

MAGNA-FLO SAND FILTER TOP MOUNTED MULTI-PORT VALVE Assembly & Operating Instructions

F.G Series: 550mm - 21"
650mm - 25"
710mm - 28"



A. Assembly

1. Prepare a firm base for the sand filter, capable of withstanding a pressure of 100g per sq/cm. A 50mm thick slab of reinforced concrete would be best. The slab should be large enough for the filter base to be located with a 100mm clearance from all edges.

2. a. Remove clamp - Tank top.



b. Remove the MP Valve from the tank top.



c. Place the plastic locator over the down pipe.



3. a. Fill the filter tank with water, until it is at least half full. This is done so that the weight of the sand media does not damage the underdrain at the bottom of the tank.

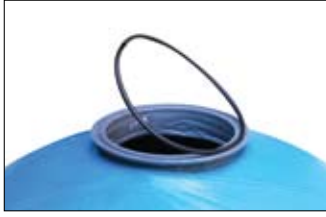
b. Pour the required amount of sand media into the filter tank - through the opening in the plastic down pipe locator. (See sand media requirements on page 3.)

c. Remove the plastic locator off the tank lid opening.



d. Brush off any sand from the lid Oring groove at the top of the tank. Make sure it is clean.

4. a. Place the MP Valve Oring in place.



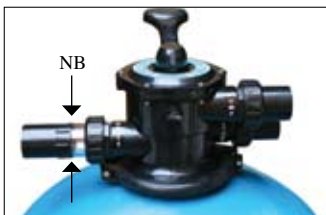
- b. Re-assemble the MP Valve on the top of the filter tank and downpipe, making sure the ports are facing in the correct direction, to be connected to the pool's suction and return pipes.



5. a. Re-assemble the MP Valve / Filter tank clamp. Tighten nuts and bolts.



- b. Attach the 3 barrel unions onto the MP Valve. The one with the clear plastic to be threaded onto the waste port. Make sure the rubber Orings are attached to ensure a watertight connection.



NB: Use thread tape on the clear plastic sight glass, when joining to the black pipe adaptor.

- c. Remove the plug out of the MP Valve. Replace with the pressure gauge, making sure that it has the rubber Oring attached. Tighten enough to make the connection watertight. **DO NOT OVERTIGHTEN AS THIS COULD DAMAGE THE MP VALVE.**



B. Operating Instructions

Valve Operation

The water flowing through the filter tank is controlled by the MP Valve. It is supplied assembled and ready for use. There are six locating positions on the valve. See page 4 for a description of these functions. Place next to the filter tank for easy reference.

IMPORTANT: The valve handle must NOT be moved while the pump is running.

Initial Start Up

Make sure the correct amount of filter sand is in the filter tank, and that all plumbing and barrel union connections are tight and secure. Make sure the pool is filled to a position halfway up the mouth of the skimmer box.

Set the MP Valve on **BACKWASH**. Run the pump until the water being pumped to waste is clean and clear. Check the clear plastic connector on the waste barrel union for clarity. Turn pump off. Set MP Valve to **RINSE**. Turn pump on. Run pump for 10-30 seconds. Turn pump off. Set MP Valve to **FILTER**. Turn pump on. Normal filtration commences.

Normal Operation

As the filter removes dirt from the pool water, the pressure in the filter tank will rise, indicated by an increased reading on the pressure gauge, located in the MP Valve. When the pressure gauge reading has increased to 50KPA over the START UP pressure, it is time to backwash the filter. Normal start pressure is between 50 & 70KPA.

Backwash

Turn the pump off. Set the MP Valve to BACKWASH. Turn on the pump and run until the water going to waste is clean and clear. (Check the clear plastic connector on the waste barrel union for clarity). Turn the pump off. Set the MP Valve handle to RINSE. Turn on the pump. Run for 10-30 seconds. Turn off pump. Return the MP Valve handle to FILTER and re-commence normal filtration.

Sand Filter Media Requirements	FG550	FG650	FG710
Grade of filter media (sand) 1mm	60kg	120kg	180kg
Tank dimensions - Height	A - 828mm	A - 924mm	A - 1035mm
Tank dimensions - Diameter	B - 525mm	B - 650mm	B - 710mm



IT IS VERY IMPORTANT TO SIZE THE SAND FILTER TO THE CORRECT PUMP PRESSURE AND FLOW RATE. ASSEMBLING A HIGHER THAN RECOMMENDED PUMP ON THE MAGNA-FLO SAND FILTER WILL REDUCE THE LIFE OF THE FILTER TANK, DUE TO EXCESSIVELY HIGH PRESSURES AND FLOW RATES, WHICH WILL RESULT IN CANCELLATION OF THE WARRANTY.

**FG 550 - Flow rate - 250 Litres per minute - 0.75 HP pump
FG 650 - Flow rate - 300 Litres per minute - 1 HP pump
FG 710 - Flow rate - 360 Litres per minute - 1.5 HP pump**

C. Maintenance

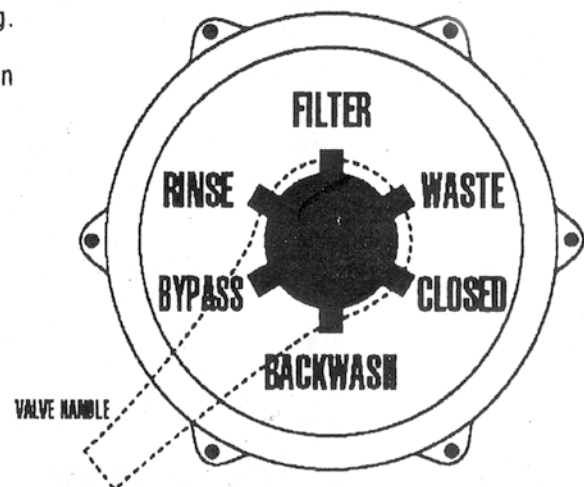
Magna-Flo pumps and filters require minimum routine maintenance, however, below are some handy hints.

1. **LEVEL OF POOL WATER** - The pool water should be maintained at least half way up the mouth of the skimmer box. This will allow efficient surface skimming and also ensure that the pump receives sufficient water supply.
2. **SKIMMER BOX** - Make sure the skimmer box weir door is floating freely, with no obstructions. Empty all debris from the skimmer basket, as this restricts the flow of water to the pump.
3. **PUMP** - Inspection and cleaning of the pump's hair and lint pot basket must be carried out on a regular basis, to ensure the pump is working to its maximum efficiency. When replacing the lid onto the pump's hair and lint pot, check for dirt particles around the rubber Oring seal. If the lid does not seal tightly, air leaks will occur, which will affect the pumps performance.
4. **FILTER** - As the dirt load in the filter increases, the pressure increases. When the pressure gauge reaches a reading of approximately 50KPA above the normal operating pressure, backwash the filter. (Use method described in the operating instructions) Normal operating pressure is between 50 and 70KPA.

D. General Considerations

1. Locate the pump and filter as close as possible to the pool. If the pump is located 750mm above the water level, place a non-return valve in the suction line in front of the pump.
2. If the pump and filter are located below pool water level, valves should be placed in both the suction and return pipes, to prevent the pool water flowing back during routine maintenance.
3. **MAKE SURE THE PUMP AND FILTER ARE PROTECTED FROM THE WEATHER.**
4. Place the pump and filter in a well drained area. Damp, non ventilated locations should be avoided. Pump motors need free circulation of air to aid in cooling.
5. Electrical connections should be made in accordance with all local codes and ordinances. **DO NOT USE LONG EXTENSION LEADS.**
6. Provide enough space around the filter and pump for routine maintenance.

FILTER	Pool Filtering & Vacuuming.
BACKWASH	Reverse water flow to clean filter sand.
RINSE	Normal filtration, water going to waste. To clean pipes - "Backwash" "Rinse" back to "Filter"
BYPASS	Water recirculation, bypassing filter.
WASTE	Water goes through the valve & out to waste.
CLOSED	Valve shut.



NEVER MOVE THE VALVE HANDLE POSITION, WHEN THE PUMP IS RUNNING

