

HYDROTOOLS™

By **SWIMLINE®**



71610 / 71915 / 71915-2 / 72220 / 72420 / 72420-2
**FULLY INTEGRATED SAND FILTER, PUMP,
PRESSURE VALVE & STAND**
INSTRUCTIONS

SAFETY INFORMATION:

1. Sand filters are designed to work with water temperatures between 33.8°F and 113°F (1°C - 45°C). The filter should never be operated outside of these temperatures or damage may occur.
2. The installation should be carried out in accordance with the safety requirements of the swimming pool industry and the specific requirements for each application.
3. 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 may fail, causing severe injury or property damage.
4. The operating safety of the filter is only guaranteed if the installation and operation instructions are correctly followed.
5. To reduce the risk of injury, do not permit children to use this product.
6. Chemical spills and fumes can weaken Swimming Pool/ Spa components. Corrosion can cause filters and other equipment to fail, resulting in severe injury or property damage.
Do not store pool chemicals near your equipment.
7. Any modification of the filter or use of unauthorized parts will void your warranty. The supplier assumes no liability for the damage and injuries caused by unauthorized replacement parts and accessories.
8. In the event of defective operation or faulty components, contact the supplier or its nearest authorized service agent

SAND FILTRATION WORKING PRINCIPLE:

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.

PREPARATION BEFORE INSTALLATION:

1. Position the filter as close to the Swimming Pool/ Spa as possible.
2. The filter should be placed on a level concrete slab, very firm ground, or equivalent. Ensure that the ground will not give way or erode, thus preventing any strain to the attached plumbing.
3. Position the filter under consideration of the piping connections, so that it is convenient for operating and servicing.
4. Ensure that the compliance label is facing the front to allow for easy identification of pertinent information, in the event of service requirement.

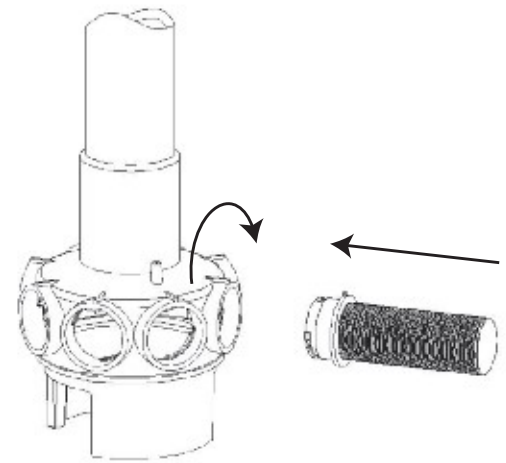
HOW TO INSTALL THE FILTER TANK:

1. Install sand filter tank onto the filter / pump base (part #s 6 & 1 / Item# 71623, 71923, 72223, or 72423; on Pg. 5). Turn right to lock into place. Position the outlet drain plug facing outward for ease of access.
2. Before filling the filter media (sand) into the filter vessel, do a visual check of the laterals. Replace broken or loose laterals if necessary. Install the laterals, aligning the raised point of the laterals to the raised indicator point on the umbrella style lateral holder. (Part# 3 / Item# 71608 or 72408; on Pg. 5).

Insert the laterals and turn 90° clockwise.
After hearing the locking sound, the lateral is well installed.

Please refer to the following picture on the right.

3. Check that the air release hose (Part# 5 / Item# 71624, 71924, or 72224; on Pg. 5) is fixed well on the body of lateral holder, and that the other end of the air release hose is out of the sand. **DO NOT** embed the air release hose in the sand.
4. To eliminate stress on the laterals, fill the filter vessel with enough water to provide a cushioning effect when the filter sand is added.
5. Temporarily install the Sand Deflector. This is the included piece of clear plastic designed to fit on the top of the sand tank and center, stand pipe (Part# 4 / Item# 71603, 71903, or 72203; on Pg. 5). It is used to prevent sand from entering the pipe when adding sand to the filter tank. **(PLEASE NOTE: Be sure to remove and store deflector in safe place; before connecting the top mount valve)**
6. Carefully pour the sand into the filter vessel and make sure to prevent sand from entering the stem pipe. Please pour the quantity of sand according to the filter tank label.
7. Ensuring that the filter top mount valve is free of sand residue, put the O-ring on the top valve mount and then install the valve on the filter vessel. Place the top mount valve on the filter tank so that the port labeled 'PUMP' is facing the pump **(PLEASE NOTE: This is the port with raised lettering that says 'PUMP'; to the right side of the port)**. Make sure that the stem pipe had fixed well with the top valve mount and tighten the flange clamp to affix the valve. **NOTE: The flange clamp should be well affixed. A poorly affixed clamp can cause injuries!**
8. Using screws from the pump hardware pack, affix the pump to the base. Please reference the pump installation instructions to operate the pump.
9. Apply Teflon tape (included) to the smaller diameter male threaded side of the white double-male threaded adaptor (part# 10 / 71626; on Pg 5). Attach this adaptor to the port (on the top mount valve) that only has internal 'female' threading.
10. Adjust the valve position and use the white PVC hose, with installed union nuts, and O-rings (Part #11/ Item #s 71607, 71907, or 72207; Pg 5) along with white double 'male-threaded' adaptor (attached in step# 9), to connect the valve to the pump.
11. Apply Teflon tape (included) to both threaded hose adaptors and attach one to the port that has raised letters that say 'RETURN' (on the side; by threading). Connect the included 1.5" x 6' hose from the top mount valve to the pools return (inlet jet). This is one of the two ports that has both internal and external threading. Attach the 2nd threaded hose adaptor to the female threaded opening on the front of the pump. Connect the 2nd (included) 1.5" x 6' hose from the installed adaptor on the pump to the pools thru-wall skimmer.
12. The final port is used to connect the drain / outlet / waste hose **(NOT INCLUDED)**. This port has raised letters that say 'WASTE' (on the side; by threading).
13. Remove, thumb-screw plug, from the top mount valve, that is located on the opposite side from the 'PUMP' port. Apply Teflon tape (included) to the male threads on the provided pressure gauge (part# 15 / 8961; on Pg 5). Attach pressure gauge to the top-mount valve; where thumb screw plug was removed.



INSTALLATION NOTES:

1. Make sure the filter is operating under normal working pressure. Use a pressure control valve when the system pump is operating.
2. If the pump position is higher than the water level, it requires installing a back water control valve.
3. If the pump position is lower than the water level, it requires installing an isolation valve. Incorrect filter position can interfere or stop water return.
4. For maximum water flow, use as few hose connections as possible & keep hose bending to a minimum.
5. Ensure solvents are not excessively applied to fittings as this could run into O-ring and create sealing problems.
6. Do not over tighten fittings or adapters.

HOW TO USE:

Prior to setting up the filter system, ensure that the pump is off, as failure to do so will cause spider valve to malfunction and damage top mount valve. Pump must be off anytime valve handle is depressed and moved to any of the various functions.

1. Inspect all that connections have been made correctly and are secure.
2. Depress top mount valve handle and rotate to BACKWASH position.
3. Prime and start pump according to pump instructions.
NOTE: 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 VESSEL IS FILLED WITH WATER BEFORE STARTING UP THE PUMP OR IT WILL CAUSE THE DAMAGE TO PUMP.
4. Once water flow is steady out the waste line, run the pump for at least 2 minutes. The initial back-washing of the filter is recommended to remove any impurities or fine sand particles in the sand media.
5. Turn pump off and set valve to RINSE position. Start pump and operate until water in sight glass is clear. . . about 1/2 to 1 minute. Turn pump off, set valve to FILTER position and restart pump. Your filter is now operating in the normal filter mode, filtering particles from the pool water.

NOTES:

1. Note the initial pressure gauge reading when the filter is clean. (It will vary from pool depending upon the pump and general piping system). As the filter removes dirt and impurities from the pool water, the accumulation in the filter will cause the pressure to rise and flow to diminish. When the pressure gauge reading is 8-10 PSI (0.55-0.69 BAR) higher than the initial "clean" pressure you noted, it is time to backwash (clean) the filter.
2. **IMPORTANT:** To prevent unnecessary strain on piping system and valves, always shut off pump before switching filter control valve position.
3. To prevent damage to the pump and filter and for proper operation of the system, clean pump strainer and skimmer baskets regularly.

FILTER CONTROL VALVE FUNCTIONS:

Filter- Set valve to FILTER for normal filtering. Also use for regular vacuuming.

Backwash- For cleaning filter. When filter pressure gauge rises 8-10 PSI (0.55-0.69 BAR) above start-up (clean pressure):

Stop the pump, set valve to BACKWASH. Start pump and backwash until water in sight glass is clear. Approximately 2 minutes or less; depending on dirt accumulation. Proceed to RINSE.

Rinse – After backwashing, with pump off, set valve to RINSE. Start pump and operate for about 1/2 to 1 minute. This ensures that all dirty water from backwashing is rinsed out of the filter to waste, preventing possible return to the pool. Stop pump, set valve to FILTER and start pump for normal filtering.

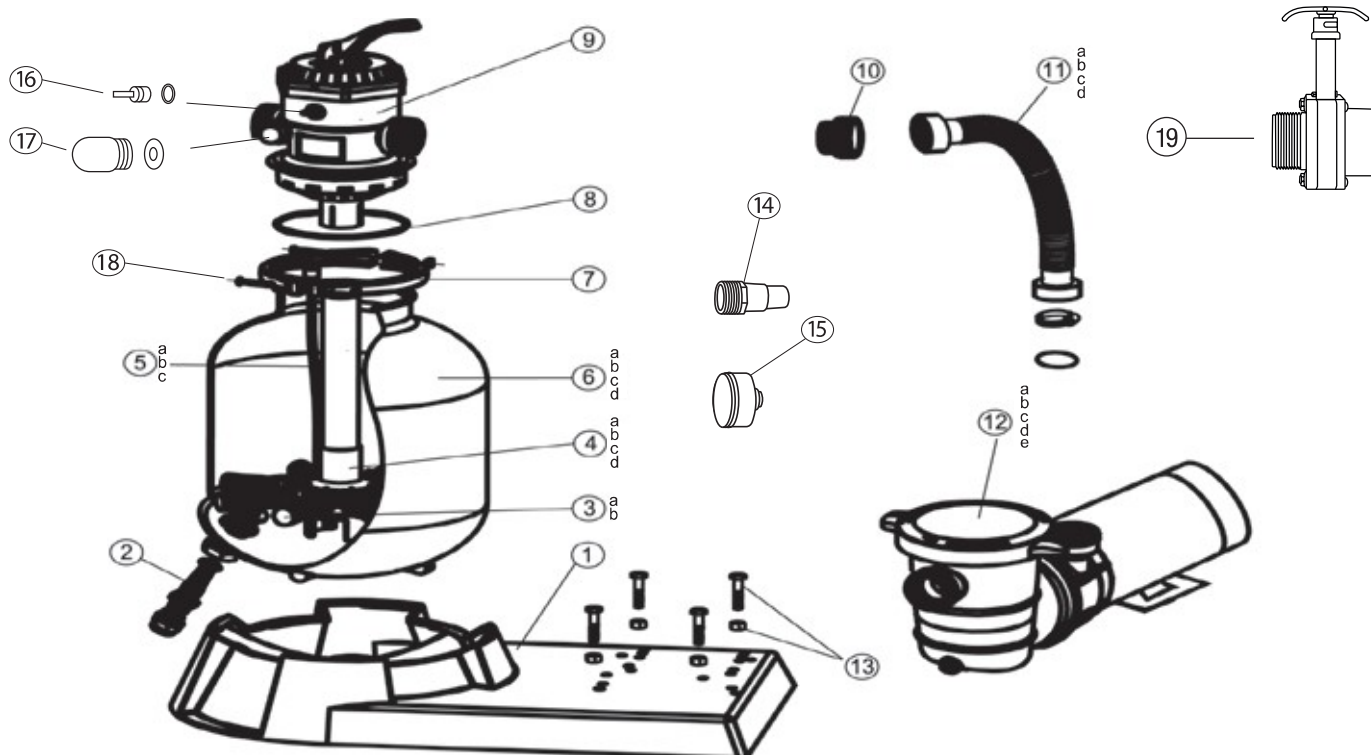
Waste- To bypass filter for draining or lowering water level and for vacuuming heavy debris directly to waste.

Re circulate- Water is re-circulated through the pool system; bypassing the filter.

Closed- Shuts off flow from pump to filter.

SPECIFICATIONS:

MODEL NO:	FLOW RATE		MAX PRESSURE		FILTER AREA		MEDIA REQUIRED		
	GPM	M ³ /H	PSI	BAR	ft ²	m ²	TYPE	AMOUNT	
							Filter Sand*	LBS	KG
71610	40	9	50	3.5	1.25	0.12	0.018-0.022 in.	100	45
71915	49	11	50	3.5	2.0	0.19	0.45-0.56 mm	175	79
71915-2	60/33	13.6/7.5	50	3.5	2.0	0.19	0.018-0.022 in	175	79
72220	52	11.8	50	3.5	2.64	0.24	0.018-0.022 in.	250	113
72420	62	14	50	3.5	3.14	0.29	0.018-0.022 in.	300	136
72420-2	69/35	15.7/8.0	50	3.5	3.14	0.29	0.018-0.022 in.	300	136



Ref.No.	Part No.	Description	Qty.
1	71622	Sand Filter Support for 71610,71915,72220,72420	1
2	71604	Drain plug for 71610,71915,72220,72420	1
3a	71608	Lateral for 71610,71915,72220	8
3b	72408	Lateral for 72420	1
4a	71603	Center Pipe for 71610	1
4b	71903	Center Pipe for 71915	1
4c	72203	Center Pipe for 72220	1
4d	72203	Center Pipe for 72420	1
5a	71624	Air Release assembly for 71610	1
5b	71924	Air Release assembly for 71915,72220	1
5c	72224	Air Release assembly for 72420	1
6a	71623	Filter Tank for 71610	1
6b	71923	Filter Tank for 71915	1
6c	72223	Filter Tank for 72220	1
6d	72423	Filter Tank for 72420	1
7/8/18	71602	Flange Clamp, O-Ring, and Hardware for 71610,71915,72220,72420	1
8	71612	O-Ring for 71610,71915,72220,72420	1
9	71601	6-Way Valve for 71610,71915,72220,72420	1
10	71626	Adaptor for 71610,71915,72220,72420	1
11a	71607	PVC Hose for 71610	1
11b	71907	PVC Hose for 71915	1
11c	72207	PVC Hose for 72420	1
11d	72207	PVC Hose for 72220	1
12a	716061	Pump for 71610	1
12b	719061	Pump for 71915	1
12c	722061	Pump for 72220,72420	1
12d	71916	Pump for 71915-2	1
12e	71926	Pump for 72420-2	1
13	71609	Screw M8x35 and Nut M8 for 71610/71915/72220/72420	4
14	71605	1.25-1.5" Hose Adaptor	4
15	8961	Rear Mount Pressure Gauge	1
16	71601-7&8	Valve Thumbscrew & Gasket	1
17	71601-9&10	Sight Glass & Gasket	1
18	N/A	Flange Clamp Hardware (includes 2 bolts, 2 square nuts)	1
19	89960	Slice Valve	1
N/A	8948	Teflon Tape (Roll)	2
N/A	8957	Hose Clamp	4
N/A	6206	1.5" x 6' Filter Connection Hose	2
N/A	N/A	Tank (Assembly Only) Sand Deflector	1

This unit has a one-year limited warranty from manufacturer defects.

To extend the life of your filter pump:

- Actual filter run time depends on pool size/gallons & HP of pump. See online calculators.
- The average run time is approx. 8 hours a day to circulate & clean pool water.
- Adjust run time to 10–12 hours as needed for larger pools, multiple bathers & algae growth, etc.
- **Never** run your pump 24 hours consecutively. This will void warranty.
- We recommend running in **Non-Consecutive Hour cycles**; no more than **6–8 hours** at a time.
- Run off peak hours, using an after-market timer to maximize utility savings.

Cet appareil bénéficie d'une garantie limitée d'un an contre les défauts de fabrication.

Pour prolonger la durée de vie de votre pompe de filtration :

- La durée de fonctionnement du filtre dépend de la dimension de la piscine (nombre de litres) et de la puissance de la pompe. Consultez les calculateurs en ligne.
- La durée de fonctionnement moyen est d'environ huit heures par jour pour faire circuler et nettoyer l'eau de la piscine.
- Ajustez la durée de fonctionnement de 10-12 heures selon les besoins pour les piscines plus grandes, le nombre de baigneurs, la croissance d'algues, etc.
- Ne laissez **jamais** rouler la pompe 24 heures consécutives. Cela viendra annuler la garantie.
- Nous vous recommandons de laisser fonctionner la pompe sur **des cycles non consécutifs** ne dépassant pas de **six à huit heures** à la fois.
- Utilisez hors des heures d'achalandage, utilisez un chronomètre de seconde main pour maximiser l'épargne sur l'électricité.

Esta unidad tiene una garantía limitada de un año contra defectos del fabricante.

Para extender la vida útil de la bomba del filtro:

- El tiempo de uso del filtro depende del tamaño de la piscina, galones de agua y caballos de fuerza de la bomba. Para cualquier duda, vea calculadoras en línea.
- El tiempo de uso promedio es de aproximadamente 8 horas al día a fin de que el agua circule y limpie la piscina.
- Agregue un tiempo de uso de 10 a 12 horas para piscinas más grandes, múltiples usuarios, crecimiento de algas, etc.
- **Nunca** utilice la bomba por 24 horas de manera consecutiva. Esto eliminaría la garantía.
- Recomendamos que su uso sea en **ciclos de tiempo no consecutivos**, no más de **6 a 8 horas** por ciclo.
- No lo utilice en horas pico, maximice su ahorro con un temporizador que aproveche los tiempos de menor demanda de electricidad.

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