

hidrotermal[®]

Filtration Combo Series

VC Series



USER MANUAL

1. Fiberglass Filter Parameters

Model	Filter Model	Pump Model	Valve Connectio		0.5-0.8mm Sand Weight	Flow Rate
HT-VC400-6W	HT-V400	Hidro-BPS050	1.5	50mm	35Kg	8m ³ /h
HT-VC450-6W	HT-V450	Hidro-BPS050	1.5	50mm	45Kg	10m ³ /h
HT-VC525-6W	HT-V525	Hidro-BPS075	1.5	50mm	85Kg	12m ³ /h
HT-VC625-6W	HT-V625	Hidro-BPS100	1.5	50mm	150Kg	16m ³ /h

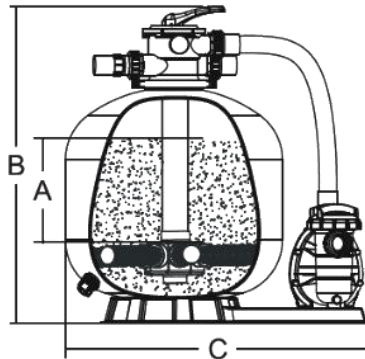


Figure 1

2. 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 50 HZ 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 moulder in thread stops, do not try to screw pipe in beyond these stops.

FILTER TANK AND MULTIPOINT 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. 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.



3. Filter's Start-Up

1. Make sure the correct amount of filter sand is in tank and that all connections have been correctly made and are secured.
2. Push the down control valve handle and rotate to BACKWASH position. (To prevent damage to the control valve seal, always push down the handle before turning.)
3. Start the pump according to the pump manual. Never run pump dry! Running pump dry may damage seals, causing leakage and flooding! (Make sure all the suction and return lines are opened), allowing the filter tank to fill in with water. Once the water is flowing out it removes any fine sand particles and impurities from the sand media.
4. Stop the pump and set valve to the RINSE position. Start the pump and operate for 1 minute until water is clear. Stop the pump and set the valve to the FILTER position and then restart the pump. The filter is now operating at the normal filtering mode, removing dirt particles from the pool water.
- 5) Adjust the pool suction and the return valves to achieve desired flow. Check the system and the filter for water leaks and tighten the connections, bolts, nuts, as required.
6. Acknowledge the initial pressure gauge reading when the filter is clean. (It will vary from each pool depending on 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 noticed, then 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.

4. Fiberglass Filter Structure

1) Filter Replacement Parts

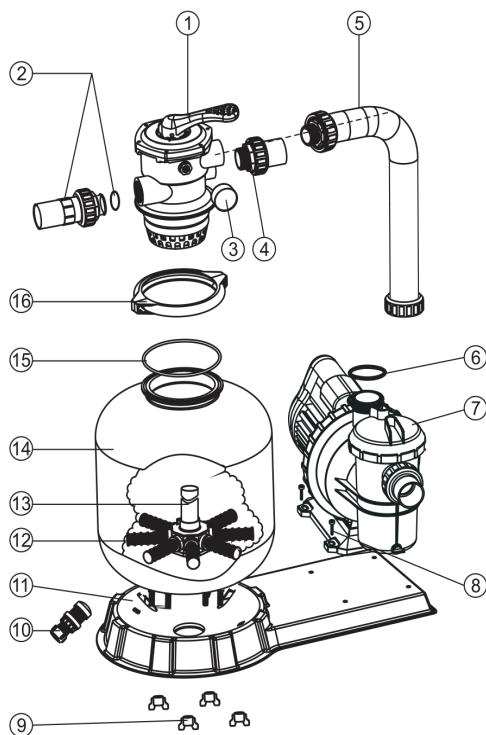


Figure 2

Item	Product Description
1	1.5" Top Mount Valve
2	1.5" Union with Sight Glass, O-ring
3	Oil Pressure Gauge with O-ring(40Psi)
	Connector for Pressure Gauge
4	1.5" Union set with O-ring
5	Plastic Hose with Nut
6	O-ring for Pump
7	Pump
8	Pump Assembly Screw
9	Fastener for Filter Base
10	Water Drain Set
11	Combo Base
12	Laterals (126mm)
13	Lateral Assembly with center Pipe
14	Filter Tank
15	O-ring for Filter Neck
16	M6*50 Screw With Nut
	Clamp Lock

2) Pump Replacement Parts

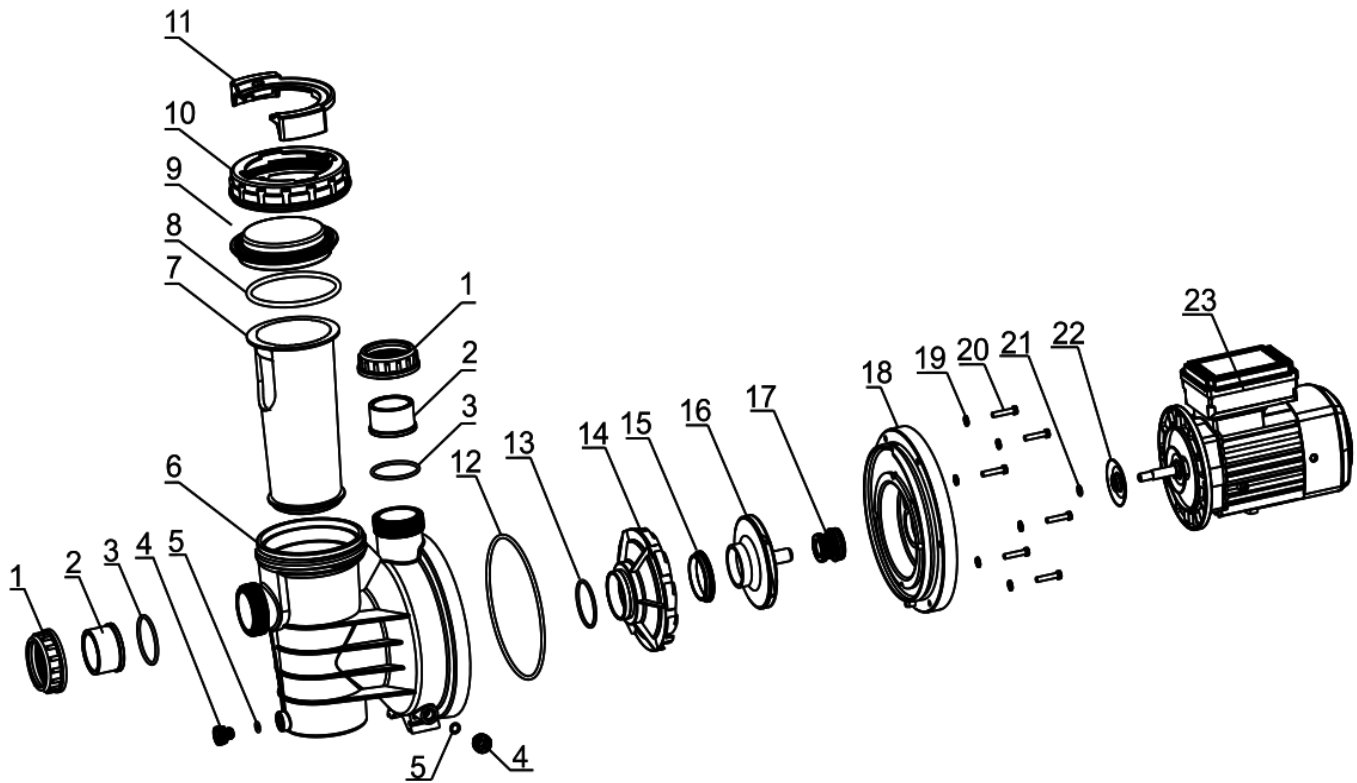


Figure 3

Item	Product Description	Item	Product Description
1	Tie-in Nut	13	O-Ring
2	Tie-in	14	Difusser
3	O-Ring	15	Activities Rings
4	Drainage Plug	16	Impeller
5	O-Ring	17	Mechanical seal
6	Pump casing	18	Pump cover
7	Filter	19	Pad
8	O-Ring	20	Hexagon bolt
9	Transparent cover	21	O-Ring
10	Gland cover of Transparent cover	22	Retaining block
11	Open Cover Wrench	23	Motor
12	O-Ring		

Release allairfrom filter and piping system.

In a flooded suction system (water source higher than pump), pump will prime itself when suction and discharge valves are opened.

If pump is not in a flooded suction system, unscrew and remove trap cover; fill trap and pump with water.

Clean and inspect Ring; re-install on trap cover.

Replace trap cover on trap; tum clockwise to tighten cover.

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.

3) Multiport Valve Replacement Parts

Item	Product Description	Qty
1	Handle (Big)	1
2	Pin for Handle	1
3	Washer for Handle	1
4	M6*30 Screw with Nut for Standard Lid	6
5	1.5" Top Mount Valve Standard Lid (Black)	1
6	O-ring for 1.5" Valve Lid	1
7	Washer for Spring	1
8	Spring for 1.5" Top Mount Valve	1
9	O-ring for 1.5" Valve Rotor	2
10	1.5" Valve Rotor	1
11	Spider Gasket	1
12	1.5" Top Mount Valve Bottom Body Clamp (black)	1
13	1.5" Diffuser	1
14	O-ring for Diffuser	1
15	1.5" Top Mount Valve Over Drain Diffuser	1
16	O-ring	1
17	O-ring for 1.5" Connector	3
18	1.5" Connector (Black)	3
19	O-ring for 1.5" Union	3
20	1.5" Union (A/E)	2
21	1.5" Union Nut (black)	3
22	1.5" Union with sight glass (short)	1
23	1.5" Union with sight glass holder	1
24	Connector for pressure gauge/stopper	1
25	Drain Plug with O-ring	1
26	Pressure Gauge with O-ring (40psi)	1

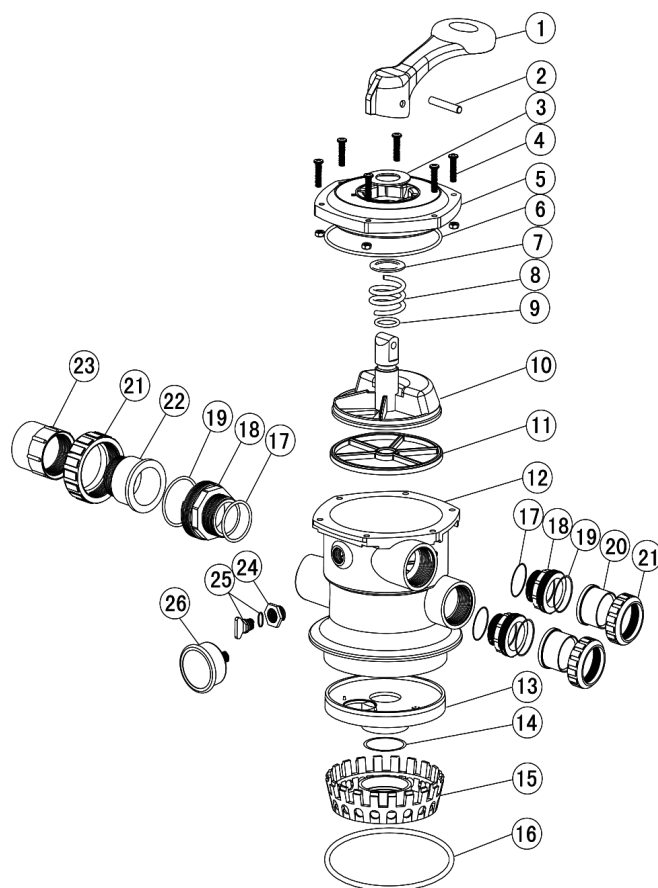


Figure 4

5. Valve Positions Function

Valve Position	Function
FILTER	Normal Filtration and Vacuum
BACK WASH	Clean Filter by reversing the flow
RINSE	Use after backwash to flush dirt from valve
WASTE	By-passes filter, use to vacuum the waster for lowering water level
RECIRCULATE	By-passes filter for circulating water to pool
CLOSED	Shut off all flow to filter or pool

6.Warning

- ⚠ 1. 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.
- ⚠ 2. TURN PUMP OFF BEFORE CHANGING VALVE POSITION.
- ⚠ 3. TO PREVENT DAMAGE TO THE PUMP AND FOR PROPER OPERATION OF THE SYSTEM, CLEAN PUMP STRAINER AND SKIMMER BASKET REGULARLY.
- ⚠ 4. DO NOT UNSCREW SCREWS OF FLANGE CLAMP WHILE PUMP IS RUNNING.