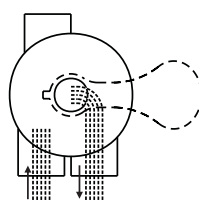


## FUNCTIONS OF VALVE POSITIONS

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

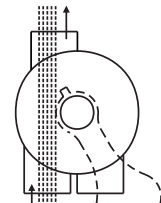
WASTE



IN FLOW OUT FLOW

### WASTE

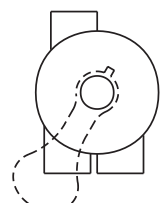
WASTE



IN FLOW OUT FLOW

### CLOSED

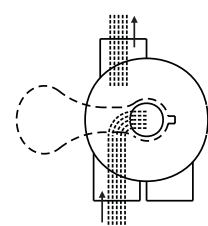
WASTE



IN FLOW OUT FLOW

### BACKWASH

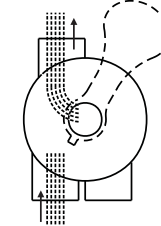
WASTE



IN FLOW OUT FLOW

### RINSE

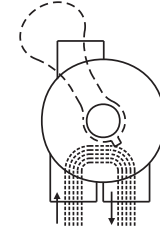
WASTE



IN FLOW OUT FLOW

### RECIRCULATE

WASTE



IN FLOW OUT FLOW

## 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.

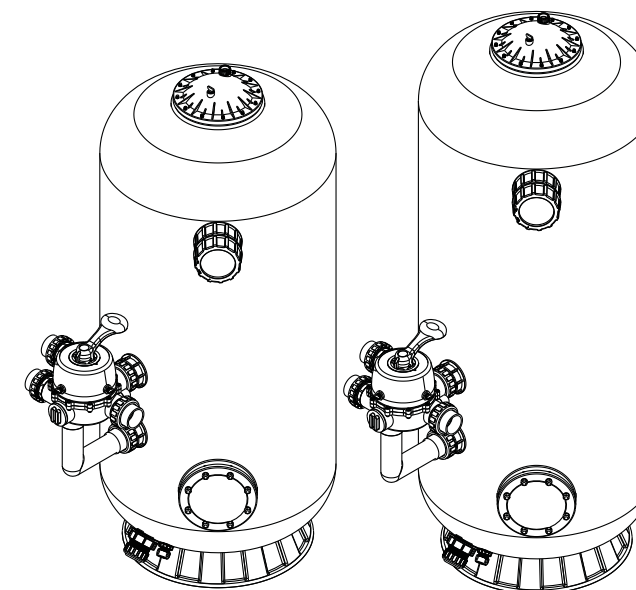
## TO ASSEMBLE:

1. Place valve key so that wedge opening is at TOP port (handle in Filter). 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 diagonally. Do not over-tighten.

## WARNING

- ⚠ 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.

Models: SDB700-1.0 / SDB800-1.0 / SDB900-1.0 / SDB1000-1.0  
SDB700-1.2 / SDB800-1.2 / SDB900-1.2 / SDB1000-1.2



## 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 a 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. It 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 the 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 set the control valve in the FILTER position, to resume normal filtering.

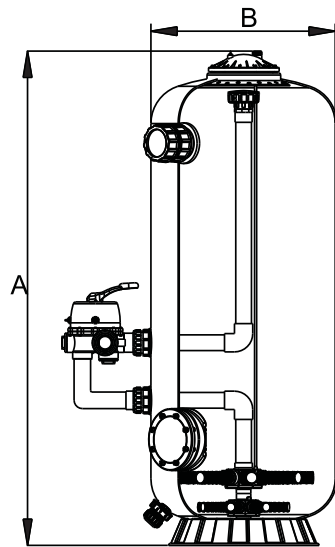
## INSTALLATION

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. Loosen flange clamp and remove filter control valve (if previously installed).
  - B. Cap internal pipe with plastic cap to prevent sand from entering it.
  - C. We recommend filling tank approximately 1/2 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. (Be sure center pipe remains centered in opening.) Sand Surface Should be leveled and should come to about the middle of the filter tank. Remove plastic cap from internal pipe.
3. Assemble filter control valve to filter tank.
  - A. Insert filter control valve (with O'ring in place) into the tank neck, ensuring the twelve bolts which is pre-embedded in the tank neck through the twelve hole around the valve, ensure that the center pipe slips into the hole in the bottom of the valve.
  - B. Put the twelve nuts and washers on each of the twelve bolts, then tighten all the nuts with wrench, ensuring that all nuts are tight.
  - C. Carefully screw pressure gauge (with O'ring in place) into the tapped hole in valve body. Do not over-tighten.
  - D. Connect pump to control valve opening marked PUMP.

4. Make return to pool pipe connection to control valve opening marked RETURN and complete other necessary plumbing connections, suction lines to pump, waste, etc.
5. Make electrical connections to pump per pump instructions.
6. To prevent water leakage, be sure all pipe connections are tight.

### MAIN DIMENSION



DIMENSION TABLE

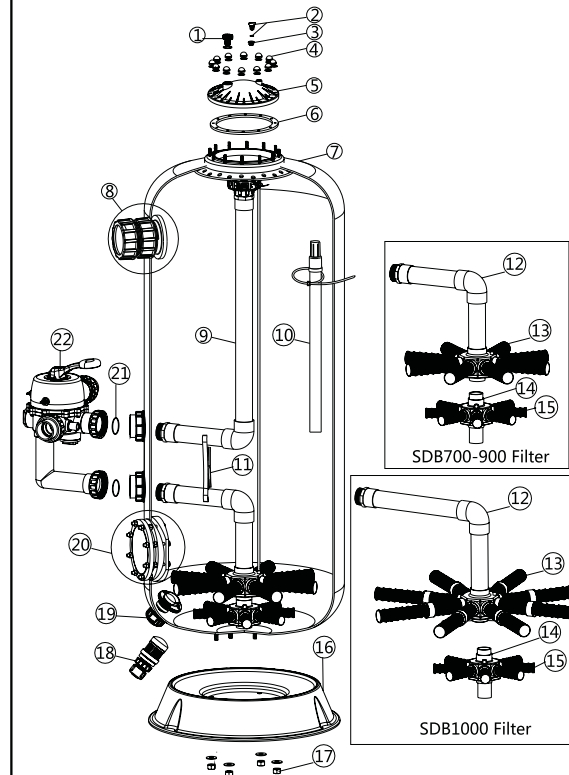
Model	High mm A	Diameter mm B	Valve Inch	Sand kg
SDB700-1.0	1672	700	2"	580
SDB800-1.0	1702	800	2"	769
SDB900-1.0	1735	900	2"	957
SDB1000-1.0	1813	1000	2"	1204
SDB700-1.2	1872	700	2"	696
SDB800-1.2	1902	800	2"	914
SDB900-1.2	1935	900	2"	1146
SDB1000-1.2	2013	1000	2"	1436

### 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, 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.**

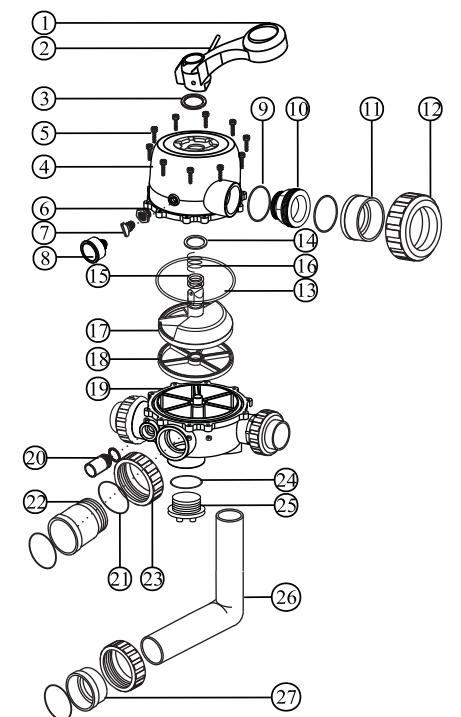
### REPLACEMENT PARTS OF FILTER



Item	Part No.	Description English	Qty
1	89010701	Air Release Valve	1
2	89021703	Drain Plug with O'Ring	1
3	01111048	Connector for Pressure Gauge	1
4	89010601	03013003 M8 Nut*12Pc:+03012003 M8 Washer*12Pc:	1
5	01172005	Lid (Grey)	1
6	02011126	Gasket	1
7	89013801	SDB700-1.0M Filter Tank	1
	89013815	SDB700-1.2M Filter Tank	1
	89013802	SDB800-1.0M Filter Tank	1
	89013816	SDB800-1.2M Filter Tank	1
	89013803	SDB900-1.0M Filter Tank	1
	89013817	SDB900-1.2M Filter Tank	1
	89013804	SDB1000-1.0M Filter Tank	1
	89013818	SDB1000-1.2M Filter Tank	1
8	89012842	Sight Glass (for SDB Series Filters)	1
	89013805	SDB700-1M Top part of the inner tank system	1
	89013819	SDB700-1.2M Top part of the inner tank system	1
	89013806	SDB800-1M Top part of the inner tank system	1
	89013820	SDB800-1.2M Top part of the inner tank system	1
	89013807	SDB900-1M Top part of the inner tank system	1
	89013821	SDB900-1.2M Top part of the inner tank system	1
	89013808	SDB1000-1M Top part of the inner tank system	1
	89013822	SDB1000-1.2M Top part of the inner tank system	1
9	89013813	1.0M Filter Air Vent Pipe	1
	89013827	1.2M Filter Air Vent Pipe	1
10	01111090	2.0" Tank System Support	1
	89013809	SDB700-1.0M Bottom part of the inner tank system	1
	89013823	SDB700-1.2M Bottom part of the inner tank system	1
	89013810	SDB800-1.0M Bottom part of the inner tank system	1
	89013824	SDB800-1.2M Bottom part of the inner tank system	1
	89013811	SDB900-1.0M Bottom part of the inner tank system	1
	89013825	SDB900-1.2M Bottom part of the inner tank system	1
	89013812	SDB1000-1.0M Bottom part of the inner tank system	1
	89013826	SDB1000-1.2M Bottom part of the inner tank system	1
11	01172010	Laterals (185mm) for SDB700 SDB800 Filter	8
	01172011	Laterals (233mm) for SDB900 Filter	8
12	89010613	Laterals (185mm+129mm)	8
	89013828	1.5" Lower Filtration System	1
13	01172007	Laterals (115mm)	8
	01161066	Filter Base for SDB700 Filter	1
	01161067	Filter Base for SDB800 Filter	1
	01161068	Filter Base for SDB900 Filter	1
	01161069	Filter Base for SDB1000 Filter	1
14	89013829	03013019 M12 Nut*4Pc:+03012014 M12 Washer*4Pc:	1
15	89010107	Water Drain Set	1
	89012807	1.5" Sand Drain Set	1
16	89013814	Manhole for SDB Filter	1
	02020016	O-Ring	1
17	88280813	2.0" Side Mount Valve	1

### REPLACEMENT PARTS OF MULTIPORT VALVE

Item	Part No.	Product Description	Qty
1	01013003	Handle (Big)	1
2	03018008	Pin for Handle	1
3	01181027	Washer for Handle	1
4	01013022	2.0" Side Mount Valve Rotundity Lid (Black)	1
5	89280301	M6*32 Screw with Nut	10
6	01111048	Connector for Pressure Gauge/Stopper	1
7	89021303	Drain Plug with O'Ring	1
8	06011029	Oil Pressure Gauge With O-Ring (40Psi)	1
9	02020016	O-Ring for 2.0" Union	8
10	01013031	2.0" Connector (Black)	3
11	01171154	2.0" Union (A/E)	3
12	01051032	2.0" Union Nut (Black)	3
13	02011009	O-Ring for 2.0" Valve Lid	1
14	01181002	Washer for spring	1
15	02011022	O-Ring for 2.0" Valve Rotor	2
16	03014014	Spring	1
17	01021002	2.0" Valve Rotor	1
18	02311003	Spider Gasket	1
19	01013026	2.0" Side Mount Valve Bottom Body (Black)	1
20	89280104	Sight Glass With O-Ring	1
21	02011011	O-Ring for Union Tale	1
22	01013099	2.0" Union Tale (Black)	1
23	01013034	2.0" Union Nut (Black)	2
24	02020017	O-Ring for Plug	1
25	01013101	2.0" Side Mount Valve Plug (Black)	2
26	01013118	2.0" Elbow Tube (Black) 183mm	1
27	01171035	2.0" Union Adaptor (Metric)	1

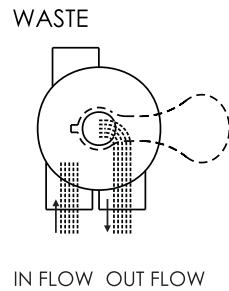




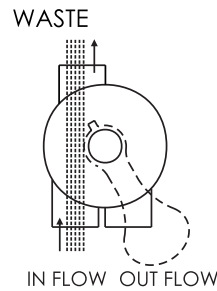
### FUNCTIONS OF VALVE POSITIONS

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

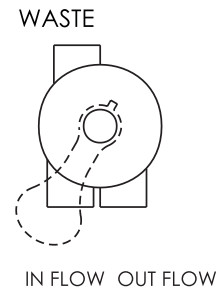
FILTER



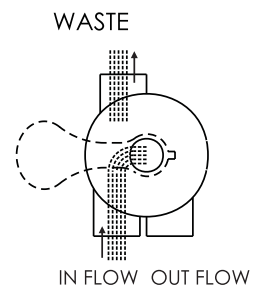
WASTE



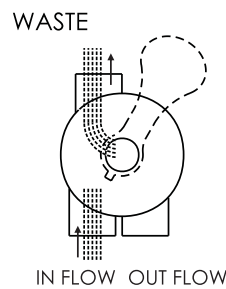
CLOSED



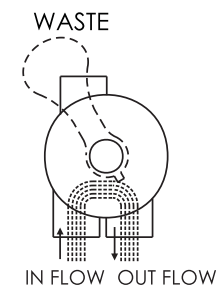
BACKWASH



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.

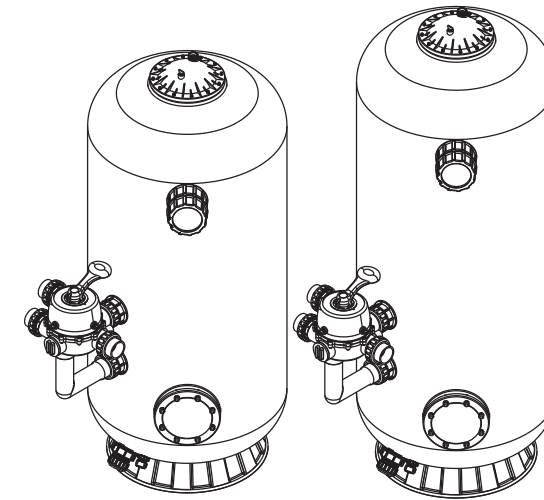
#### TO ASSEMBLE:

- 1) Place valve key so that wedge opening is at TOP port (handle in Filter). 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 diagonally. Do not over-tighten.

#### WARNING

- ⚠ 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.

**Models: SDB900(C)-1.0 / SDB1000(C)-1.0  
SDB900(C)-1.2 / SDB1000(C)-1.2**



#### 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 a 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. It 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 the 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 set the control valve in the FILTER position, to resume normal filtering.

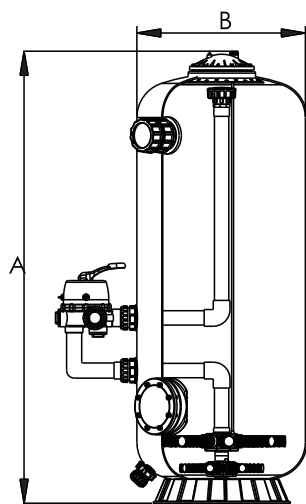
#### INSTALLATION

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) Loosen flange clamp and remove filter control valve (if previously installed).
  - B) Cap internal pipe with plastic cap to prevent sand from entering it.
  - C) We recommend filling tank approximately 1/2 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. (Be sure center pipe remains centered in opening.) Sand Surface Should be leveled and should come to about the middle of the filter tank. Remove plastic cap from internal pipe.

- 3) Assemble filter control valve to filter tank.
  - A) Insert filter control valve (with O'ring in place) into the tank neck, ensuring the twelve bolts which is pre-embedded in the tank neck through the twelve hole around the valve, ensure that the center pipe slips into the hole in the bottom of the valve.
  - B) Put the twelve nuts and washers on each of the twelve bolts, then tighten all the nuts with wrench, ensuring that all nuts are tight.
  - C) Carefully screw pressure gauge (with O'ring in place) into the tapped hole in valve body. Do not over-tighten.
  - D) Connect pump to control valve opening marked PUMP.
- 4) Make return to pool pipe connection to control valve opening marked RETURN and complete other necessary plumbing connections, suction lines to pump, waste, etc.
- 5) Make electrical connections to pump per pump instructions.
- 6) To prevent water leakage, be sure all pipe connections are tight.

### MAIN DIMENSION



DIMENSION TABLE

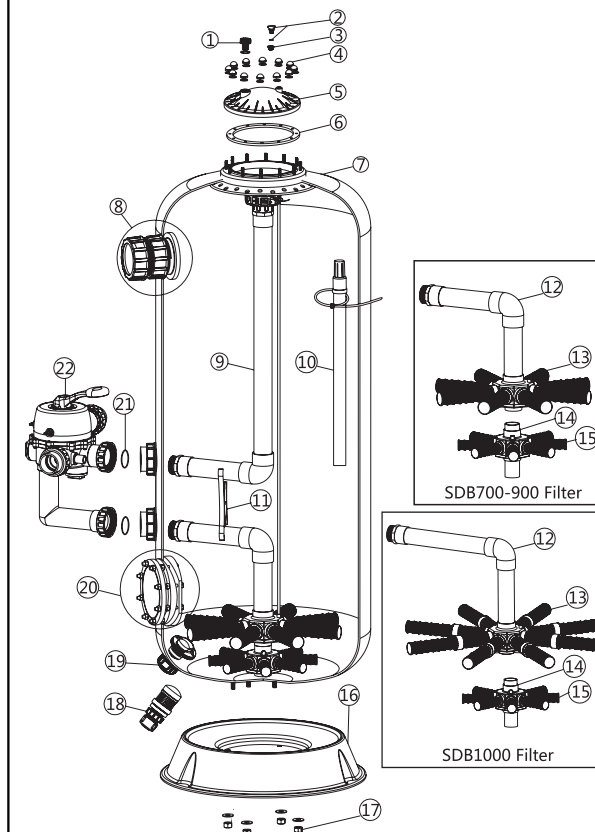
Model	High (mm) A	Diameter (mm) B	Valve (Inch)	Sand (Kg)
SDB900(C)-1.0	1735	900	2.5"	957
SDB1000(C)-1.0	1813	1000	2.5"	1204
SDB900(C)-1.2	1935	900	2.5"	1146
SDB1000(C)-1.2	2013	1000	2.5"	1436

### 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, 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.**

### REPLACEMENT PARTS OF FILTER



Item No.	Part No.	Product Description	Qty
1	89010701	Air Release Valve	1
2	89021703	Drain Plug with O'Ring	1
3	01111048	Connector for Pressure Gauge	1
4	89010601	03013003 M8 Nut*12Pc;+03012003 M8 Washer*12Pc;	1
5	01172005	Lid (Grey)	1
6	02011126	Gasket	1
7	89013803	SDB900-1.0M Filter Tank	1
	89013817	SDB900-1.2M Filter Tank	1
	89013804	SDB1000-1.0M Filter Tank	1
	89013818	SDB1000-1.2M Filter Tank	1
8	89012842	Sight Glass (for SDB Series Filters)	1
9	89013834	SDB900(C)-1M Top part of the inner tank system	1
	89013835	SDB900(C)-1.2M Top part of the inner tank system	1
	89013836	SDB1000(C)-1M Top part of the inner tank system	1
	89013837	SDB1000(C)-1.2M Top part of the inner tank system	1
10	89013813	1.0M Filter Air Vent Pipe	1
	89013827	1.2M Filter Air Vent Pipe	1
11	01110030	2.5" Tank System Support	1
12	89013838	SDB900-1.0M Bottom part of the inner tank system	1
	89013839	SDB900-1.2M Bottom part of the inner tank system	1
	89013840	SDB1000-1.0M Bottom part of the inner tank system	1
	89013841	SDB1000-1.2M Bottom part of the inner tank system	1
13	01172011	Laterals (233mm) for SDB900 Filter	8
	89010613	Laterals(185mm+129mm)	8
14	89013828	1.5" Lower Filtration System	1
15	01172007	Laterals(115mm)	8
16	01161068	Filter Base for SDB900 Filter	1
	01161069	Filter Base for SDB1000 Filter	1
17	89013829	03013019 M12 Nut*4Pc;+03012014 M12 Washer*4Pc;	1
18	89010107	Water Drain Set	1
19	89012807	2.0" Sand Drain Set	1
20	89013814	Manhole for SDB Filter	1
21	02100016	O-Ring	1
22	89280815	2.0" Side Mount Valve	1

### PARTS OF VALVE

Item No.	Part No.	Product Description	Qty
1	01013003	Handle (Big)	1
2	03018008	Pin for Handle	1
3	01181027	Washer for Handle	1
4	89281204	M6*33 Screw with Nut	12
5	01021129	2.5" Side Mount Valve Standard Lid (Black)	1
6	02010228	O-Ring for 2.5" Valve Lid	1
7	02011022	O-Ring for 2.5" Valve Rotor	2
8	01181002	Washer for Spring	1
9	03014025	Spring for 2.5" Side Mount Valve	1
10	89280806	2.5" Valve Rotor with Spider Gasket	1
11	01021128	2.5" Side Mount Valve Bottom Body (Black)	1
12	06011032	Oil Pressure Gauge With O-ring (40psi)	1
13	02020053	O-Ring for 2.5" Union	7
14	01171159	2.5" Union (Black)	2
15	01150180	2.5" PVC Tube 90mm	2
16	01150181	2.5" Elbow Tube 183mm	1
17	01150180	2.5" PVC Tube 270mm	1
18	01013147	2.5" Connector (black)	3
19	01171158	1.5" Union (A/E)(black)	3
20	02010043	O-Ring for Union Adaptor	2
21	01013142	2.5" Side Mount Valve Plug (Black)	2
22	89280104	Sight Glass With O-Ring	1
23	01111048	Connector for Pressure Gauge/Stopper (Black)	1
24	89021303	Drain Plug with O'Ring (Black)	1
25	01013143	2.5" Connector(Black)	3

