



# Sand Filter for Swimming Pools Installation Manual



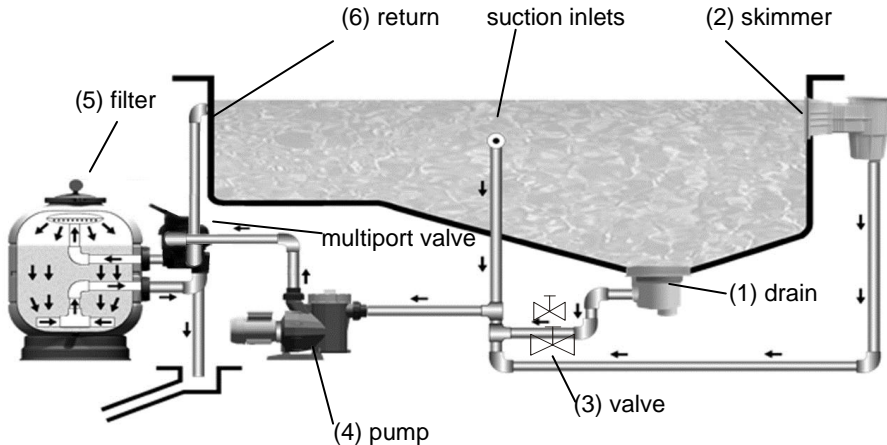
## FILTRATION

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It is essential that the filtration is accompanied by chemical treatment of the pool water. The two processes are complimentary to each other.

## WORKING PRINCIPLES

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Water is taken from the main drain(s) (1) on the bottom of the pool and the skimmers (2) at the pool surface and fed via separate pipe work with their corresponding valves (3), through the pump (4) to the sand filter (5).

After filtration, the water is returned to the pool via return inlets (6).

Once in the filter, the water is forced downwards through silica sand and suspended particles are retained.

The filter sand needs to be washed at intervals to remove the particles it has retained.

This is achieved by reversing the flow through the filter and directing the water containing the dislodged particles to drain. This process is known as backwashing.

When the filter pressure reaches over 1.3 kg/cm<sup>2</sup> the sand filter needs to be backwashed.

## INSTALLATION

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The filter should be installed as close as possible to the swimming pool and preferably at a level of 0.5 metres below the surface of the water in the swimming pool. Make sure there is drainage available at the place where the filter is to be installed.

**IMPORTANT:** It is essential to use ABS pipe, fittings and TEFLON tape when connecting the multiport valve. Pipe fixings are available threaded in 1½" and 2".

Always leave enough space around the filter in order to perform the necessary inspection and maintenance during the filter's life.

## ASSEMBLY

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Follow these indications for a correct assembly of the filter:

1. Place the filter in its final location. This must be horizontal, firm and clean.
2. Perform the three connections to the multiport valve. Each of these three outlets is clearly identified on the valve.
3. Fix the lid seal, the pressure gauge and the air bleed (see view). It is not necessary to use teflon tape, as a watertight joint is guaranteed. Do not tighten the pressure gauge with a tool, as manual tightening will be sufficient.



## SAND LOAD

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In order to obtain maximum efficiency from your filter, it should be filled with swimming pool silica sand with a grain size of 16/32 inches. With the quantity indicated on the plate specifying the characteristics, proceed as follows:

1. Take off the lid.
2. Fill the filter with water to half capacity. THIS IS VERY IMPORTANT BEFORE ADDING ANY SAND.
3. Pour the required quantity of sand inside the filter.
4. Clean the seating of the lid joint.
5. Fix the filter lid in place.

## FILTRATION PROCESS

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The multiport valve has a handle with 6 positions that selects any of the necessary operations to obtain the maximum efficiency from the filter.

**IMPORTANT:** Always switch off the pump, **WHENEVER** changing the position of the multiport valve.

## FILTRATION

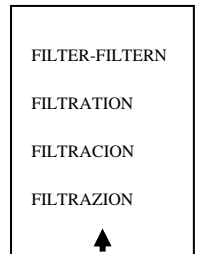
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With the pump switched off, place the handle of the multiport valve in the "FILTRATION" position.

Switch on the pump.

During this operation, it is advisable to observe the pressure gauge from time to time as this indicates the degree of saturation of the filter. When the pressure reaches 18.5 psi, a "BACKWASH" should be carried out.

The main drain and skimmer valves will be regulated according to the quantity of floating material found on the surface of the water. Bear in mind that with the main drain valve fully open there will be little suction from the skimmers. If the surface sweep of the skimmers is to be stronger, reduce the flow from the main drain.





**0.8 kg/cm<sup>2</sup> - 11.4 psi:**  
Normal pressure at the beginning of a filtering cycle.



**1.3 kg/cm<sup>2</sup> - 18.5 psi:** This pressure indicates that it is necessary to “**BACKWASH**”

## BACKWASH

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Each load of sand forms thousands of channels which pick up all the material contained and caught up in the filtering process, the number of free channels allowing the water to pass is continually decreasing. This is why the pressure rises progressively until it reaches 1.3 kg/cm<sup>2</sup>. At this pressure the filtering sand is unable to collect any more impurities and must be cleaned as follows:

Stop the pump, then turn the multiport valve to the “BACKWASH” position and with the main drain and return valves open, switch on the pump and run it for minimum two minutes or longer until sight glass is clear. When this operation is completed, the dirt blocking the filter will have been removed.



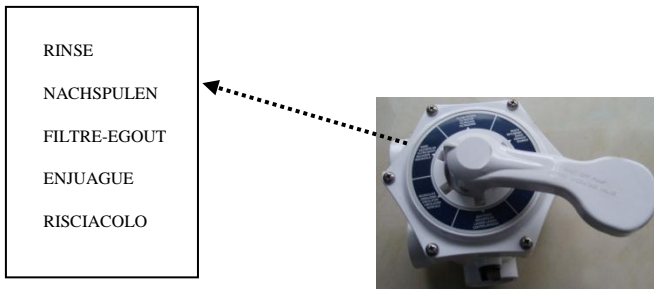
BACKWASH  
BUCKSPULEN  
LAVAGE-LAVADO  
CONTROLAVAGGIO

## RINSE

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After carrying out the "BACKWASH" operation on the filter and placing the multiport in the "FILTRATION" position, the water flowing into the swimming pool will be cloudy for a few seconds, so to prevent it from reaching the swimming pool there is a "RINSE" position for the multiport valve which is operated as follows: Immediately after the "BACKWASH" put the valve in the "RINSE" position and switch on the pump for one minute, after which the pump is switched off and the valve placed in the "FILTRATION" position.

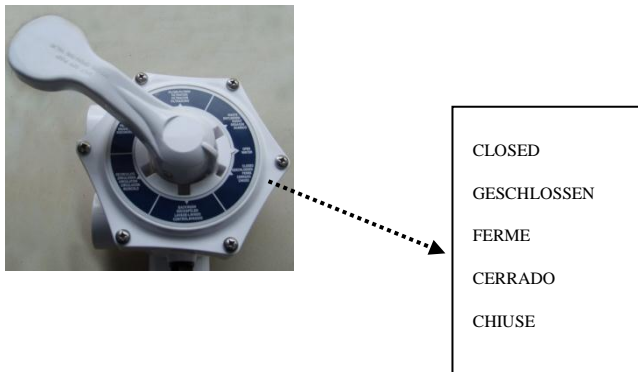
This position ensures that the filtered water goes directly to the drain.



## CLOSED

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As its name indicates, this position is for closing off the water from the filter to the pump and it is used for opening the pump strainer or prefilter lid.



## RECIRCULATE

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In this position, the multiport valve allows the water from the pump to go directly to the swimming pool without passing through the inside of the filter.

REEIRCULATE  
ZIRKULIEREN  
CIRCULATION  
CIRCULACION  
RICIRCOLO



## WASTE

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If the swimming pool needs to be drained, this can be done using the filter pump. In order to do this, the multiport valve should be in the "WASTE" position. The pump is run with the main drain valve fully open for the pump to have sufficient suction. For the pump to maintain prime, keep the prefilter and the main drain pipes full of water. Before draining, make sure that the skimmer valves are closed.



WASTE  
ENTLEEREN  
EGOUT  
DESAGUE  
SCARICO

## START-UP

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When the filter has first been filled, the sand must be washed. Proceed as follows:

1. Place the multiport valve in the "BACKWASH" position.
2. Open the valves controlling the swimming pool suction pipes and run the pump for 4 minutes.
3. Stop the pump, place the handle of the multiport valve into the "RINSE" position and rinse for 1 min. Then, stop the pump and place the handle of the multiport valve into "FILTRATION" position.

When this has been done, the filter will be ready to start the filtering cycles for the water in the swimming pool.

**IMPORTANT: The pump should be switched off whenever the position of the selector valve handle is being changed.**

## MAINTENANCE

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Do not use solvents for cleaning the filter; this could damage the filter, especially its finish.

Always replace the joints and pieces that may not be in good condition.

Backwash and rinse the filter when needed, as instructions specified in this manual.

Clean the sand every year for a better performance with solid or liquid product. It's recommended to change the sand inside the filter approximately every 3 years.

### Winter period:

In order not to damage the filter during the winter period, please follow the instructions below:

Perform a backwash and a rinse as previously detailed.

Drain the water from the filter.

Take off the lid to ventilate the filter in the period of inactivity.

When you need to start up the filter again after a period of inactivity, follow the instructions stated in the paragraph "START UP".



## The most common PROBLEMS

	POSSIBLE CAUSE	SOLUTION
The filter only provides a small volume of the filtered water. Vacuum heads have poor suction.	Prefilter blocked.	Clean filter.
	Motor turning the wrong way.	Check by the arrow on the body of the prefilter which way the motor is turning, if this is not correct, reverse the motor connections.
	Suction pipes are blocked.	Proceed to clean.
The pressure rises rapidly during a filter cycle.	Water pH is high (Cloudy water).	Decrease the pH with pH-MINUS.
	Lack of chlorine (Greenish coloured water).	Add chlorine.
The pressure gauge varies considerably.	The pump is taking in air.	Check for leaks in the prefilter and suction pipes.
	Suction is half closed.	Check that the suction valves are completely open.

## SAFETY WARNINGS

Never start up the system without water.

Whenever you operate the filter or the multiport valve, switch off the pump first.

Never allow children or adults to sit on the system.

Do not connect the filter directly to the mains water supply, as the pressure of the water may be too high and exceed the maximum work pressure allowed by the filter.

Do not clean the lid with solvents, as it may damage the finish and transparency.

As all the connections are made with 'O' rings, it is not necessary to tighten the nuts excessively.