

# SAND FILTER INSTRUCTIONS



*Please retain this Booklet for future reference*

## TECHNICAL DATA

MODEL NO.	SF-T16 ●	SF-T18 ●	SF-T21 ●	SF-T25 ●	SF-T28A ●	SF-T28B ●	SF-T30 ●
FILTER AREA(m)	0.13	0.16	0.22	0.30	0.40	0.40	0.45
HEIGHT(mm)	760	815	880	1005	1100	1150	1180
TANK DIA. (mm)	400	450	525	625	700	700	750
DESIGN FLOW(lpm)	105	133	192	270	320	320	390
SILICA SAND(kg)	30	40	85	155	185	185	200
VALVE PORT SIZE(mm)	40	40	40	40	40	50	50

MAXMUM WORKING PRESSURE: 350kpa

## READ THESE INSTRUCTIONS THOROUGHLY BEFORE OPERATING YOUR FILTER

NEVER run the motor and pump without water. Water acts as a coolant and lubricant for the pump seal. If the pump is run dry, the seal will be damaged and your warranty will be void.

### DANGER — ELECTRICITY CAN KILL!

1. Electrical current must be AC, 115 Volt, 60 Hertz, 220 Volt, 50Hertz, 380Volt, 50Hertz.
2. Use a grounded receptacle. If it is necessary to use an extension cord, use only a 3-wire cord and ground the third wire at the electrical outlet. If the length of the cord is 25 ft. or shorter, use a 12 gauge (AWG) cord. If the cord is 50 ft. use a 10 gauge (AWG) cord. The use of light-duty extension cord will cause motor failure and void your warranty.
3. Circuit must be protected by a ground fault interrupter (G.F.I.) in accordance with Section 680-31 of the National Electrical Code.
4. All electrical wiring should be performed by qualified personnel and must conform to local codes and regulations.

### THINGS TO DO OR WARRANTY WILL BE VOID

1. Always turn off motor and pump while changing setting on push-pull or rotary valve.
2. Never vacuum in the backwash position as this will clog the underdrain and damage your filter. Vacuum in the filter position or waste positions only.
3. Never expose tank to pressures over 20 psi. Serious personal injury could result.
4. If you have a pool water heater, the heater must be shut off prior to backwashing or turning filtration system off.
5. At the end of each season, drain the filter and clean the tank thoroughly. Store tank without valve assembly so as to allow the tank to vent out any chlorine gas.
6. Store tank indoors away from any heat or flame source.
7. Drain pump assembly, spray motor shaft with lubricant and store indoors.

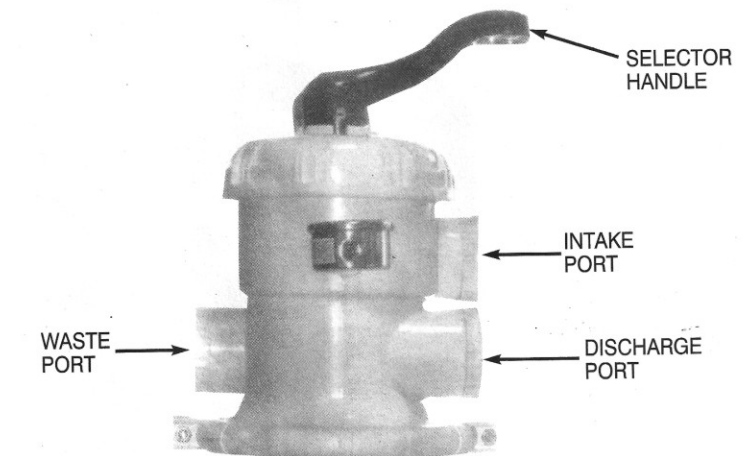
### FILTER SAFETY

1. **ELECTRICITY CAN KILL:** Remember this at all times when operating your filter system.
2. Provide a ground fault interrupter (G.F.I.) in accordance with the National Electrical Code.
3. Filter **MUST** be grounded. Connect into grounding type socket.
4. **NEVER** place filter where it could be pushed or in some way fall into pool (e.g. setting atop a pool deck).
5. Place filter in such a way that it is inaccessible to children.
6. Children must be supervised by an adult at all times.
7. Never run the filter system with more than 20 psi pressure. Tank could rupture and serious personal injury could result.
8. Do not allow **ANYONE** under the influence of alcohol or drugs to use your pool, pool filter or any pool products.
9. If you have any problem with your pool filter, the cause of which is not readily evident, call your dealer.
10. Misuse of pools, pool ladders, pool filters and any other related products may result in death or serious injury. Keep this in mind when in or around pools.

## ASSEMBLY OF FILTER

**NOTE:** Filter is partially assembled but nothing has been tightened.  
Tighten all screws, clamps, nuts, etc. before operating system.  
Allen Key included with the spare parts

1. Place tank on level, solid ground approximately 2 to 3 feet away from either pool skimmer.
2. Remove the plastic clamp halves and take off the valve assembly from tank.
3. Fill tank no more than 2/3 full of sand. Too much sand can cause either valve to seize or feed sand back into the pool.
  - Use only Filter Grade Sand (available at your dealer).
4. For 6-position (Rotary) Valve, place the clear center pipe cover over the EXPOSED END of the center pipe to keep sand from entering the center pipe while filling the tank with sand. Pour filter-grade sand into the tank.
5. Clean sand off tank flange before installing valve assembly.
6. With sand in filter, add water to the tank until full.
7. For 6-position (Rotary) Valve, ensure that the exposed standpipe end is free of sand and contains a small amount of valve lubricant. Place valve assembly over standpipe and push valve down over the pipe. Attach the plastic clamp halves over the joined parts. Attach and fasten hardware evenly. Place hose connectors into 1.50" threaded openings.
8. Install pump and lint trap as per pump manufacturer's instructions.
9. Attach one 6 ft. hose from the pool's thru-the-wall skimmer to the front opening of the lint trap of pump. Use teflon tape (not included) to create a water-tight seal. Place a hose clamp over the pump inlet connection and tighten.
10. Connect short hose between pump motor discharge (vertical opening) and the filter intake.
11. For 6-position (Rotary) Valve, filter intake is the upper connector of the pair of connectors located on same side of valve. Use teflon tape (not included) to create a water-tight seal. Place and tighten a hose clamp over the pump discharge connection and the filter intake.
12. Attach a 6 ft. hose from the filter discharge to the return jet into the pool. Filtered water is discharged from the lower connector of the pair of connectors located on same side of valve.
13. Place teflon tape (not included) on threads of pressure gauge and place gauge into threaded opening.



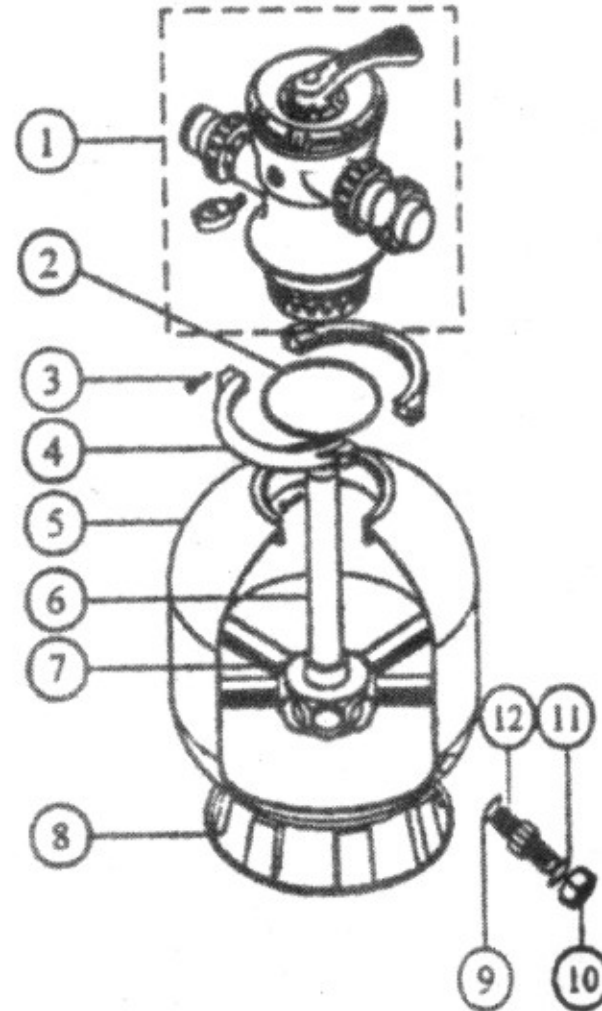
## OPERATION OF FILTER

**NOTE:** It is important to remember that your pump motor must always receive an uninterrupted supply of water to run properly. Therefore, always maintain the appropriate amount of water in your pool and in your filter system. Failure to do so could cause you to run the pump dry, damaging the pump water seal.

- PRIME FILTER** — Motor must be turned off. Place valve in "backwash" position. For 6-position (rotary) valve, place selector onto "backwash". Ensure "waste" connection on valve is pointing away from motor-pump.
  - Remove lid to optional lint trap and fill canister with water. Fill hose leading to the pump and thru-the-wall skimmer with water. Re-install cover to optional lint trap. Connect pump to outlet. Look through the optional lint trap to see if water is moving thru the system. If properly primed, air pocket inside lint trap will be eliminated. Any harsh noise (cavitation) made by the pump will also be eliminated within a few seconds. Repeat above until steady stream of water is discharged from the tank. Turn off pump.
- OPERATE FILTER** — Place valve in "filter" position. Place selector on "filter". Connect motor-pump to outlet. Once running normally, make a note of the starting pressure.
- BACKWASH FILTER** — When filter reads 5 psi above starting pressure or when there is significantly reduced flow, backwash filter to clean out tank. Turn off the motor-pump. Place valve in "backwash" position. Place selector on "backwash". Ensure "waste" connection on valve is pointing away from motor-pump. Backwash filter for a maximum of 2 minutes (until water runs clear.) Do not backwash longer than necessary. Turn off motor and place valve in "filter" position. Follow "operate filter" (step 2) instructions.
- DIRT WASTE** — This setting discharges water and bypasses the filter entirely. It is typically used when vacuuming a large amount of debris from the pool. Can also be used to lower the height of the pool water or to drain the pool. Place selector onto "waste". Connect power back to the motor-pump to begin discharging water.
- RECIRCULATE** — This setting bypasses the filter entirely, returning water to pool un-filtered. It is typically used during pool opening or when adding chemicals to pool water.
- RINSE** — This setting allows water to flow through filter but discharges water out the waste port. It is typically used when adding fresh sand to the filter or after backwashing.



## FILTER REPLACEMENT PARTS



ITEM	PART NO.	DESCRIPTION
1	BS SG-01	VALVE
2	BS SG-02	O-RING
3	BS SG-03	SCREW
4	BS SG-04	FLANGE CLAMP
5	BS SG-05	FILTER TANK
6	BS SG-06	LATERAL ASSEMBLY WITH CENTER PIPE

ITEM	PART NO.	DESCRIPTION
7	BS SG-07	LATERAL
8	BS SG-08	FILTER BASE
9	BS SG-09	O-RING
10	BS SG-10	DRAIN CAP
11	BS SG-11	O-RING
12	BS SG-12	DRAIN

## PROBLEM SOLVING LIST

LOW WATER FLOW	SHORT FILTER CYCLES	POOL WATER WON'T CLEAR UP
<ol style="list-style-type: none"> <li>Check skimmer and pump strainer baskets for debris.</li> <li>Check for restrictions in intake and discharge lines.</li> <li>Check for air leak in intake line (indicated by bubbles returning to pool).</li> <li>Backwash filter.</li> </ol>	<ol style="list-style-type: none"> <li>Check for algae in pool and superchlorinate as required.</li> <li>Be sure chlorine and pH levels are in proper range. Adjust as required.</li> <li>Check surface of filter sand for crusting or caking. Remove 1" of sand if necessary.</li> </ol>	<ol style="list-style-type: none"> <li>Check chlorine, pH and total alkalinity levels and adjust as required.</li> <li>Be sure flow rate through filter is sufficient.</li> <li>Operate filter for longer periods.</li> <li>Be sure valve is set on "Filter" position.</li> </ol>

## POOL CHEMISTRY GUIDELINES

SUGGESTED POOL CHEMISTRY LEVELS	ACTION REQUIRED TO CORRECT POOL CHEMISTRY	
	TO RAISE	TO LOWER
pH 7.2 to 7.6	Add pHix It UP	Add pHix It DOWN
TOTAL ALKALINITY 100 to 130 ppm	Add ALKA pHix	Add pHix It DOWN
CHLORINE (Unstabilized) 0.3 to 1.0 ppm	Add Chlorine Chemical	No action - Chlorine will naturally dissipate
CHLORINE (Stabilized) 1.0 to 3.0 ppm	Add Chlorine Chemical	No action - Chlorine will naturally dissipate
CHLORINE STABILIZER (Cyanuric Acid) 40 to 70 ppm	Add Chlor-Guard	Dilution — partially drain & refill pool with water that has not been treated with Cyanuric Acid