

**EN**

Installation and Operating Instructions

# **Sand filter pump**

Item no: 2490492

***NOTICE***

*Salt water will destroy the pump. Only use with fresh water.*

## **Delivery contents**

- Filter tank with base
- Pump
- Top valve
- Funnel
- Tube with filter basket
- 5x hose adapter
- O-ring
- Flange clamp set
- 2x Nuts
- 2x Screws
- Hose
- 5x Hose clamp
- Thread seal tape
- Pressure gauge
- Hex wrench
- Operating instructions

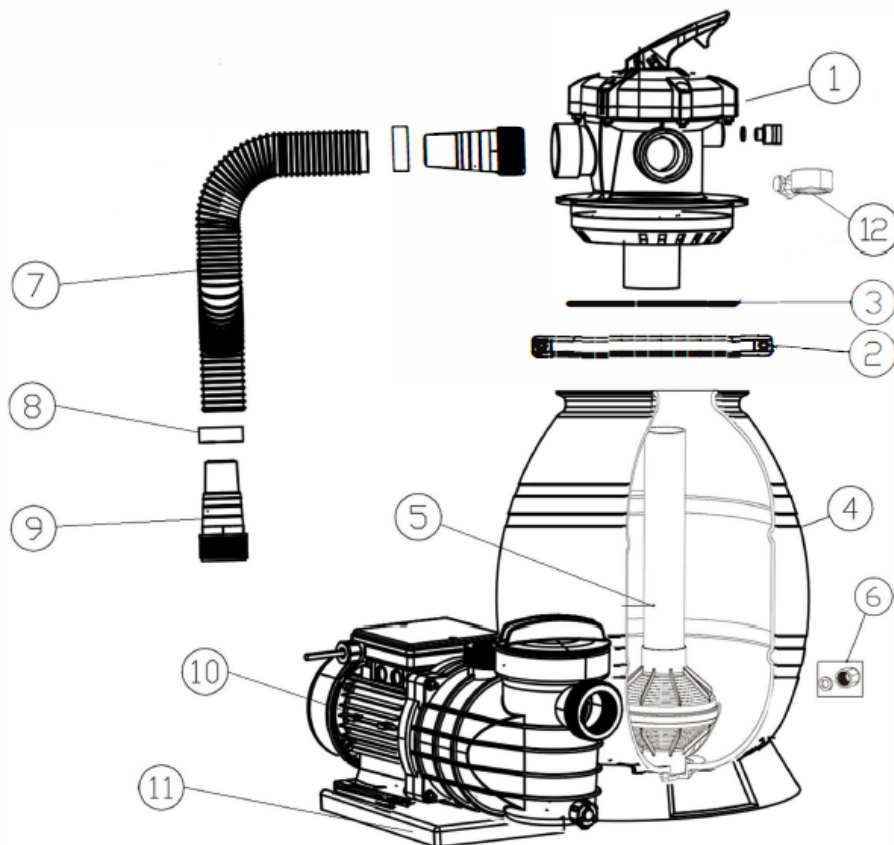
## **Safety information**

- The installation should be carried out in accordance with the safety instructions of swimming pools and the specific instructions for each facility.
- 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 can fail, causing severe injury or property damage.
- The operating safety of the filter pump is only guaranteed if the installation and operation instructions are correctly followed.
- To reduce the risk of injury, do not permit children to use this product.
- Chemical spills and fumes can weaken swimming pool equipment. Corrosion can cause filters and other equipment to fail, resulting in severe injury or property damage. Do not store pool chemicals near your equipment.
- Only use original spare parts.

## **How sand filtering works**

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.

## Product overview



	Description
1	Top valve
2	Clamp assembly
3	O-ring
4	Sand tank
5	Diffusor assembly
6	Drain plug
7	Hose
8	Hose clamp
9	Hose adaptor
10	Pump
11	Sand filter support
12	Gauge (The pressure gauge can take the place of the choke plug)

## Filter control (valve functions)

Position	Function
<b>FILTER</b>	Use for: <ul style="list-style-type: none"><li>• normal filtering</li><li>• vacuuming</li></ul>
<b>BACKWASH</b>	Use for: <ul style="list-style-type: none"><li>• cleaning the filter</li></ul>
<b>RINSE</b>	Use for: <ul style="list-style-type: none"><li>• rinsing after cleaning the filter</li></ul>
<b>WASTE</b>	Use for: <ul style="list-style-type: none"><li>• draining water</li><li>• lowering water level</li><li>• for vacuuming debris</li></ul> Water will bypass the filter.

## Installation

### System requirements

- If you use a booster pump, install a pressure control valve to keep the system pressure at **max. 0.3 bar**.

### Location requirements

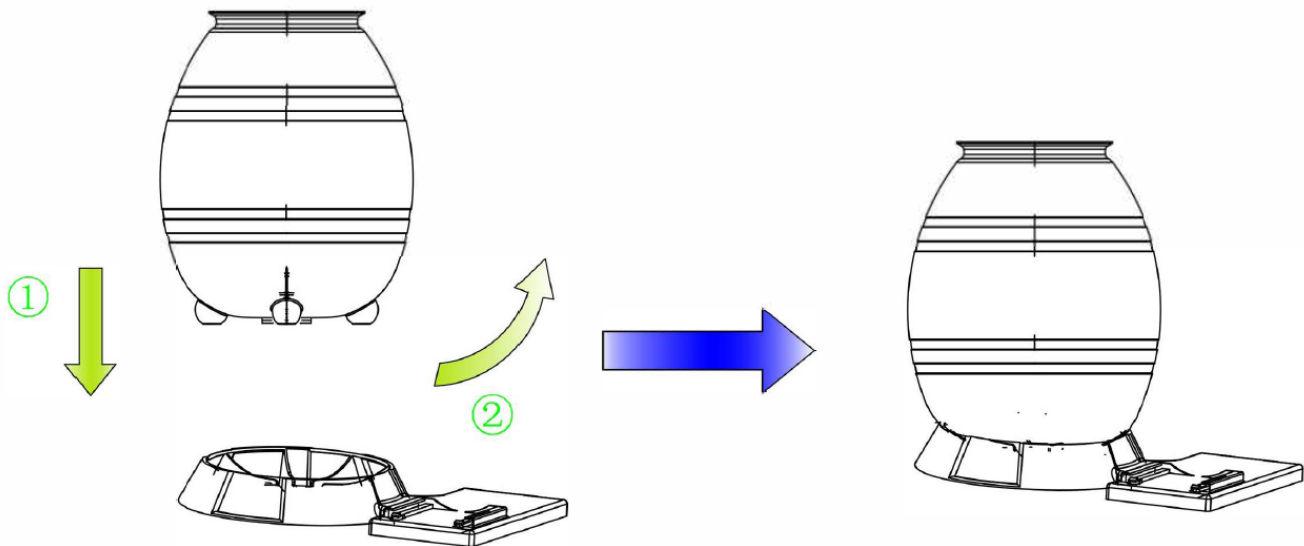
- The maximum discharge head is 8 m.
- If the pump position is higher than the water level, install a back water valve.
- If the pump position is lower than the water level, install an isolation valve.
- The filter should be placed on a level concrete slab, very firm ground, or equivalent to prevent strain on the plumbing and product damage.

## Installing

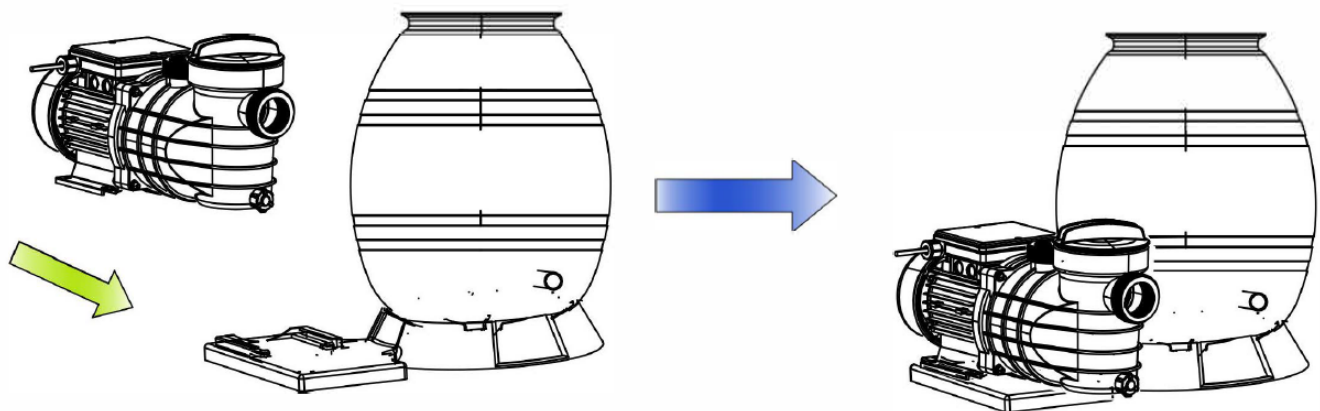
### Important:

- Keep pipe reductions and bends to a minimum to minimize flow obstruction.
- Ensure solvents are not excessively applied to fittings as this could run into the O-ring and create sealing problems.
- Do not over tighten fittings or adapters to prevent damage.

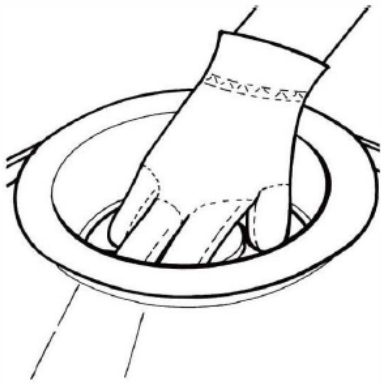
1. Put the tank into its base. Refer to the below illustration.



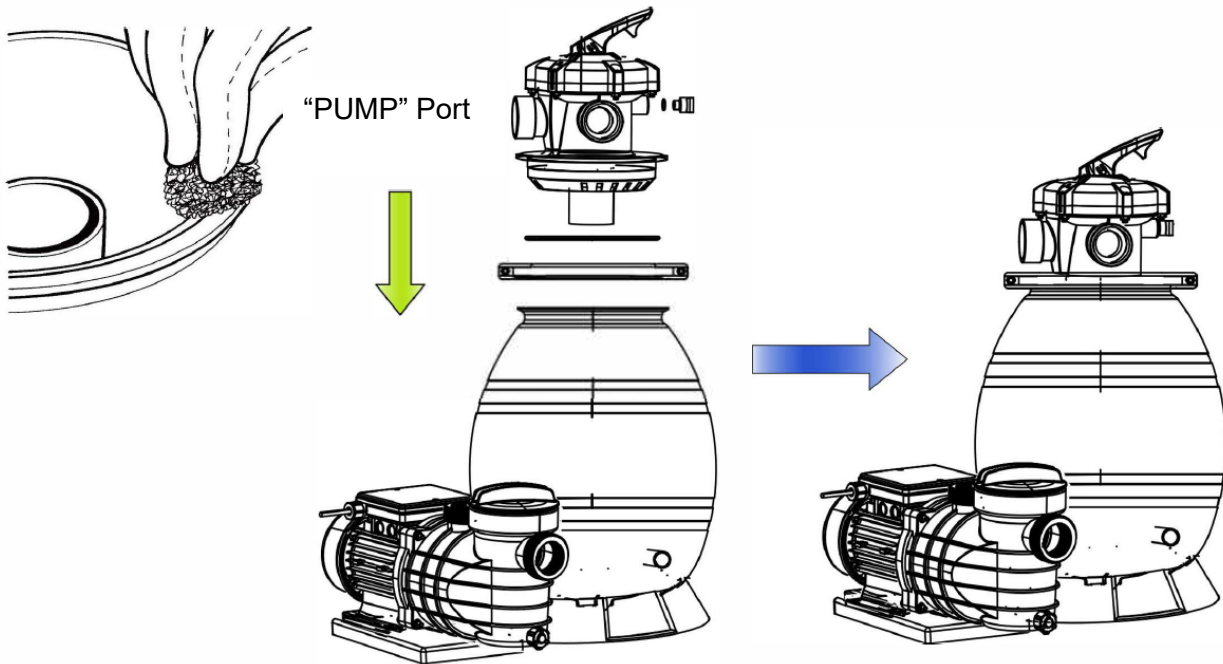
2. Install the pump on the filter support. Refer to the below illustration.



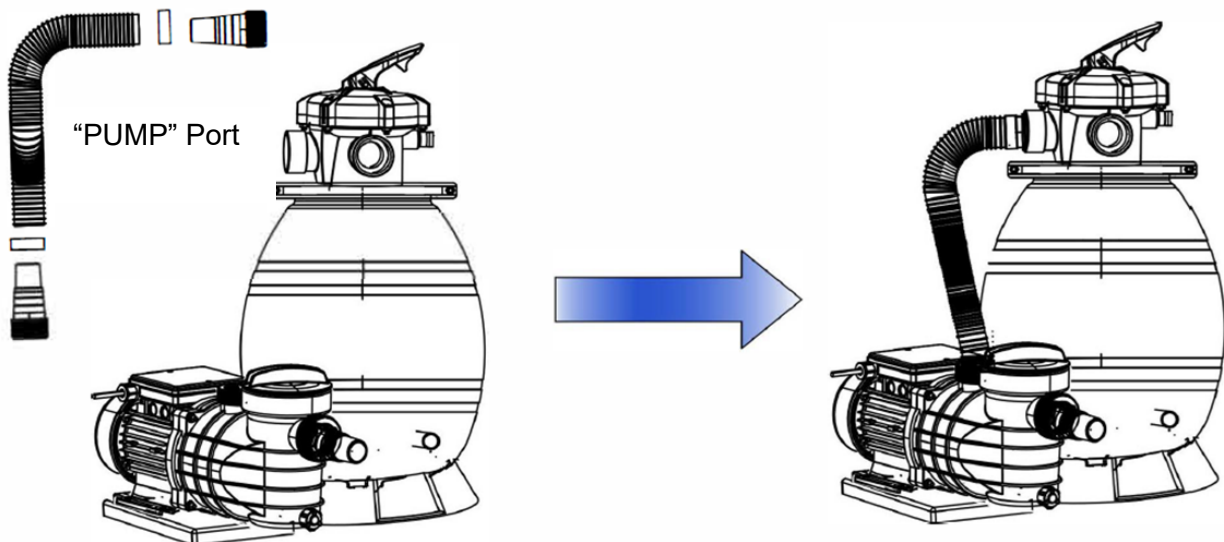
3. Insert the tube with the diffuser body inside the tank, then place the funnel on the tank's mouth and pour the quartz sand into the tank (sand weight 19 kg). Refer to the below illustration.



4. Remove the funnel, and then carefully clean the tank's neck and fix the valve with the O-ring with the flange clamp set. **Important: make sure the "PUMP" port on the valve faces the out port on the pump.** Refer to the below illustration.



5. Connect the sand tank to the pump using the hose, hose clamps and hose adaptors. Refer to the below illustration.



6. Check that all the connections are correct and secured.

## Operation

### Important:

- Always stop the pump before changing the valve position to prevent strain on the system.
- All suction and discharge valves must be open when starting the system. Failure to do so could cause severe personal injury.
- Make sure the filter is filled with water before starting the pump to prevent damage to the pump.
- Keep the **water temperature between +1 and 50 °C**. The filter pump must not be operated outside this temperature range.

1. Push down the valve handle and rotate it to the **BACKWASH** position.
2. Connect the mains plug to a suitable mains socket.
3. Prime and start the pump. As soon as water flows steadily from the waste line, run the pump for at least an additional 2 minutes to remove any impurities.
4. Stop the pump.
5. Set the valve to **RINSE**.
6. Start the pump.
7. Stop the pump if the water in the sight glass is clear (approx. 1/2 to 1 minute).
8. Set the valve to **FILTER**.
9. Start the pump. The filter pump is now operating in the normal filter mode.
10. Note down the initial pressure gauge reading when the filter is clean. It will serve as a reference for you to understand when to clean the filter.

## Cleaning the system

### When to clean the filter

Because the filter removes dirt and impurities from the water, the accumulation in the filter will cause the pressure to rise and flow to diminish.

If the pressure gauge reading is **0.55 - 0.69 bar (8-10 PSI)** higher than the pressure you noted down after starting the pump with a clean filter, clean the filter (backwash).

### Cleaning the filter

1. Stop the pump.
2. Set the valve to **BACKWASH**.
3. Start the pump.
4. Stop the pump if the water in the sight glass is clear.
5. Set the valve to **RINSE**.
6. Start the pump and run it for 1 minute.
7. Stop the pump.
8. Set the valve to **FILTER**.

The filter is cleaned and ready normal operation again.

### Cleaning baskets

To ensure proper operation and prevent damage, clean the pump strainer and skimmer baskets regularly.

## Decommissioning

Before outside temperatures reach 0 °C, drain the water from the filter pump to prevent damage. Ideally, store the filter pump in a dry indoor area with a room temperature above 0 °C.



## Troubleshooting

Problem	Cause	Solution
The filter leaks through the hose terminals.	Improper connection between the terminals and the hoses.	Seal connections with sealing tape. Insert the hose terminals up until the bottom of the housing and tighten the clamps.
After the filter has started up, there is no flow in the feedback nozzle.	The valve is not on the <b>FILTER</b> setting.	Operate the filter on the <b>FILTER</b> setting.
	The suction cover or the skimmer plug have been inserted.	Remove the suction cover or the skimmer plug.
Intermittent operation	Low water level on skimmer	Fill the pool and prime the filter.
	The filter is not primed.	Prime the filter.
The flow rate of the filter is low.	The filter is dirty.	Clean the filter (backwash).
	The filter is not primed.	Prime the filter.
Water comes out through the filter opening.	The connection between the valve and the filter is dirty.	Clean the sand from the opening. Insert the coupling on the valve properly and tighten the metal band firmly.
	Metal band is loose.	
The filter valve leaks through the drain terminal.	Inner coupling damaged due to improper use of chemical product.	Change the top valve cover. Do not put chemical products in the preliminary filtration skimmer basket.
	Valve head broken due to improper use	Change the valve head. Do not over tighten.
The motor will not start up.	No power supply	Check power supply.

## Technical data

Operating voltage	220 - 240 V/AC, 50 Hz
Power consumption	max. 250 W
Ingress protection (Pump)	IPX5
Sand quantity	19 kg
Flow rate	4000 L/h
Pumping head (Discharge head)	max. 8 m
System pressure	max. 0.3 bar (normal operation)
Water temperature	min. +1 °C / max. +50 °C
Suitable pool size	max. 24 m <sup>3</sup>
Operating temperature	+1 to +43 °C
Storage temperature	+1 to +43 °C
Weight	10 kg
Dimensions (L x W x H)	475 x 530 x 610 mm