



SANDIA

S A N D F I L T E R S

- Residential
Hi-Rate Sand Filters
- Light-Medium Commercial
Standard Media Depth Sand Filters
- Heavy Commercial
Medium Media Depth Sand Filters
- Deep Bed Commercial
Maximum Media Depth Sand Filters
- Industrial
High Pressure Standard Media
Depth Filters



FUNCTION

The filter uses special filter sand to remove dirt particles from pool water. The filter sand is loaded into the filter tank and functions as the permanent dirt removing media. When the control valve is in the FILTER position, the pool water which contains suspended dirt particles, is pumped through your piping system and is automatically directed by the patented filter control valve to the top of the filter tank. As the pool water is pumped through the filter, dirt particles are trapped by the sand bed, and filtered out. The cleaned Pool water is returned from the bottom of the filter tank, through the control valve and back to the pool through the piping system. This entire sequence is continuous and automatic and provides for total recirculation of pool water through your filter and piping System. After a period of time the accumulated dirt in the filter causes a resistance to flow, and the flow diminishes. This means it is time to clean your filter. With the control valve in the BACKWASH position, the water flow is automatically reversed through the filter so that it is directed to the bottom of the tank, up through the sand, flushing the previously trapped dirt and debris out the waste line. Once the filter is back-washed of dirt, set control valve to RINSE position and run pump for about 1/2 to 1 minute, and then to filter, to resume normal filtering.

NOTE: Turn pump off before changing valve position.

INSTALLATION

Only simple tools (screwdriver and wrenches), plus pipe sealant for plastic adapters, are required to install and service the filter.

1. The filter should be placed on a level concrete slab, very firm ground, or equivalent. Position the filter so that the piping connections, control valve are convenient and accessible for operation and service.
2. Loading the sand media. Filter sand media is loaded through the top opening of the filter.
 - a. Connect control valve to the filter using pipes with unions and glues.(see the fig on page4).
 - b. Loosen the twelve nuts and washers and remove the filter coping.
 - c. We recommend filling tank approximately 1/3 way with water to provide a cushion effect when the filter sand is poured in. This helps protect the under-drain laterals from excessive shock.
 - d. Carefully pour in correct amount and grade of filter sand. Sand surface should be leveled and should come to about the middle of the filter tank.

3. Replace filter coping. Put the twelve nuts and washers onto each of the twelve bolts, then screw all the nuts on with wrench, ensuring that all nuts are tight.
 - a) Carefully screw pressure gauge (with O'ring in place) into tapped hole in the filter coping. Do not over tighten.
 - b) Ensure air relief valve (with O'ring in place) is tight fit to filter coping and turn it easily.
4. Connect pump to control valve opening marked PUMP.
5. Make return to pool pipe connection to control valve opening marked RETURN and complete other necessary plumbing connections, suction lines to pump, waste, etc.
6. Make electrical connections to pump per pump instructions.
7. To prevent water leakage, be sure all pipe connections are tight.

MAIN DIMENSION

FILTER / PUMP - SELECTION GUIDE

CODE	FILTER		MEDIA		PIPE / CONNECTIONS		PUMP - H.P.		PUMP - KW		OUTPUT m ³ / hr	
	TYPE	Ø-MM	AREA (m ²)	WEIGHT (kg)	INCH	mm	MIN	MAX	MIN	MAX	MIN	MAX
16014	SSR-16	450	0.135	50	1 ½	50	½	½	0.24	0.37	4.0	6.5
18014	SSR-18	460	0.166	75	1 ½	50	½	¾	0.37	0.55	6.5	8.5
21014	SSR-21	540	0.220	100	1 ½	50	¾	1.0	0.55	0.75	8.5	11.0
24014	SSR-24	610	0.300	125	1 ½	50	¾	1.0	0.55	0.75	10.5	14.5
28014	SSR-28	710	0.390	200	2	63	1.0	1.5	0.75	1.10	15.5	19.0
30014	SSR/C-30	762	0.460	200	2	63	1 ½	2.0	1.10	1.50	18.5	22.5
32014	SSR-32	820	0.530	250	2	63	1.5	2.0	1.10	1.50	20.0	25.0
36015	SSC-36	900	0.660	375	2	63	2.0	3.0	1.50	2.20	27.0	31.0
42220	SSC-42	1100	0.970	550	3	90	3.0	4.0	2.20	3.00	38.0	43.0
48215	SSC-48	1200	1.130	850	3	90	4.0	5 ½	3.00	4.12	50.0	56.0

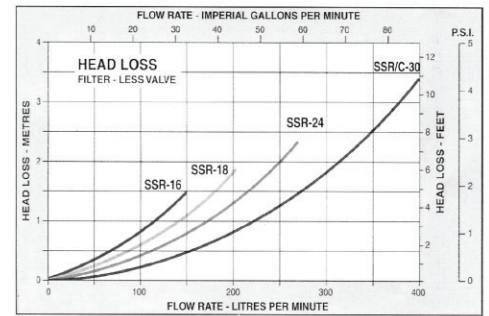
INSTALL/START-UP OF FILTER

1. Be sure correct amount of filter media sand is in tank and that all connections have been made and are secure.
2. Depress control valve handle and rotate to BACKWASH position. (To prevent damage to control valve seal, always depress handle before turning.)
3. Prime and start pump according to pump instructions (be sure all suction and return lines are open), allowing the filter tank to fill with water. Once water is flowing out of the waste line, run the pump for at least 1 minute. The initial back-washing of the filter is recommended to remove any impurities or fine sand particles in the sand media.
4. 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 and set valve to FILTER position and restart pump. The filter is now operating in the normal filter mode, filtering dirt particles from the pool water.
5. Adjust pool suction and return valves to achieve desired flow. Check system and filter for water leaks and tighten connections, bolts, and nuts, as required.
6. Note the initial pressure gauge reading when the filter is clean. (It will vary from pool to 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 1.5 bar, higher than the initial "clean" pressure you noted, it is time to backwash the filter (see BACKWASH under filter and control valve functions).

NOTE: During initial clean-up of the pool water it may be necessary to backwash frequently due to the unusually heavy initial dirt load in the water.

DIMENSION

TYPE	SSR-16	SSR-18	SSR-24	SSR/C-30
A	73	73	73	70
B	450	460	610	762
C	465	475	625	780
D	230	230	230	230
E	61	61	61	81
F	127	204	204	215
G	240	245	250	315
H	575	685	760	780
I	65	65	65	85
J	70	70	70	90
K	360	360	490	560
L	725	790	945	1100
M	-	-	-	-
N	-	-	-	-
X	300	350	380	400
Y	-	-	-	-
Z	-	-	-	-



ORDERING

TYPE	SSR-16	SSR-18	SSR-24	SSR/C-30
CODE	16014	18014	24014	30014
ST-COL	Blue	Blue	Blue	Blue
WIDTH	470	480	630	790
LENGTH	470	480	630	790
HEIGHT	590	700	790	810
WEIGHT	6.0	10.0	17.0	30.0

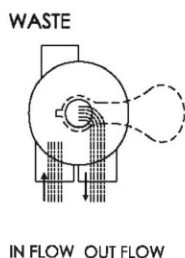
"SANDIA" HI-RATE SAND FILTER



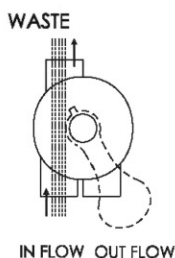
No.	Code	Descriptions
1	2010060070	ฝาเครื่องกรองทราย สีดำ / Top Lid
2	2010060069	โอริงฝาเครื่องกรอง / O'Ring Top Lid
3	2010060114	จุดระบายอากาศ / Air Bleed with O'Ring
4	2010060075	น็อตยึดฝากรอง / Bolt & Nut Size M8
5	2010060007-01	จุดปิดน็อตยึดฝากรอง / Plastic Corn
6	2010060007-02	จุดปิดน็อตยึดฝากรอง / Plastic Corn
7	2010060074	ท่ออากาศ / Air Tube
8	2010060085	กระจายน้ำ / Rose Distributor
9	2010060107	แกนกลางไลกรอง / Main Collector
10	2010016636	ฐานกลางไลกรอง / Center Collector
11	2010060104	ไลกรอง ขนาด 6 ซม. / Lateral Size 6 cm.
	2010060105	ไลกรอง ขนาด 12 ซม. / Lateral Size 12 cm.
12	2010060103	ฝาปิดไลกรอง / Lateral Cap
13		ยูเนียนเครื่องกรองขนาด 1.5" / ราคาสต็อก / Union Set Size 1.5"
		ยูเนียนเครื่องกรองขนาด 2" / ราคาสต็อก / Union Set Size 2"
14		หัวต่อยูเนียนเครื่องกรองขนาด 1.5" / ราคาสต็อก / Bulkhead Set Size 1.5"
		ยูเนียนเครื่องกรองขนาด 2" / ราคาสต็อก / Bulkhead Set Size 2"
15	2010060007-03	ชุดท่อปล่อยน้ำทิ้งขนาด 1.5" / ราคาสต็อก / สำหรับเครื่องกรองทราย ขนาด 42" - 48"
		Sand Drainage Plug Set Size 1.5" for 42" - 48"
16		ชุดท่อปล่อยน้ำทิ้งขนาด 1" / ราคาสต็อก / สำหรับเครื่องกรองทราย ขนาด 16" - 36"
		Sand Drainage Plug Set Size 1" for 16" - 36"
17		ประเก็น ยูเนียน ขนาด 1.5" / ราคาสต็อก
		ประเก็น ยูเนียน ขนาด 2" / ราคาสต็อก
		ประเก็น ยูเนียน ขนาด 3" / ราคาสต็อก
18		ประเก็น หน้าแปลน ขนาด 1.5" / ราคาสต็อก
		ประเก็น หน้าแปลน ขนาด 2" / ราคาสต็อก
		ประเก็น หน้าแปลน ขนาด 3" / ราคาสต็อก
	2010060115	ชุดไลกรอง ครอบชุด Size: 400 mm. (16")
	2010060099	ชุดไลกรอง ครอบชุด Size: 450 mm. (18")
		ชุดไลกรอง ครอบชุด Size: 500 mm. (21")
	2010060102	ชุดไลกรอง ครอบชุด Size: 600 mm. (24")
		ชุดไลกรอง ครอบชุด Size: 700 mm. (28")
	2010060098	ชุดไลกรอง ครอบชุด Size: 750 mm. (30")
		ชุดไลกรอง ครอบชุด Size: 800 mm. (32")
	2010060096	ชุดไลกรอง ครอบชุด Size: 900 mm. (36")
	2010060097	ชุดไลกรอง ครอบชุด Size: 1050 mm. (42")
	2010060109	ชุดไลกรอง ครอบชุด Size: 1200 mm. (48")

Valve Position	Function
FILTER	Normal Filtration and Vacuuming
BACKWASH	Cleaning Filter by reversing the flow
RINSE	Used after backwash to flush dirt from valve
WASTE	By-passes filter, used for vacuuming to waste or lowering water level
RECIRCULATE	By-passes filter for circulating water to pool
CLOSED	Shuts off all flow to filter or pool

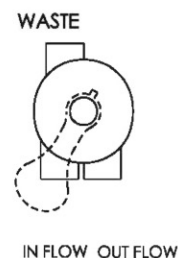
FILTER



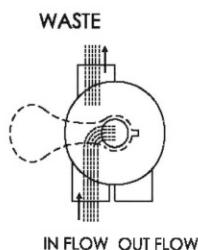
WASTE



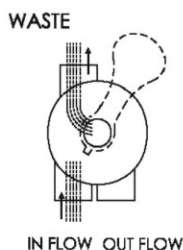
CLOSED



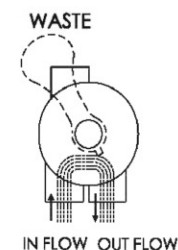
BACKWASH



RINSE



RECIRCULATE



GENERAL

1. Pipe tap boss provided for optional influent pressure gauge.
2. SERVICING VALVE(Stop pump, close gate valve in suction&discharge before proceeding):
 - a) Set handle in filter position.
 - b) Remove cover screws.
 - c) Lift cover and key assembly out.

TO ASSEMBLE:

1. Place valve key so that wedge opening is at TOP port (handle in Filter psn.). Flat edge of cover screw lug should align with flat edge of body screw lug.
2. Position cover O'Ring.
3. Secure assembly to body with cover screws. Tighten cover screws evenly and alternately. Do not over tighten.

FUNCTIONS OF VALVE POSITIONS

- ⚠ THIS FILTER OPERATES UNDER HIGH PRESSURE. WHEN ANY PART OF THE CIRCULATING SYSTEM (e.g., CLAMP, PUMP, FILTER, VALVES, ETC.) IS SERVICED, AIR CAN ENTER THE SYSTEM AND BECOME PRESSURIZED. PRESSURIZED AIR CAN CAUSE THE LID OR VALVE TO BE BLOWN OFF WHICH CAN RESULT IN SEVERE INJURY, DEATH, OR PROPERTY DAMAGE.
- ⚠ TURN PUMP OFF BEFORE CHANGING VALVE POSITION.
- ⚠ TO PREVENT DAMAGE TO THE PUMP AND FOR PROPER OPERATION OF THE SYSTEM, CLEAN PUMP STRAINER AND SKIMMER BASKETS REGULARLY.
- ⚠ DO NOT UNSCREW SCREWS OF FLANGE CLAMP WHILE PUMP IS RUNNING.