the funnel on the tank's mouth and pour the quartz sand into the tank (sand weight 19kg).



5. Take away the funnel, and then clean really carefully the tank's neck and fix the valve with O-ring through flange clamp set. (the direction of "PUMP" port on valve needs to face pump out port).



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



#### INSTALLATION NOTES:

1. Make sure the filter is worked under the work pressure, and using a pressure control valve when the system using a booster pump.
2. If the pump position is higher than the water level, it requires installing the back water control valve (1-way control valve)..
3. If the pump position is lower than the water level, it requires installing an isolation valve. It could stop the water return back when people do the general inspection.

4. Reducing the connect adaptors and hose connecting bending as less as possible. Decreasing the water flow scrub, it could reach the maximum effective.
5. Ensure solvents are not excessively applied to fittings as this could run into O-ring and create sealing problems.
6. Do not over tighten fittings or adapters

## HOW TO USE

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

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

**MAKE SURE THE FILTER VESSEL IS FULL WITH WATER BEFORE THE START UP OF THE PUMP OR IT WILL CAUSE THE PUMP DAMAGED.**

4. Once water flow is steady out the waste line, run the pump for at least 2 minutes. The initial back-washing of the filter is recommended to remove any impurities of fine sand particles in the sand media.
5. Turn pump off and set valve to RINSE position. Start pump and operate until water in sight glass is clear----about 1/2 to 1 minute. Turn pump off, set valve to FILTER position and restart pump. Your filter is now operating in the normal filter mode, filtering particles from the pool water.

## 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 valves, 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:

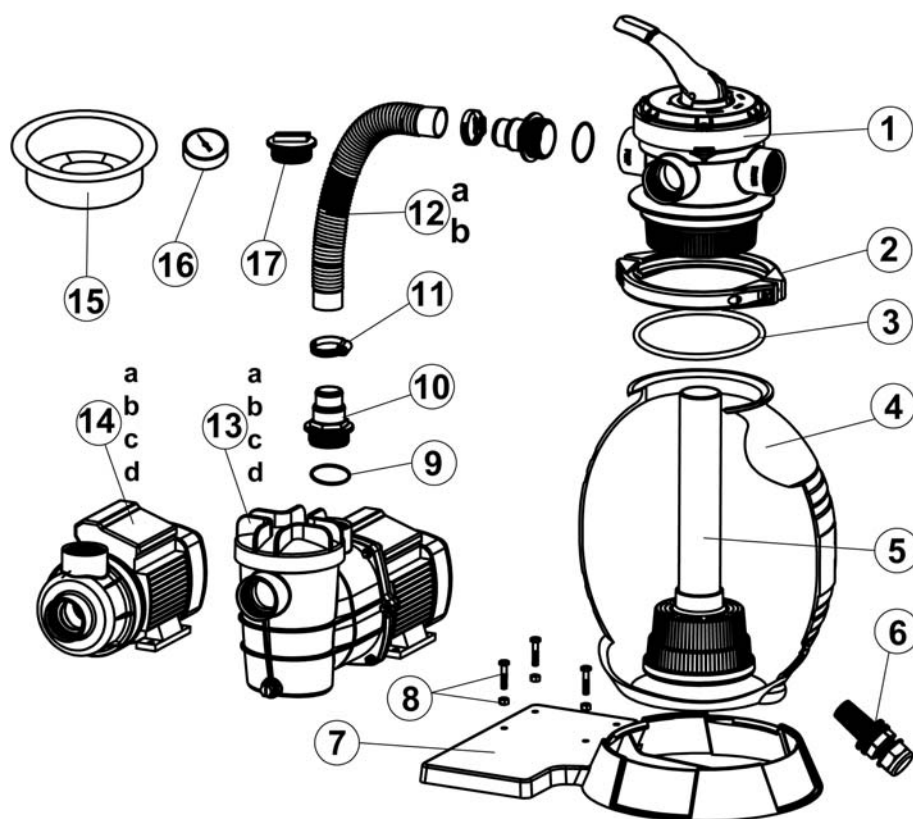
**FILTER** - Set valve to FILTER for normal filtering. Also use for regular vacuuming.

**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.

**WASTE** – To bypass filter for draining or lowering water level and for vacuuming heavy debris directly to waste.



#### Parts Listing

Ref. No.	Part No.	Description	QTY
1	647303071001	4-Way Valve	1
2	647303073	Flange clamp	1
3	65431041080	O-ring	1
4	647303013931	Filter Tank	1
5	647303074	Filter Assembly	1
6	647304073	Drain plug	1
7	647303012	sand filter support	1
8	647201273	Screw M6X25 and Nut M6	4
9	65431021080	O-ring	5
10	647303014	Hose Adaptor	5
11	65021004000	Hose Clamp	1
12a	65749014011	1 1/4" (32mm)x45cm hose for 72013/72015/72213/72215	1
12b	65749017011	1 1/4" (32mm)x35cm hose for 72012/72014/72212/72214	1
13b	2515	0.35HP Pump from 2021 (230V-50HZ)	1
15	65756006000	Neck Fitting	1
16	97302	Pressure gauge	1
17	91215	Plug W/o-ring 1 1/2" MIP	1