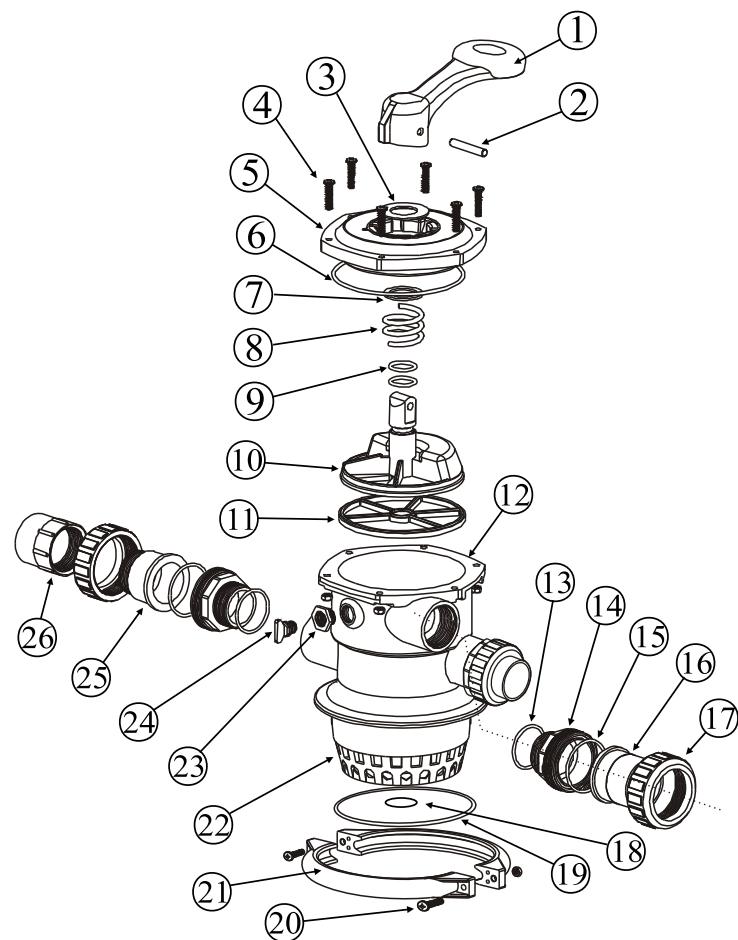


EM-MV40B VALVE REPLACEMENT PARTS

Item	Description	Part No
1	Handle	MPV-01-019
2	Pin,handle	MPV-01W-1
3	Washer	MPV-01-006
4	Bolt with nut, lid	MPV-01W-02-1 MPV-01W-02-2
5	Lid assy	MPV-01-004-1
6	O'ring,lid	MPV-01W-03
7	Washer	MPV-01-007
8	Spring	MPV-01W-04
9	O' ring,rotor	MPV-01W-05
10	Rotor	MPV-01-005
11	Gasket,spider	MPV-01-015
12	Body-diffuser assy	MPV-01-001
13	O'ring,bulkhead	MPV-01W-06
14	Bulkhead fitting	MPV-03-004
15	O' ring,bulkhead	MPV-01W-7
16	Adaptor,bulkhead	MPV-01-010
17	Nut,bulkhead	MPV-01-009
18	O' ring,standpipe	MPV-01W-8
19	O' ring,filter	MPV-01W-9B
20	Bolt with nut, clamp	MPV-01W-10-1 MPV-01W-10-2
21	Flange clamp	FT-01-003
22	Overdrain,diffuser	MPV-01-012
23	Nut,plug	MPV-01-014
24	Plug with o'ring	CP-01W-05 CP-01-013
25	Sight glass	MPV-01-017
26	Tricky set	MPV-01-018



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

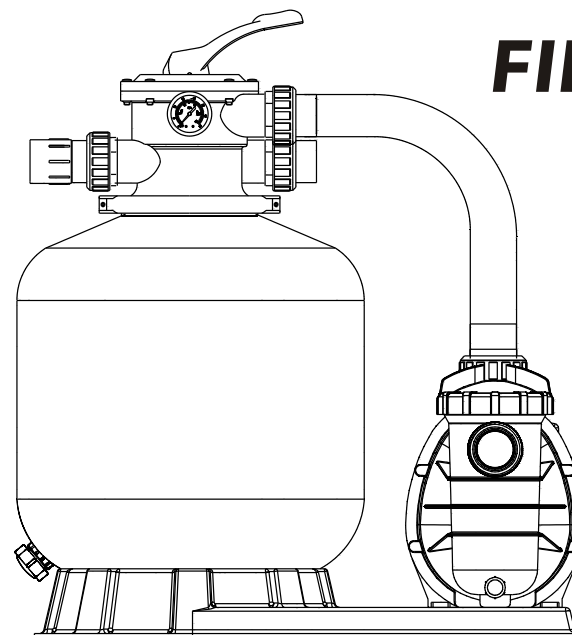
WARNING

- ⚠ 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.

FSF350-6W,FSF400-6W,FSF450-6W

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 trough 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.

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).

Item	Part No.	Description
1	MPV-01A	Valve
2	010104	O'ring
3	010107	Flange clamp
4	020108	Screw
	020107	Nut
5	0101054	V450 Filter tank
6	0101013	Lateral assembly With center pipe
7	010113	Lateral
8	0105061	Under drain
9	010106	Filter base
10	010507	Hexagon screw
	010508	Washer
	010509	Spring washer
	010510	Hexagon nut
11	SS050	Pump
12	0105133	Hose

Item	Part No.	Description	Item	Part No.	Description	Item	Part No.	Description
1	031101	Lid assembly	18	031109	Flange	22	030226	Cover for moter
2	031111	Seal o'ring	19	031117	Screw with washer	23	030144	Screw for cover
3	031102	Handle		030209	Irdome	24	031116	Washer for slip
4	031103	Handle		030210	Cover for irdome	25	031110	Slip
5	031105	Pump body		030128	Nut for irdome	26	030418	Cover for moter
6	030236	O'ring		030129	Cable placement code		030408	Irdome
7	02012101	Union head(Φ 48mm)		030211	Capacitance(0.2HP)		030128	Nut for irdome
	02012102	Union head(Φ 50mm)		030212	Capacitance(0.33HP)		030409	Waterproof plug for cable
8	020140	Nut		030213	Capacitance(0.75HP)		030410	Screw for irdome
9	031104	Drain cover		030221	Screw		030129	Cable placement code
10	031112	Washer	20	030132	Screw for irdome	27	030133	Screw for cable placement code
11	020118	O'ring for diffuser		030222	Washer		030411	Capacitance(1.0HP)
12	031108	Diffuser		030135	Earth cable		030412	Capacitance(1.2HP)
13	031106	Impeller(0.2HP)		030136	Safety pressing cable nut		030413	Safety pressing cable nut
	0304212	Impeller(0.33HP)		030224	Washer for the cover of irdome		030137	Belt
	0304213	Impeller(0.5HP)		030225	Washer for irdome		030135	Earth cable
	0304214	Impeller(0.75HP)		030131	Waterproof plug for cable		030414	Cable
	0311061	Impeller(1.0HP)		030137	Belt		030416	Waterproof washer for the cover of irdome
	0304063	Copper nut		030141	Cable			
14	031113	O'ring for flange	21	030422	Motor(0.5HP)			
15	031114	Screw		030423	Motor(0.75HP)			
16	031115	O'ring		030424	Motor(1.0HP-1.2HP)			
17	030233	Shaft seal		030230	Fan for motor			

NOTICE: Tighten trap cover by hand only .Pump should prime now. Priming time will depend on vertical length of suction lift and horizontal length of suction piping.