

# ***RTM SIDE***

**S-610-A - S-610-B - S-760 - S-920**

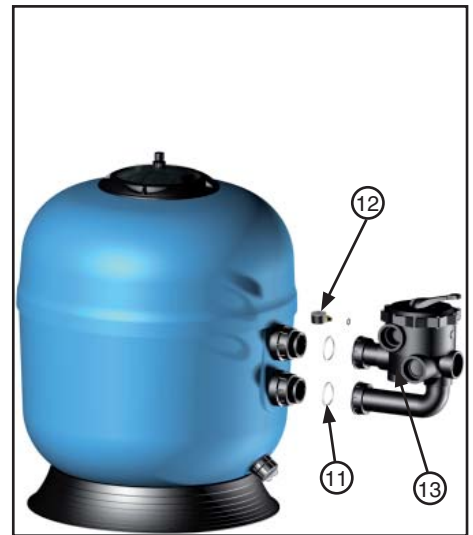
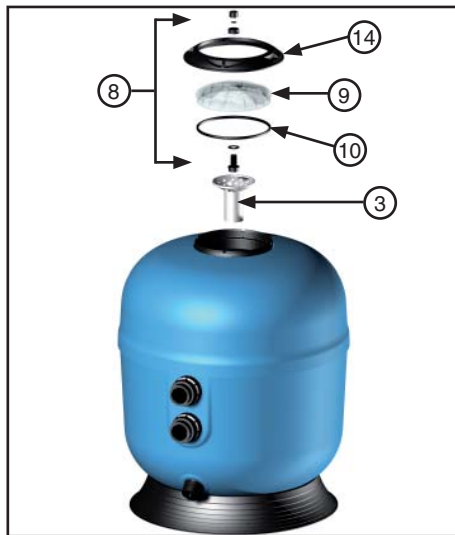
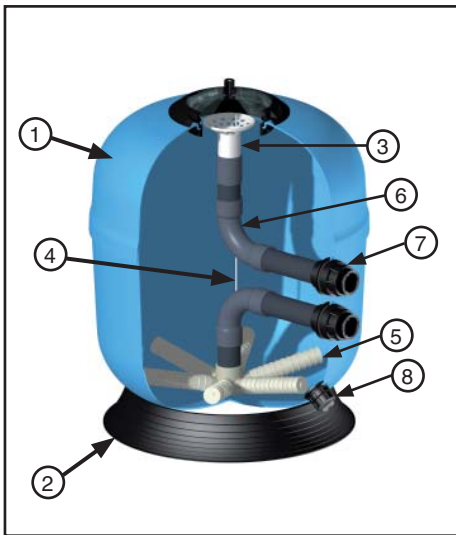
***SAND FILTER FOR SWIMMING POOLS***



***EXCELLENCE RANGE***

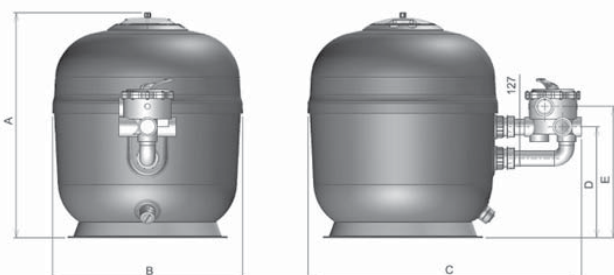
## **INSTALLATION AND OPERATING INSTRUCTIONS**

***To be read carefully and kept for future reference.***



Index	Number	Item designation
1	1	Tank
2	1	Base
3	1	Diffuser
4	1	Air bleed tube
5	6	Laterals
6	2	Elbow collector
7	2	Bulkhead fittings
8	2	Drain assembly
9	1	Lid
10	1	Lid o-ring
11	2	O-ring
12	1	Pressure gauge
13	1	Multiport valve
14	1	Fastening ring

FILTER	Ø 610	Ø 760	Ø 920
Filter medium (kg)	125	250	350
Filtration surface area (m2)	0.28	0.44	0.65
Operating pressure (bar)	1.6	1.6	1.6
Max pressure (bars)	2.5	2.5	2.5
Filtration rate according to NF P 90-30 2 (m3/h/m2)	50	50	50
Max flow rate (m3/h)	14	22	33



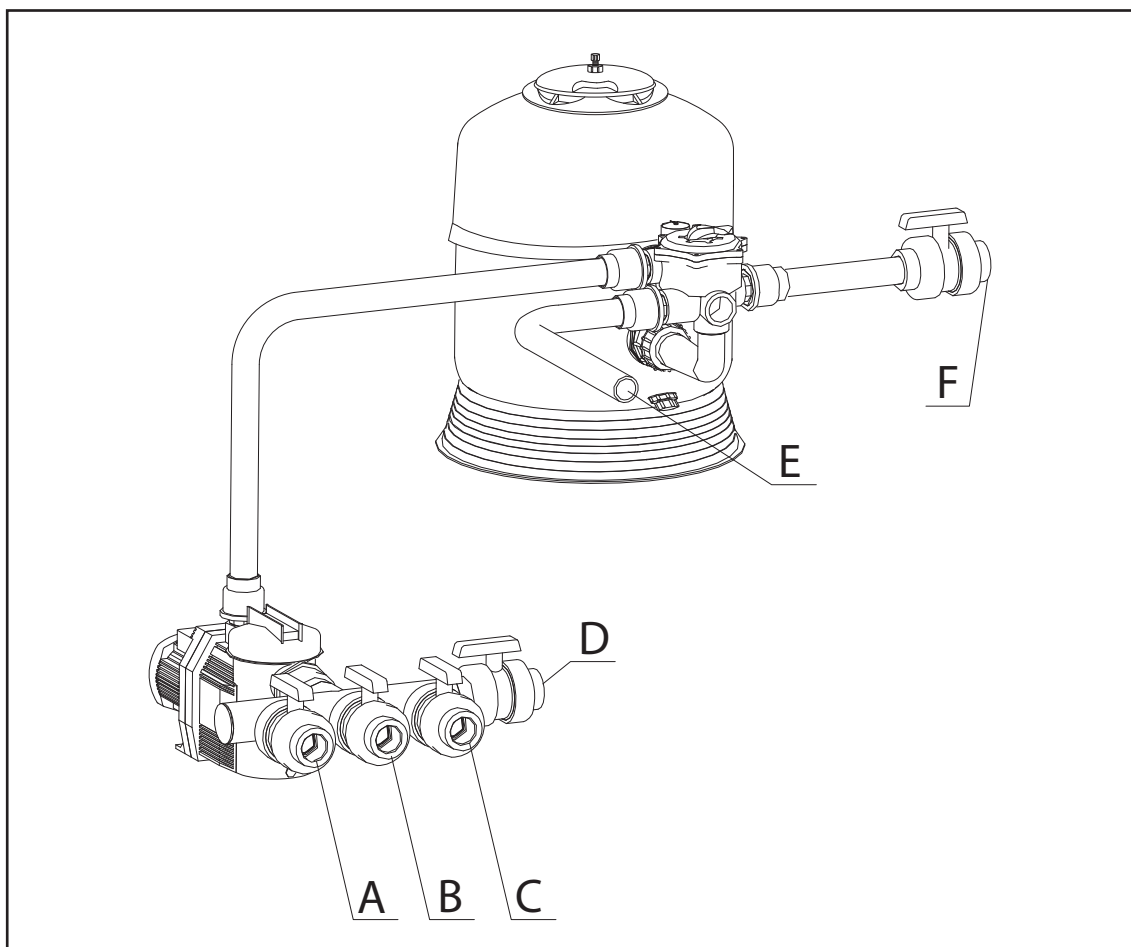
FILTER	VALVE	A	B	C	D	E
Ø 610 A	1" 1/2	850	612	894	378	437
Ø 610 B	2"	850	612	945	378	459
Ø 760	2"	1000	762	1097	448	529
Ø 920	2"	1140	922	1258	492	573

## **INSTALLATION RECOMMENDATIONS**

- Installation of the filter assembly below the water level of the pool is highly recommended. In the event that the filter is installed above the pool water level, a check valve, accessible through a service hatch, must be installed on the suction line.
- Allow a surface area of 1200 mm x 1200 mm for the installation.
- Position the control panel as close as possible to the multiport valve to facilitate manipulations.
- To prevent vibrations, and any resonance effect, insert a sheet of soft rubber between the base of the pump and the ground.

### **STANDARD INSTALLATION**

- A-B : Skimmers
- C : Main drain
- D : Vacuum point
- E : Return fitting
- F : Waste line



## ASSEMBLING THE FILTER

**1**

Remove the diffuser and swing the collector to the side.



**2**

Check that the drain valve is closed.

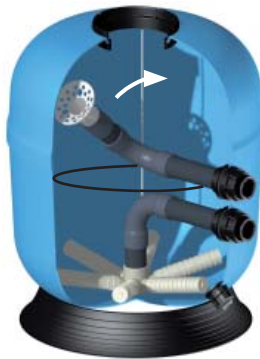
Fill the pump with water until the water level is 5 cm above the laterals.



**3**

Pour the sand (granulometry 0.6/1.25) in carefully to avoid damaging the laterals.

Put the diffuser back in position.



**4**

Fit the o-rings into the grooves on the bulkhead fittings.



**5**

Wind Teflon tape 4 times around the threading on the pressure gauge, remove the plug on the multiport valve and screw the pressure gauge into this position.



**6**

Fit the multiport valve: position the lower fitting first, then the upper fitting. Tighten the nuts moderately.



**7**

Assemble the air bleed valve on the lid.



**8**

Install the lid and lid o-ring.

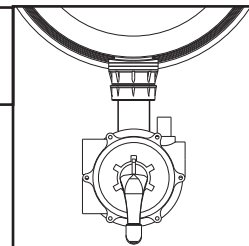
To facilitate assembly, wet the seal or use the lubricant, Magic Lube (code 1397200).

Caution: the use of any other type of lubricant is forbidden.

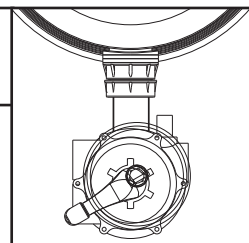


## MULTIPOINT VALVE FUNCTIONS

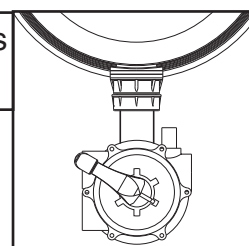
**FILTRATION:** The usual valve position. Water from the pump crosses the filter from top to bottom and returns to the pool.



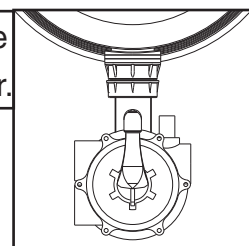
**DRAIN:** Water from the pump is routed directly to waste without passing through the filter.



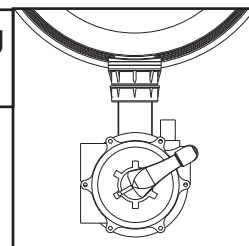
**CLOSED:** No circulation is possible. Never run the pump while the valve is in this position.



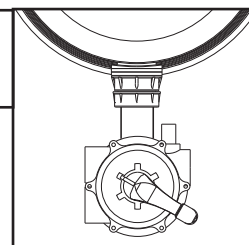
**WASHING:** Water from the pump passes through the filter from the bottom to the top and is then routed to waste taking with it all the impurities trapped in the filter.



**CIRCULATION:** Water from the pump returns directly to the pool without passing through the filter.



**RINSE:** Water from the pump passes through the filter from top to bottom and is then routed to waste.



**CAUTION! NEVER CHANGE THE VALVE POSITION WHILE THE PUMP IS ON, THIS COULD CAUSE SERIOUS DAMAGE TO THE FILTER AND WILL CANCEL THE GUARANTEE.**

## **OPERATION RECOMMENDATIONS**

### **IMPORTANT:**

When starting up the filter for the first time, observe the direction in which the water is flowing: in the "Filtration" position, water should pass through the filter from the top to the bottom. If the pipes were inverted during assembly, or the multiport valve is defective, water could cross the filter from the bottom to the top. This would rapidly lead to damage to both the tank and the laterals. The following indicate inverted assembly:

- a low pressure reading on the pressure gauge.
- a flow rate that drops rapidly even after back washing the filter even though the filter basket is clean.
- persistently cloudy pool water.

### **FILTER RUN TIMES:**

The filter run time corresponds to the theoretical time taken for all the pool water to pass through the filter. In family pools, the recommended run time is 6 hours minimum.

We recommend the following as a function of water temperature:

- below 14° C: 5 to 6 hours per day.
- from 15° to 23° C: 6 to 8 hours per day.
- above 23° C: 10 to 12 hours per day.

The filter run time should be increased with increasing temperature and/or with increasing pool use.

To optimise filtration, run the filter only during the day (between 8 am and 9 pm), and generally while the pool is in use. (One swimmer pollutes 3m<sup>3</sup> of water).

### **BACK WASHING THE FILTER:**

Before using the filter for the first time, carry out a backwash to clean it and remove any excess sand or impurities. After back washing the filter, change the valve position to filtration and switch the pump on. The black hand on the pressure gauge will indicate the filter's nominal pressure. This pressure varies depending on the pump flow rate, static pressure and pressure drops across the piping. .

To preserve a record of this nominal pressure, turn the dial of the pressure gauge until the blue hand is aligned with the black one.

After a certain time, a drop in the flow rate may be noted at the return fittings. This is caused by the gradual build up of impurities in the filter or the filter basket.

#### **1°) Filter pressure is below the pressure indicated by the blue hand: clean the filter basket and the skimmers:**

- Stop the pump,
  - Put the 6-way multiport valve to "CLOSED",
  - Close the suction valves A, B, C, D (skimmers, main drain) and the return fitting valve E,
  - Open the prefilter and take out the basket,
  - Using a jet of water remove any debris,
  - Put the basket back,
  - Replace the lid of the prefilter making sure that the seal is correctly positioned and that there is enough water to prime the pump,
- Clean out the skimmers.

- Put the 6-way multiport valve to "FILTRATION",
- Open the suction valves A, B, C, D (skimmers, main drain) and the return fitting valve E,
  - Restart the pump,
  - Purge air from the filter.

This operation should be carried out each time the pool is vacuumed using a brush on a suction line, and at least once a week.

#### **2°) Filter pressure rises out of the green zone: Backwash the filter:**

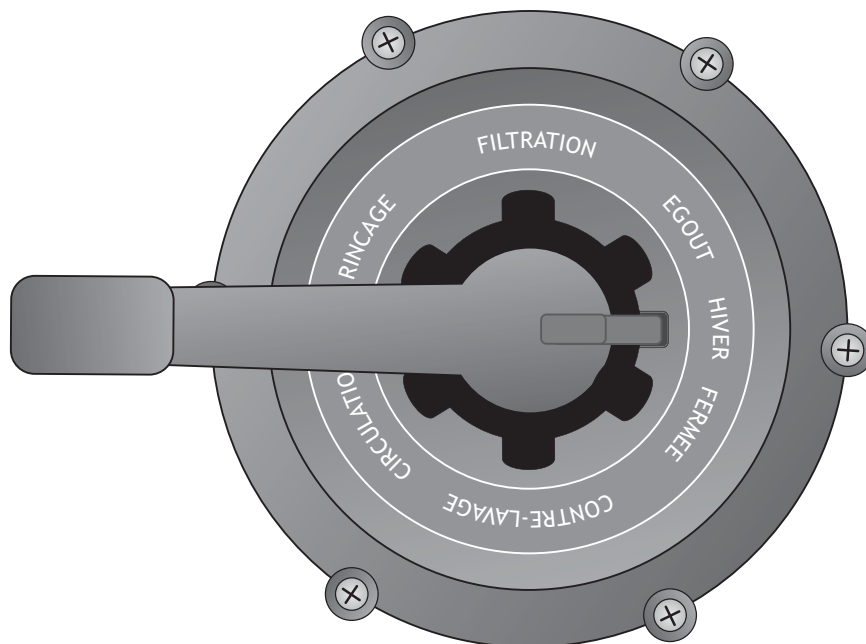
- Stop the filter,
  - Check the prefilter for debris. (If there is a build-up of dirt clean it out as described above),
  - Put the 6-way multiport valve to the "WASH" position,
  - Open the 1/4 turn valve (F) on the outflow pipe,
  - Turn the motor on,
  - Monitor the water colour through the turbidity sight glass on the 6-way multiport valve.
- Caution, cleaning will start after a few seconds. (The water becomes very cloudy)
- As soon as the water in the turbidity sight glass becomes clear, stop the pump,
  - Put the 6-way multiport valve to the "RINSE" position,
  - Turn the pump on for about 20 to 30 seconds. The purpose of this step is to evacuate any remaining impurities and settle the sand,
  - Stop the pump,
  - Put the 6-way multiport valve to the "FILTRATION" position,
  - Restart the pump,
  - Close the 1/4 turn valve (F) on the waste line.

After back washing, the black hand on the pressure gauge should be realigned with the blue hand, that is the pressure reading should return to the nominal pressure

In the event that the pressure indicated by the pressure gauge does not drop after back washing the filter once (or even twice) contact your installer.

### WINTERIZING THE INSTALLATION:

- Backwash the filter,
- Treat the pool water with winterizing products.
- Run the pump with the mulitport valve set to "circulation" to homogenise the concentration of these chemicals in the pool water.
- Stop the pump,
- Turn the mulitport valve to the "DRAIN" position,
- Open the valve on the waste line,
- Close the skimmer and vacuum point valves,
- Turn the motor on,
- Lower the water level by about 30 cm,
- Next, drain the filter by unscrewing the drain plug at the base,
- Close all the valves,
- Unscrew the drain plugs on the motor,
- Cut power to the control panel,
- Store the motor somewhere dry.
- Put the 6-way valve to "HIVER" (WINTER) (see below).



## **GUARANTEE**

As of the initial date of invoice\* issued by PROCOPi to the client company,

- 1) The shell is guaranteed for 5 years against any leaks caused by porosity, failure, or cracking of the material and not attributable to an impact, use at any pressure other than that stipulated in the installation instructions, erosion of the inner surface caused by impacting of the sand or inverted water circulation, freezing of the water in the shell, etc.
  
- 2) The parts of the filter that may be dismantled and removed (laterals, lid, base, multi-port valve, throughwall flanges and their seals, RTM filter neck-O-ring, RTM filter check valve, etc.) are covered by a 2 year guarantee against defects and damage that is not attributable to abnormal use.\*\*

The aforementioned defective parts shall be replaced, and unless otherwise agreed with PROCOPi, the guarantee covering removable parts will under no circumstances result in the exchange of a complete filter.

\*The changing of an item of equipment or part manufactured or distributed by PROCOPi shall under no circumstances modify the expiration date of the guarantee covering said item of equipment or part and that is calculated based on the initial date of invoice.

\*\*examples of abnormal use:

- o Corrosion of materials (seals, etc.) in contact with water attributable to the the presence of an oxidant (chlorine, bromine) at a concentration higher than that recommended for pool use.
- o Failure to respect the recommended sand granulometry.
- o Stress-cracking of ABS parts due to the use of lubricants containing surfactants on their threading or connections.
- o Pressure higher than the maximum service pressure.
- o Circulation of water in the opposite direction to that recommended due to incorrect connection of pipes to the multi-port valve.
- o Sand media cemented by limescale leading to the creation of several preferential paths through the filter media.

## Notes

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