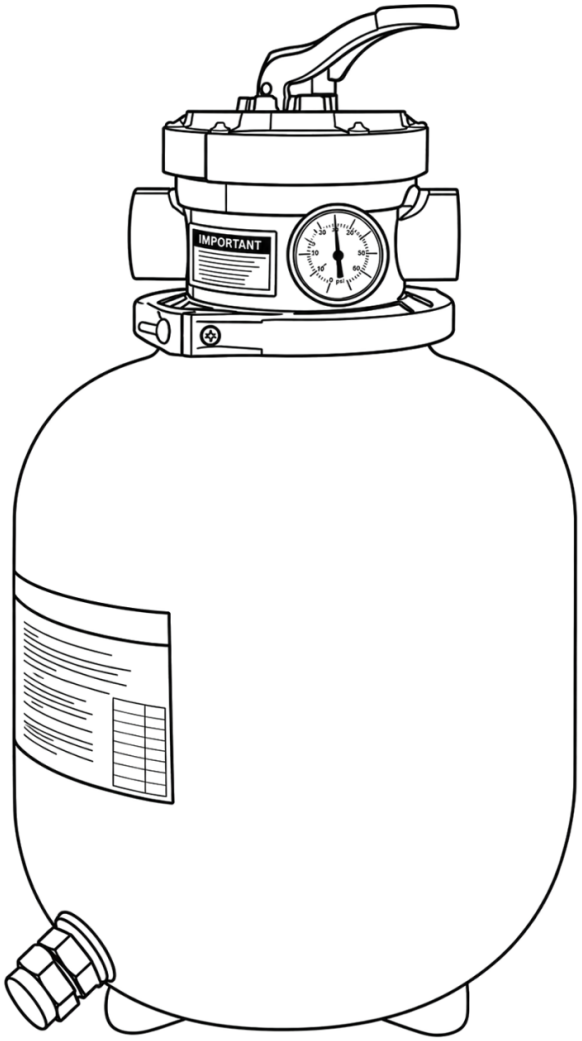
CRYSTAL
BATHROOM · SPA · LIVING

Sand Filter

English instruction manual



SAND FILTER

1 General Information

Thank you for purchasing our product. Before starting to use it, please carefully read the following instructions. The diagrams and illustrations included in this manual are simplified and contain only the details necessary for the correct use of the product. WARNING: Failure to follow the recommendations in this manual may be grounds for rejecting a warranty claim.

Recommendations

1. Entrust the installation and maintenance of the filter exclusively to a qualified technician.

2. Operate the filter only with water at a temperature above 0°C and below 45°C.

3. Always switch off the pump before changing the position of the multiport valve. Changing the valve position while the pump is running may damage the valve.

4. Children may use the equipment only under constant adult supervision.

5. Do not store pool chemicals near the filter.

6. Place the filter close to the pool, on a level, hard surface, in a dry and easily accessible location.

7. Do not move the filter while it is operating or flood its housing with water.

8. Use only silicone grease to lubricate O-rings.

9. Check the pressure gauge regularly. When the pressure rises by 50 kPa (7.2 psi) above the initial pressure, perform a backwash.

10. Perform a backwash at least once a month, even if the pressure has not increased.

11. After each backwash, always run the Rinse cycle for 10-15 seconds.

12. Maintain the following water parameters: pH 6.8-7.2, alkalinity 80-150 ppm, and calcium hardness 150-300 ppm.

13. Clean the pump strainer and skimmer basket regularly.

14. Do not exceed the maximum operating pressure specified in the technical specifications.

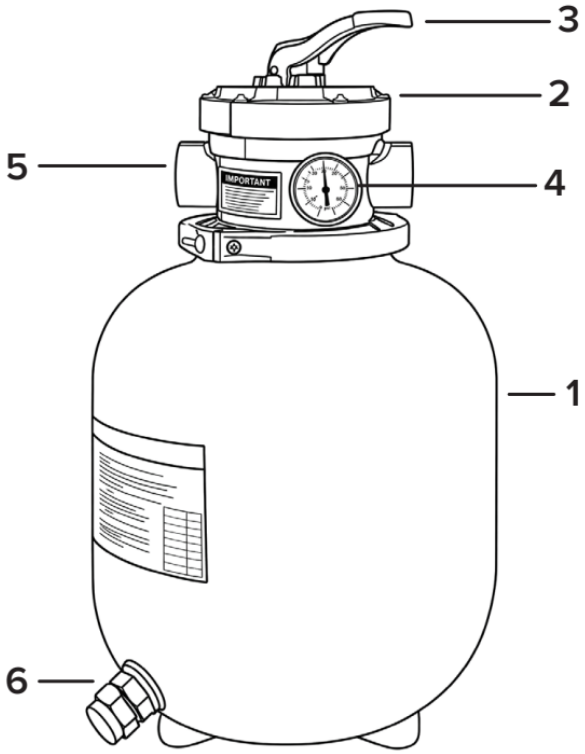
15. Do not modify the filter without the manufacturer’s approval or use non-original parts.

16. Do not switch on the pump when the suction or discharge valves are closed.

17. Do not overfill the filter with filter media.

18. In the event of a malfunction or abnormal operation, switch off the equipment immediately and contact the service department.

2 Product Description



1. Filter tank - a beige, spherical plastic body containing the filter medium (sand).
2. Multiport valve - a black valve located on top of the tank, used to select different operating modes.
3. Valve handle - a black lever on top of the valve used to change its position.
4. Pressure gauge - a round pressure indicator mounted on the front of the valve.
5. Connection ports - black inlet/outlet connections located on the sides of the valve for connecting pipes.
6. Drain plug - a black component located at the bottom of the tank, used to drain the water.

Operating principle

Water from the pool is directed through the multiport valve to the upper section of the filter bed. As it flows through the sand, contaminants are trapped in the filter medium. The filtered water flows to the bottom of the tank and then returns to the pool through the multiport valve.

3 Installation

Tank installation

• Place the filter as close to the pool as possible, on a level and solid surface, preferably a concrete slab.

• The installation area must be dry, well drained and easily accessible for operation, servicing and winterization.

• Position the filter so that the label faces forward.

• Make sure the tank is stable and will not move during operation.

Filling with filter media

1. Before filling, visually inspect the condition of the tank, valve and central pipe with diffusers.

2. Partially fill the tank with water to cushion the impact of the sand.

3. Cover the opening of the central pipe using the supplied centering device or a temporary cover to prevent sand from entering it.

4. Pour in the recommended amount of filter sand.

5. Remove the cover or centering device.

6. Clean the threads, lubricate the O-ring with silicone grease and install the multiport valve or cover.

Hydraulic connection and multiport valve

• Connect the pipes to the appropriate valve ports: inlet, outlet and drain.

• Use the shortest possible pipe sections and as few elbows as possible.

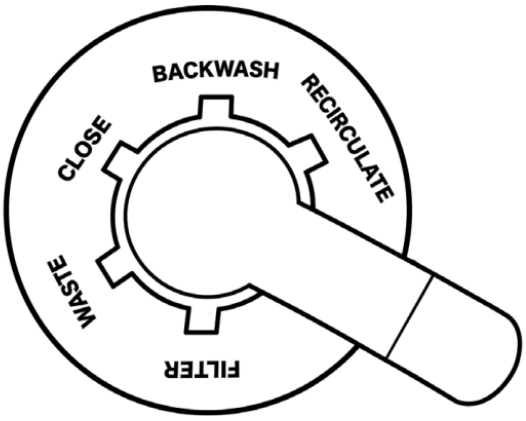
• Use sealants and PTFE tape suitable for plastic components.

• Tighten the connections with moderate force. Do not overtighten.

• If the filter is installed below the pool water level, install shut-off valves upstream and downstream of the filter.

• After connection, check all joints for leaks.

4 Filter Operation



Valve Position Description (4- and 6-Way Valve)

Position	Operating description	Notes
FILTER	Normal filtration - water flows through the sand bed and returns to the pool.	Standard operating position
BACKWASH	Backwashing - water flows from the bottom upwards, flushing contaminants into the drain.	Filter cleaning
RINSE	Rinsing after backwashing - settles the sand and removes any remaining contaminants.	Always use after BACKWASH
WASTE	Bypasses the filter and sends water directly to the drain, e.g. when draining the pool or vacuuming debris.	Only available on 6-way valves
RECIRCULATE	Recirculation - water bypasses the filter and returns directly to the pool.	Only available on 6-way valves
CLOSE	Closes all water flow paths.	Only available on 6-way valves. Do not use while the pump is running.

5 Start-up and Backwashing

Initial start-up

1. Ensure that the tank contains the correct amount of sand and that all connections are leak-tight.
2. Set the valve to the BACKWASH position.
3. Switch on the pump and allow it to run for at least 1 minute to flush out fine sand particles.
4. Switch off the pump, set the valve to the RINSE position, and run the pump for 10-15 seconds.
5. Switch off the pump, set the valve to the FILTER position, and restart the pump.
6. Adjust the pool valves to achieve the desired water flow.
7. Record the pressure shown on the pressure gauge. This will serve as a reference value for future backwashing.

When to Perform Backwashing

• When the pressure gauge reading increases by 50 kPa (0.5 bar / 7.2 psi) above the initial pressure.

• When the water flow noticeably decreases.

• When the filtration quality is insufficient.

• As a preventive measure, at least once a month.

Backwashing Procedure

1. Switch off the pump.
2. Release the pressure from the filter by opening the air-release/pressure-relief valve until the pressure gauge reads 0.
3. Set the valve to the BACKWASH position.
4. Switch on the pump and backwash until the water in the sight glass is clear.
5. Switch off the pump.
6. Set the valve to the RINSE position and switch on the pump for 10-15 seconds.
7. Switch off the pump.
8. Set the valve to the FILTER position and switch on the pump. The filter will resume normal operation.

6 Technical Specifications

MODEL	Q [GPM]	Q [m^3/h]	P [PSI]	P [BAR]	A [ft^2]	A [m^2]	d [mm/in]	m [lb]	m [kg]
73031	20	4,5	50	3,5	0,53	0,05	0,45-0,56mm (0,018-0,022in)	3	13,6
73031	35	7			0,76	0,07		45	20,4
73038	30	7,9			1,16	0,107		80	36
73035	35	7			1,04	0,1		60	27
73040	40	7,9			1,25	0,12		100	45
73047	40	9			1,8	0,16		110	50
73050	45	9			2	0,19		175	75
73054	45	10			2,69	0,25		285	130
73057	45	10			2,74	0,255		285	130
73060	49	11			2,8	0,26		300	135
73041	35	7,9			1,25	0,12		100	45
73051	40	9			2	0,19		175	75
73061	49	11			2,8	0,26		300	135
73045	40	9			1,8	0,16		110	50
73055	45	10			2,5	0,23		220	100
73065	53	12			3,6	0,34		350	160
73030	26	6			0,78	0,07		42	19
73046	40	9			1,8	0,16		110	50
73056	45	10			2,5	0,23		220	100
73066	53	12			3,6	0,34		350	160
73080	98	22,2			4,9	0,45		500	227
73090	130	29,5			6,5	0,6		700	317

Legend

Q - flow rate

P - maximum working pressure

A - filtration area

d - filter medium particle size

m - mass of filter medium

GPM - US gallons per minute

psi - pounds per square inch

ft² - square feet

in - inches

7 Troubleshooting

1. The multiport valve is difficult to turn

• Possible cause: dirt or a damaged gasket.

• Solution: flush the valve. If the problem persists, disassemble and clean it.

2. Sand is returning to the pool

• Too much filter media in the filter.

• Water flow rate is too high.

• Incorrect sand grain size or poor-quality sand.

• Damaged central pipe or filter laterals.

3. Dirty water is returning to the pool

• Filtration time is too short.

• The water is heavily contaminated.

• The filter requires backwashing.

• Water flow rate is too low.

• Incorrect water parameters (pH, chlorine level, etc.).

• Compacted or contaminated filter media.

4. Low flow rate / high pressure

• The filter requires backwashing.

• The pump strainer basket or skimmer basket is clogged.

• Excessive resistance in the system (pipes are too long or there are too many elbows).