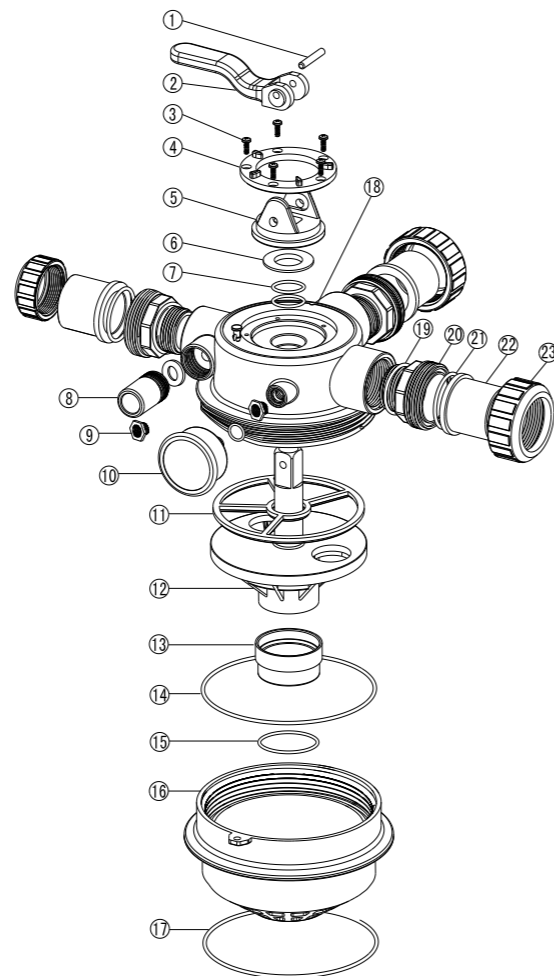


1.5" VALVE REPLACEMENT PARTS

Key No.	Part No.	Product Description	Qty
1	03018009	Pin for handle	1
2	01013036	Handle for 1.5" 4-way Valve	1
3	03011003	Ø4*12 Self -drilling screw	5
4	01013040	Pressing Ring	1
5	01013041	Fixation for 1.5" 4-way Valve Handle	1
6	01181003	Washer for 1.5" 4-way Valve Handle	1
7	02011017	O-Ring for Rotor	2
8	89280104	Sight Glass with O-Ring	1
9	01111048	Connector for Pressure Gauge /Stopper	1
10	06021013	Plastic pressure gauge With O-Ring(40Psi)	1
11	02311005	Spider Gasket	1
12	01013098	Lid for for 1.5" 4-way Valve Rotor	1
	01021003	Rotor for 1.5" 4-way Valve	1
13	01013039	1.5" 4-way Valve Rotor Connector	1
14	02011021	O-Ring for Rotor Connector	1
15	02011018	O-Ring	1
16	01013038	Base for 1.5" 4-way Valve (Clamp)	1
17	02011027	O-Ring for 1.5" 4-way Valve (Thread)	1
	02011028	O-Ring for 1.5" 4-way Valve (Clamp)	1
18	89281301	1.5" 4-way Valve Body	1
19	02020013	O-Ring for 1.5" Connector	3
20	01013015	1.5" Connector (black)	3
21	02011003	O-Ring for 1.5" Union	3
22	01171153	1.5" Union (A/E)	2
23	01013017	1.5" Union Nut (black)	3



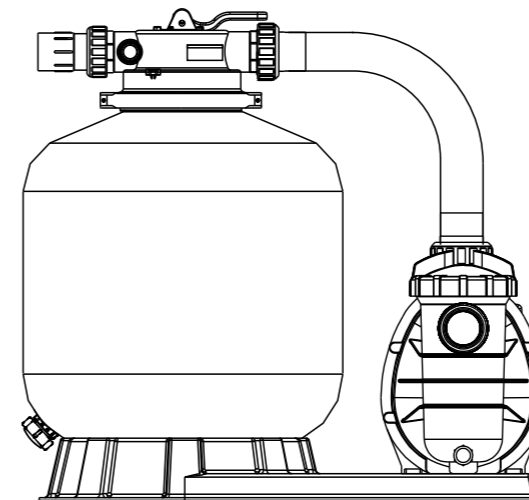
Valve Position	Function
FILTER	Normal Filtration and Vacuuming
BACKWASH	Cleaning Filter by reversing the flow
RINSE	Used after backwash to flush dirt from valve
CLOSED	Shuts off all flow to filter or pool

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.

FSP350-4W / FSP400-4W / FSP450-4W / FSP500-4W / FSP650-4W

**FILTER & PUMP COMBO**  
Installation & Operating Instruction



INSTALLATION

- \* Install filtration system including pump, filter tank and multiport valve.
- \* The filter system should be installed as close as possible to the swimming pool and preferably at a level of 0.50 metres below the surface of the water in the swimming pool. Make sure there is drainage available at the place where the filter is to be installed.
- \* PUMP
  - 1) Only qualified, licensed personnel should install pump and wiring.
  - 2) Electrical Contractors Please Note: All 220 volt 50Hz pump must be wired to the main power supply through an approved and correctly rated contractor.
  - 3) Allow for gate valve in suction piping.
  - 4) Pump suction and discharge connections have moulded in thread stops, do not try to screw pipe in beyond these stops.
- \* FILTER TANK and MULTIPORT VALVE
  - 1) Loading the sand media. Filter sand media is loaded through the top opening of the filter.
    - a) Loosen the plastic clamps from tank neck.
    - 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.
  - 2) Assemble filter control valve to filter tank.
    - a) Insert filter control valve (with O-ring in place) into the tank neck, taking care that the center pipe slips into the hole in the bottom of the valve.
    - b) Place two plastic clamps around valve flange and tank neck and tighten just enough so that the valve may be rotated on tank for final positioning.
    - c) Carefully screw pressure gauge (with O-ring in place) into tapped hole in valve body. Do not over-tighten.
    - d) Connect pump to control valve opening marked PUMP with hose. After connections are made, tighten clamps with screwdriver, tapping around clamp with screwdriver handle to help seat valve flange clamp.
  - 3) Make return to pool pipe connection to control valve opening marked RETURN and complete other necessary plumbing connections, suction lines to pump, waste, etc.
  - 4) To prevent water leakage, be sure all pipe connections are tight.

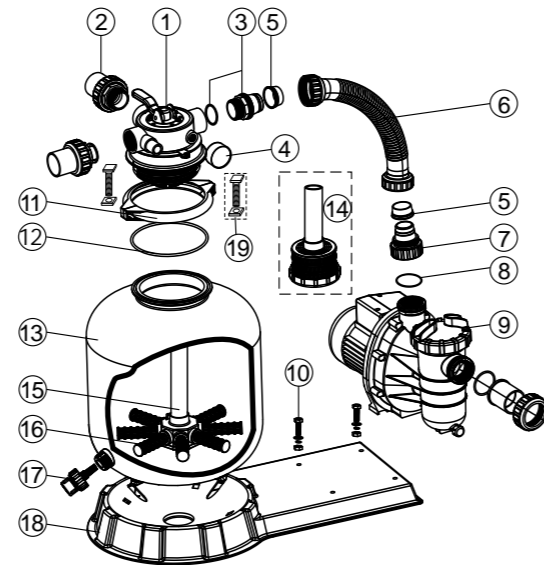
### INSTALL/START-UP OF FILTRATION

- 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. Never run pump dry! Running pump dry may damage seals, causing leakage and flooding! Fill pump with water before starting motor. (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

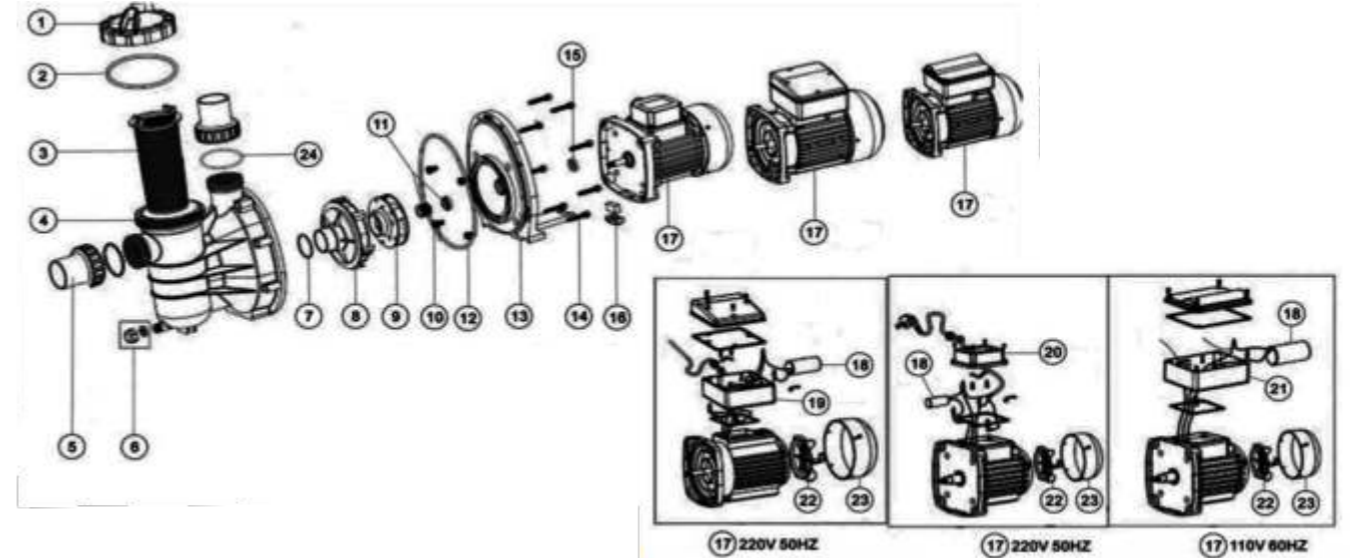
Key No.	Part No.	Description	Qty
1*	88281205	1.5"-4Way Top Mount Valve (Black/ White Colour)	1
2*	89280102	1.5" Union Set With O-Ring (Black/ White Colour)	1
3	89030204	Hose adaptor with O-Ring	1
4	06021001	Plastic Pressure Gauge with O-Ring (35psi)	1
4	01111048	Connector for pressure gauge/stopper	1
5	02011026	Sleeve for Hose	2
6	89030301	FSP350-4W Plastic Hose with Nut	1
6	89030401	FSP400-4W Plastic hose with Nut	1
6	89030501	FSP450-4W Plastic hose with Nut	1
6	89030601	FSP500-4W Plastic hose with Nut	1
6	89030701	FSP650-4W Plastic hose with Nut	1
7	01013049	Hose adaptor with nut	1
8	02011104	O-Ring for 1.5" Union	1
9	88022401	Pump 0.20hp, 220V/50Hz, Single Phase	1
9	88022402	Pump 0.33hp, 220V/50Hz, Single Phase	1
9	88022403	Pump 0.50hp, 220V/50Hz, Single Phase	1
9	88022404	Pump 0.75hp, 220V/50Hz, Single Phase	1
9	88022405	Pump 1.00hp, 220V/50Hz, Single Phase	1
10	89032001	Pump Assembly Screw	2
11	01271010	Clamp Lock	2
12	02011134	O-Ring for Filter Neck	1
13	01331005	P350 Filter Tank	1
13	01331006	P400 Filter tank	1
13	01331007	SP/P450 Filter tank	1
13	01331008	SP/P500 Filter tank	1
13	01331010	SP/P650 Filter tank	1
14	89011602	P350 Lateral Assembly with Center Pipe	1
15	89011603	P400 Lateral Assembly with Center Pipe	1
15	89011604	P450 Lateral Assembly with Center Pipe	1
15	89011605	P500 Lateral Assembly with Center Pipe	1
15	89011606	P650 Lateral Assembly with Center Pipe	1
16	01172007	Laterals(115mm)	8
16	01172008	Laterals(126mm)	8
17	89011601	Water Drain Set	1
18	01111056	FSP/F350-4-6W Combo Base	1
18	01111053	FSP/F400-6W - FSP/F650-6W Combo base	1
19	89010119	M6*50 Screws With Nut	2



Notes:

- 1\* 88281205B is 1.5"-4Way Top Mount Valve in Black Colour
- 1\* 88281205W is 1.5"-4Way Top Mount Valve in White Colour
- 2\* 89280102B is 1.5" Union Set With O-Ring in Black Colour
- 2\* 89280102W is 1.5" Union Set With O-Ring in White Colour

### SS PUMP REPLACEMENT PARTS



Key No.	Part No.	Description	Qty	Key No.	Part No.	Description	Qty
1	01201031	Transparent Lid	1	17	89022201	Motor SD/SQ/SS/ST020(220V/60HZ)	1
2	02010247	O-Ring for Lid	1	17	89022202	Motor SD/SQ/SS/ST033(220V/60HZ)	1
3	01112051	Basket for SS Pump	1	17	89022203	Motor SD/SQ/SS/ST050(220V/60HZ)	1
4	01021064	SS Pump Pre-Filter	1	17	89022204	Motor SD/SQ/SS/ST075(220V/60HZ)	1
5*	89280105	1.5" Union (Black/ White Colour)	2	17	89022205	Motor SD/SQ/SS/ST100(220V/60HZ)	1
6	89022402	Drain Plug With O'Ring	1	17	89022206	Motor SD/SQ/SS/ST120(220V/60HZ)	1
7	02011004	O-Ring for Diffuser	1	17	89022305	Motor SD/SQ/SS/ST020(110V/60HZ)	1
8	01111014	Diffuser	1	17	89022306	Motor SD/SQ/SS/ST033(110V/60HZ)	1
9	01311014	Impeller SS120(220V/50HZ)	1	17	89022301	Motor SD/SQ/SS/ST050(110V/60HZ)	1
9	01311015	Impeller SD020/SD50/SQ20/SQ50/SS20/SS50/ST20/ST50	1	17	89022302	Motor SD/SQ/SS/ST075(110V/60HZ)	1
9	01311016	Impeller SD33/SD75/SQ33/SQ75/SS33/SS75/ST33/ST75	1	17	89022303	Motor SD/SQ/SS/ST100(110V/60HZ)	1
9	01311017	Impeller SD050/SD100/SQ050/SQ100/SS050/SS100/ST050	1	17	89022304	Motor SD/SQ/SS/ST120(110V/60HZ)	1
9	01311018	Impeller SD075/SD120/SQ075/SQ120/SS075/SS120/ST075	1	18	04016028	Capacitor for SS/SD/SQ/ST050 Pump 110V	1
9	01311019	Impeller SD100/SQ100/SS100/ST100(220V/50HZ)	1	18	04016019	Capacitor for SC050 & SS/SD/SQ/ST075 Pump 110V	1
9	01311023	Impeller SD020/SQ020/SS020/ST020(220V,110V/60HZ)	1	18	04016021	Capacitor for SC075 & SS/SD/SQ/ST100-124 Pump 110V	1
9	01311024	Impeller SD033/SQ033/SS033/ST033(220V,110V/60HZ)	1	18	04016009	Capacitor for SS/SD/SQ/SP/ST050 Pump	1
10	89022403	M8 x 16 Screw with Washer	4	18	04016010	Capacitor for SS/SD/SQ/SP/ST075 & SC050 Pump	1
11	04015033	1/2" Mechanical Seal	1	18	04016012	Capacitor for SS/SD/SQ/SP/ST100-120	1
12	02011090	O-Ring for Flange	1	18	04016032	Capacitor for SS/SD/SQ/ST020 Pump 110V	1
13	01021065	SS Pump Flange	1	18	04016033	Capacitor for SS/SD/SQ/ST033 Pump 110V	1
14	03011035	M6 x 30 Screw	8	18	04016030	Capacitor for SS/SD/SQ/ST020 AMU020P/TP(50/60Hz)	1
15	02011156	Motor Slinger	1	18	04016031	Capacitor for SS/SD/SQ/ST033 Pump	1
16	89022404	Motor Support	1	19	89022112	Cable Box for SD,SQ,SP,ST050-120 Pump	1
17	89022109	Motor SD020/SQ020/SS020/ST020(220V/50HZ)	1	20	89022111	Cable Box for SQ/ST/SD020-033, SS020-SS030 Pump	1
17	89022110	Motor SD033 (220V/50Hz)	1	21	89021505	Cable Box for SA/ ST/ SD 110V	1
17	89022105	Motor SD050/SQ050/SS050/ST050(220V/50HZ)	1	22	01031027	Cooling Fan for SS/SD/SQ/ST050-SS/SD/SQ/ST120 Pump	1
17	89022106	Motor SD075/SQ075/SS075/ST075(220V/50HZ)	1	22	01031026	Cooling Fan for SS/SD/SQ/ST020-SS/SD/SQ/ST030 Pump	1
17	89022107	Motor SD100/SQ100/SS100/ST100(220V/50HZ)	1	23	01031011	Fan Cover for SS/SD/SQ/ST020-SS/SD/SQ/ST030 Pump	1
17	89022108	Motor SD120/SQ120/SS120/ST120(220V/50HZ)	1	23	01031010	Fan Cover for SQ/SP/SS/SD/ST050-SQ/SP/SS/SD/ST120	1
				24	02011104	O-Ring for 1.5" Union	2

- Notes: 5\* 89280105B is 1.5" Union in Black Colour
- 5\* 89280105W is 1.5" Union in White Colour