

SAMOA FILTRATION SYSTEM

INSTALLATION MANUAL



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INSTRUCTIONS FILTRE MONOBLOC

Read manual carefully and keep it in a safe place for future reference.

This manual covers the filtration group which is described (name and reference) in the attached document "TECHNICAL CHARACTERISTICS".

- All electrical installations should comply with the following standard:

European Low Voltage Directive 2006/95/CE,

EN 60335-2-41, safety of household or similar electrical appliances, particular requirements for pumps.

As such with all rules pertaining to "to the construction of electrical installations within specific confines: swimming pools and fountains", or the equivalent standard in force in each region or country.

- The electrical installation should be done by someone qualified in working with electrical equipment. This equipment is not designed for those with physical, sensory or mental handicap or people lacking in experience, unless done under supervision or with instructions of use from a person in charge of safety.
- The height of the sand should not exceed 2/3 of the height of the tank.
- It is important to check that the suction ports are not blocked.
- Check regularly the filter level of dirtiness.
- The equipment must not be switched on while the pool is being used.
- Do not operate the equipment unless it is properly primed.
- NEVER touch the filter when it is operating if you are wet or have wet hands.
- When handling the filter or valve, DISCONNECT the power supply.
- Make sure that the ground is dry before touching the electrical equipment.
- Do not submerge the equipment or put it in a place where it could be submerged.
- Do not permit children nor adults to sit or lean on the equipment. Children should be supervised to ensure that they do not play with the equipment.
- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.
- It is essential that any damaged element or set of elements is changed as soon as possible. Only use parts that are approved by the sales representative.
- The equipment should be connected to a power supply (see data on the pump's plate), with earth connection, protected by a residual current device (RCD) having a rated residual operating current not exceeding 30 mA. or by an insulating transformer.
- Forbid access to the pool if any damage of the filtration system(s) occurs.
- Where chemical products are used to treat the pool water, it is recommended that a minimum filtration time is respected in order to protect bathers' health, as stated by the health regulations.

1 PACKING COMPONENTS

The equipment which you have just purchased is a special apparatus conceived and designed especially for above ground swimming pools. As a result of its innovative design and high level of functionality, it provides you with the different components required to filter water: filter, pump and selector valve in a single unit. The main components of this filter are as follows:

FIG.	POS.	NAME
1	1A	4 functions valve
1	1B	5 functions valve
1	1C	6 functions valve
1	2	Filter
1	3	Monobloc base
1	4	Conection hose valve-pump
1	5	Pump

Some of the equipment's accessories (silica sand, hoses, manometers...) are not included in all models of monoblocs.

REQUIREMENTS FOR CORRECT INSTALLATION

This filter is easy to install and can be assembled by one adult in about 2 hours, taking care to follow the instructions detailed in this manual correctly. Only the following tools are required to correctly handle the filter components and to install it:

TASK	TOOL	ALTERNATIVE TOOL
Tighten the hose flanges	7 mm Stecker screwdriver	Philips screwdriver
Tighten the pump screws	Open-end or socket wrench	Open-end or socket wrench 13
Cut the liner	Cutter	knife
Protection of collector pipe	Piece of plastic	Piece of fabric

2 BEFORE CONNECTING THE FILTER LOCATION

Place the filter on a flat, solid surface at a minimum distance of 3.5 meters from the pool (in accordance with standard installation regulations of electric equipment in swimming pools in force in each region or country) and at the same level as the bottom of the pool to prevent air from entering the cleansing circuit and to ensure that the filter remains primed (Fig. 2). The filter should be protected from sun and rain, and kept in a sufficiently ventilated area during operation. Never cover it during operation.

In models where pool connection hoses are supplied, these will be 4.5 metres in length. In all cases, check that this length is sufficient in order to install the apparatus on a flat, solid surface more than 3.5 metres away from the pool. If the hose length is insufficient, contact your service centre.

When hoses are not supplied with the apparatus, hoses with a minimum length of 4.5 metres should be used which allow the filtering equipment to be placed on a flat, solid surface more than 3.5 metres away from the pool. This hose set is available as an optional kit from your vendor.

It is important to check that the suction ports are not blocked.

During the installation process, if in doubt, contact the vendor of the equipment

ASSEMBLY

Once the filter is set in place, proceed as follows:

- Fix the filter to the base. Depending on the monoblock filter.
- Fix the pump to the base with the screws and washers supplied (Fig. 10).
- Place the inner collector correctly on the bottom of the filter (Fig. 9).
- Cover the mouth of the collector situated on the inside of the filter with a plastic protector to make sure sand does not enter (Fig. 4).
- Put the sand inside the filter: The height of the sand should not exceed $2/3$ of the height of the tank (Fig.4).
The silica sand lasts for an unlimited period of time. It should only be replaced if lost. Record the reference of the level of silica sand for future replacement (Fig. 4).
- Remove the remains of sand from the filter opening and take off the protective plastic.
- Put the selector valve with its coupling and secure with the metal band or seal (Fig. 3).
- Firmly tighten the screw on the metal band which joins the valve to the filter (Fig. 3).
- Connect the (PUMP) and (RETURN) terminals of the selector valve to the corresponding hoses, tightening them firmly with the clamps (Fig. 5).

NOTE: Check that the hoses allow the filtering equipment to be located and fixed on a flat, solid surface that is more than 3.5 metres from the pool.

- Connect the other end of the suction hose to the skimmer tightening firmly with a clamp. Repeat the same procedure with the return nozzle terminal and connect the discharge hose.
- Following installation, the first cycle of filter backwash should be performed. In order to do so, follow the instructions in section 5.3.
- It is important to check that the suction ports are not blocked.

3 ELECTRICAL CONNECTION

All electrical installations should comply with the following standard:

European Low Voltage Directive 2006/95/CE,

EN 60335-2-41, safety of household or similar electrical appliances, particular requirements for pumps.

As such with all rules pertaining to “to the construction of electrical installations within specific confines: swimming pools and fountains”, or the equivalent standard in force in each region or country.

The equipment should be connected to a voltage (see data on the pump’s plate) power supply, with earth connection, protected by a residual current device (RCD) having a rated residual operating current not exceeding 30 mA. (Not supplied; available for purchase in electrical shops). or by an insulating transformer.

4 TOP SELECTOR VALVE VALVE TYPES AND FUNCTIONING

A- 4 function valve: The top selector valve on the filter is used to select the 4 different filter functions: filtration (filter), backwash, waste and closed.

B- 5 function valve: The top selector valve on the filter is used to select the 5 different filter functions: filter, backwash, rinse, waste and closed.

C- 6 function valve: The top selector valve on the filter is used to select the 6 different filter functions: filter, backwash, recirculate, rinse, waste and closed.

To vary the position of the 4 function valve, proceed as follows: (Fig. 6)

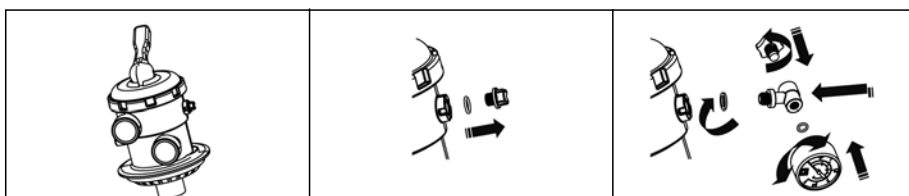
- Disconnect the equipment from the mains.
- Loosen the upper triangular knob on the valve by turning it until you can lift the cover of the housing and turn it.
- Turn the cover until the desired setting is aligned with the discharge hose, where the anchorage is, and the rib is inserted in its housing.
- Re-tighten the knob by turning it, but be careful not to over-tighten so as not to damage the internal components of the valve.

To vary the position of the 5 function valve / 6 function valve, proceed as follows: (Fig. 7)

- Disconnect the equipment from the current.
- Firmly press the upper selector valve, displacing the front rib, until you can turn it.
- Turn the control gently until the front rib is in line with the desired operation.
- Slowly release the control, making sure that the front rib is sitting firmly in its place

ASSEMBLING THE PRESSURE GAUGE

WITHOUT PRESSURE GAUGE



5 OPERATION

The operation of this filter is based on the filtration capacity of the silica sand which is inside. The water in the pool is driven by the filter pump and forced to pass through the silica sand. The sand acts as a filtering element which retains the impurities in the water. The environment, trees, pollen, insects and frequency of bathing, amongst other factors, determine the dirtiness of the water in the pool. Depending on these factors, the silica sand in the filter should be cleaned with greater or less frequency (see section 5.3). Check regularly the filter level of dirtiness.

To keep the pool water in good condition, use the chemical products recommended by the manufacturer (chlorine, alga protection, flocculants, etc.).

CHEMICAL PRODUCTS SHOULD NEVER BE PLACED IN THE BASKET OR THROUGH THE FILTER, AS THIS WOULD DETERIORATE THE MATERIALS OF THE UNIT AND LIMIT ITS EFFICACY.

Where chemical products are used to treat the pool water, it is recommended that a minimum filtration time is respected in order to protect bathers' health, as stated by the health regulations.

5.1 PRIMING THE FILTER

The filter must be correctly primed at all times. If the filter is not primed it means that an air chamber has been created inside which causes defective circulation of water. This prevents proper filtration of the water by the silica sand and is detrimental to the motor.

The filter may become unprimed for several reasons:

- Starting up a new unit.
- Starting up a unit after an extended period of inactivity.
- Following use of a suction bottom cleaner.
- Air absorbed by the skimmer due to the low level of water in the pool.
- Due to incorrect use of the unit, suction cover or skimmer plug.

When is the filter unprimed?

We can see that the filter is unprimed when:

- The water entering the filter sounds like it is falling freely. This indicates that an air chamber has been created between the water inlet and the silica sand.
- An excess of air bubbles is released through the return nozzle.
- The bottom cleaner (not supplied) does not operate with suction, and the silica sand remains clean after cleaning.

How can we prime the filter?

- Verify that the suction hose is connected to the skimmer and the passage is clear (the plug is not in place).
- With the valve on the filter position, slightly loosen the drain nut which is beside the pressure gauge, so as the air accumulated inside the filter can leave.
- When you see that only water is released (for 1 to 2 minutes), re-tighten the nut.

5.2 FILTRATION

NEVER HANDLE THE VALVE WHILE THE MOTOR IS RUNNING

Carry out a wash of the sand before the first filtration. (Part 5.3)

The valve should be in the filter position (FILTER). The service life of the filter will be longer if the periods of continuous operation do not exceed 4 hours. The need for daily filtration is determined by the volume of water in your pool in m³ in relation to the m³/h filter flow rate for a water temperature of approximately 21°C and placed 3.5 m from the pool. Leave the motor at a standstill for at least 2 h between each 4 h period of operation.

Pool volume in m³
Filter flow rate in m³/h = Hours required

Example: $\frac{42 \text{ m}^3}{5.5 \text{ m}^3/\text{h}} = 7.63 \text{ hours}$
2 cycles of 4 hours with a break of 2 hours

In the initial filtration treatment it is important to leave the filter at a standstill for the periods indicated. It is recommended that you increase the amount of time in ratio to any temperature rise in the pool.

5.3 FILTER BACKWASH

The backwash process cleans the silica sand from inside the filter. This is achieved by reversing the direction of water circulation with the top selector valve. This process should be done regularly. For this purpose you should observe several factors which indicate the dirtiness of the sand:

- When a reduction in the return flow rate of over 30% of the system's nominal flow rate is detected.
- When the manometer indicates an excessive pressure (see the maximum working pressure given in the instruction manual included with the device).

To clean the filter, proceed as follows according to valve type:

4 function valve: (Fig. 6)

- Disconnect the filter from the mains. Never move the selector valve while the motor is running.
- Loosen the upper triangular knob on the valve until you can lift the cover and turn it (Fig.6). Place the valve on the backwash setting, reinserting the cover in its housing and re-tightening the knob by turning it. Do not over-tighten the knob so as to avoid damaging the valve.
- Connect a hose to the valve waste outlet from the valve and direct the other end of the hose to a drain or sewer.
- Run the filter for approximately 2 minutes (until impurities no longer run out with the water).
- Stop the filter and leave it to rest for 2 minutes so as to let the silica settle and stop it from running out into the pool.
- Reset the valve to the desired setting (filtration or closed) (Fig. 6) and remove the hose from the drain outlet.

For 5 and 6 function valves: (Fig. 7 and Fig.8)

- Disconnect the filter from the mains. Never move the selector valve while the motor is running.
- Firmly press the upper selector valve, displacing the front rib, until you can turn it (Fig. 7).
- Turn the control gently until the front rib is in line with the backwash operation (Fig. 7).
- Connect a hose to the valve waste outlet from the valve and direct the other end of the hose to a drain or sewer.
- Run the filter for approximately 2 minutes (until impurities no longer run out with the water). In the valve model fig.8, this can be seen through the transparent window on the side.
- Stop the equipment.
- Put the valve in the rinse position and connect the filter for a few seconds (Fig. 7).
- Stop the equipment, put it in the desired filter position (Fig. 7) and remove the hose from the waste position, if you desire.

5.4 DRAINING THE POOL

The following accessory is available to help drain the pool: Portable submersible pump AR2071.

The filter allows you to drain nearly the entire pool after the bathing season has ended. In order to do so, you should set the top selector valve on the waste setting (Fig. 6) (Fig. 7) without plugging in the filter and connect a hose to the valve waste outlet and direct the other end to the drain or sewer.

Depending on the skimmer model (see specific manual), proceed as follows:

5.4.1 With wall skimmer (for Dream Pool swimming pools):

- Remove the inner basket from the skimmer and cover the suction inlet with the plug supplied for this purpose.
- Disconnect the suction hose from the skimmer inlet. Loosen the clamp which secures the hose, supporting it so that no water leaks and it loses priming.
- Remove the hose, covering the end so it remains primed, and submerge it immediately in the pool.
- Weigh down the end of the suction hose with a heavy object which will not damage the liner so that it is forced to sink to the bottom of the pool.
- Start up the pump and drain the pool. Remember that the filter will not fully drain the pool. When a few centimetres of water are left and the pump no longer sucks in water, turn it off.

- If you are going to refill the pool with water, first manually remove the remaining water without damaging the liner.
- If you are going to disassemble the pool, you can fold the bag with the remaining water in the centre and after removing the plate, unfold the bag to empty it completely. This operation should only be done when you are disassembling the pool.

5.4.2. With self-supporting skimmer (for Magic Pool swimming pools):

Aside from the drain included within the pool, you can use the filter system to empty it:

- Raise the self-supporting skimmer until it is hanging outside the pool, to prevent water from entering the skimmer.
- Disconnect the suction hose from the skimmer inlet by the outer part of the pool wall. Loosen the clamp which secures the hose carefully so that the liner is not damaged. Hold the hose so that no water leaks and it loses priming.
- Remove the hose, covering the end so it remains primed, and submerge it immediately in the pool.
- Weigh down the end of the suction hose of the skimmer inlet with a heavy object which will not damage the liner so that it is forced to sink to the bottom of the pool.
- Start up the pump and drain the pool. Remember that the filter will not fully drain the pool. When the pump no longer sucks in water, turn it off.
- If you are going to refill the pool with water, first remove the remaining water through the drain without damaging the pool.

THE HOSE SHOULD NOT CONTINUE TO APPLY SUCTION TO THE BOTTOM OF THE POOL LINER. THE PUMP MAY BE SERIOUSLY DAMAGED IF IT OPERATES WITHOUT WATER CIRCULATION OR MAY DAMAGE THE LINER.

5.5 CLEANING THE BOTTOM OF THE POOL

To clean the bottom of the pool, you can use the unit's pump, using one of the following accessories:

- AR20637 or 08011 (a 32 mm diameter hose will be needed) for units FA6030 and FA6040.
- AR2064 (a 38 mm diameter hose will be needed) for units FA6050, FA6070, FA6080 and FA6100.
FS300, FS400 and FS500

For any enquiries on warranties or after-sales service, please contact the vendor.

A hose which extends beyond the length required to reach all points of the pool is more difficult to use. Cut off the section of the hose which is not needed. Check that the rubber terminals conserve their seal.

Priming the bottom cleaner hose:

Insert the bottom cleaner into the pool vertically, with the pole and the hose connected. Let it fill with water and keep the rest of the hose outside of the water. Continue to insert the hose in the water slowly by 50 cm sections which should be submerged at the same time as they are completely filled with water. Proceed up until the end, when the entire hose is filled with water and submerged. If the hose is not fully primed, the bottom cleaner will not perform suction and the cleansing unit may be damaged if it is forced to operate when it is empty.

Depending on the skimmer model (see specific manual), proceed as follows:

5.5.1. With wall skimmer (Dream Pool swimming pools):

- Place the suction cover accessory inside the skimmer with the inlet facing upwards, without removing the basket.
- Prime the hose.
- Pass the end of the hose through the gate of the skimmer from the INSIDE OF THE POOL, ensuring that no air gets in. Connect it to the inlet of the suction cover, pressing it at a slant to create the join. Then insert it horizontally, introducing the hose further. Pay attention not to damage the skimmer gate during this operation.
- The water level of the skimmer should be at a maximum and above the join between the cover and the hose to prevent air from entering.
- Run the pump in the FILTER position and clean the bottom of the pool.

5.5.2. With self-supporting skimmer (Magic Pool swimming pools):

- Remove the upper floating ring from the skimmer and without removing the preliminary filtration basket, place the suction cover accessory in the upper part of the skimmer with the inlet facing upwards and immerse the skimmer inside the pool sufficiently to ensure that the suction cover does not take in air.

- Prime the hose.
- Ensuring that no air enters, connect the hose to the suction cover inlet. The join between the hose and the cover should always be submerged to prevent air from entering.
- Run the pump and clean the bottom of the pool.

5.6 RINSING MODELS 5 FUNCTION VALVE / 6 FUNCTION VALVE: (FIG. 7)

Having completed a “WASH” cycle of the filter and having put the installation on “FILTER”, for a few seconds the water will be cloudy flowing into the pool. To avoid having this cloudy water running into the pool, you can use the “RINSE” setting.

This works as follows: immediately after the “WASH”, stop the pump, turn the valve to “RINSE” (fig. 7) and connect the pump again for one minute, then stop the pump and turn the valve to “FILTER”.

5.7 RECIRCULATION: MODEL 6 FUNCTION VALVE

With the valve in this position, the water goes directly from the pump to the pool, without passing through the filter (Fig. 7).

5.8 CLOSED SETTING

The “CLOSED” setting for the selector valve is used to prevent water from circulating through the hoses and the filter.

6 CABLE REPLACEMENT

If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.

7 MAINTENANCE

After the bathing season has ended, the filter should be kept in a dry place where it is protected from bad weather. For this reason, after performing a final backwash to clean the silica sand, dismantle the hoses and drain the water in the filter through the tank drain plug until it is completely empty.

After removing all of the water from the filter, carefully clean the remains of silica sand from the thread before replacing the plug. Failure to do so could damage the thread.

The filter tank drain plug should only be used in this operation.

VERY IMPORTANT:

Following an extended period of inactivity, before starting up the filter check that the filter is correctly primed.

7.1 CARE OF THE PUMP

The filter pump is designed to operate without any specific maintenance. Some consumable elements or those that are exposed to wear and tear may have a shorter life-span than the guarantee period.

For any form of maintenance, contact the manufacturer or its service centre.

TROUBLE-SHOOTING AND TECHNICAL ASSISTANCE

This filter and its instructions are especially designed for home use. There is no need for professional assistance, except in special cases. The following are some of the problems and causes which may arise over time during the life-span of the filter, and which you may be able to fix on your own. For any enquiries on warranties or after-sales service, please contact the vendor.

It is essential that any damaged element or set of elements is changed as soon as possible. Only use parts that are approved by the sales representative.

Forbid access to the pool if any damage of the filtration system(s) occurs.

When handling the filter or valve, DISCONNECT the power supply.

PROBLEM	CAUSE	SOLUTION
Water leakage.	Analyze the reason for water loss.	Ensure that the clamps and terminals are in the correct position and have been tightened. If the water loss continues contact the pool manufacturer's after-sales service.
After the filter has started up, there is no flow in the return nozzle.	The valve is not in the "filter" setting.	Disconnect the filter and put the valve in the correct setting.
	The filter is above the level of the water and is unprimed.	Place the filter in the correct position and prime it.
	The suction cover or the skimmer plug has 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.	Due to use, the filter is dirty.	Perform a backwash.
	The filter is not primed.	Prime the filter.
Water comes out through the mouth of the filter.	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.
	The metal band is loose.	
The filter valve leaks through the drain terminal (WASTE).	Damage of inner coupling due to incorrect use of chemical products.	Change the top valve cover.
	Valve head broken due to incorrect use (over-tightening).	Do not put chemical products in the preliminary filtration skimmer basket.
		Change the valve head; do not over-tighten.
The motor does not start up. It makes no noise or vibration.	There is no current in the electrical line.	Make sure that there is current running in the electrical line.
The motor does not start but a buzzing sound can be heard.	Problem with the motor.	Please contact the vendor.