

evoclear®

HIGH PERFORMANCE FILTERS

EVOCLEAR CARTRIDGE FILTERS



Installation and Operation Manual for **EVOCLEAR OPAL SERIES CARTRIDGE FILTERS**

OPAL 135 | OPAL 180

⚠ WARNING

This equipment must be installed and serviced by a qualified technician. Improper installation can create electrical hazards which could result in property damage, serious injury or death. Improper installation will void the warranty.

✂ NOTICE TO INSTALLER

This manual contains important information about the installation, operation and safe use of this product. Once the product has been installed this manual must be given to the owner/operator of this equipment.

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1.0 FOREWORD

- 1.1 Congratulations on your recent purchase of an Evolution Evoclear Opal Series Cartridge Filter. Please take a moment to read through the entire manual before using this product. The filter must be installed and operated as specified.
- 1.2 Evoclear Cartridge Filters do not require a media such as sand or D.E powder to operate, instead the filter contains a cartridge element which is easily removed to clean or replace.
- 1.3 Evoclear Cartridge Filters are designed for use in swimming pools and spas. They are ideal for situations where backwashing is impractical and when space is limited.

2.0 INSTALLATION

- 2.1 Remove the cartridge filter unit from the carton and install the pressure gauge into the threaded port on the filter lid provided. Using Teflon tape, wrap once around the brass pressure gauge thread in a clockwise direction and screw it into the threaded lid port.
- 2.2 **⚠CAUTION:** Only hand tighten the pressure gauge into the lid for sealing.
- 2.3 Place the cartridge filter unit into the required position. Ensure it is on a flat, level surface and aligned with the pump.
- 2.4 It is advisable to bolt the filter to the floor in the required position to prevent movement. Proper mounting can prevent filtration plumbing from loosening due to operating cycles and helps to avoid unnecessary stress on plumbing while unscrewing the filter lid locking ring.
- 2.5 The filter housing has marked INLET and OUTLET ports. Ensure that the pipe extending from the pump outlet is connected to the port marked INLET.
- 2.6 Screw the supplied half barrel unions and tails onto the inlet and outlet before glueing the PVC piping onto the filter.
- 2.7 Cut, place and fit the piping and fittings onto the pump and filter. Refer to Pump Installation Manual for correct pump plumbing procedures.
- 2.8 It is best practice to test fit all the pipe and fittings onto the system before glueing; this will ensure that the system has been aligned correctly.
- 2.9 **⚠CAUTION:** Use only the recommended glue for the connection of pipes and fittings.
- 2.10 Glue the pipe and fittings onto the pump, filter and pool return lines. Allow the glue to set as per the manufacturer's instructions before commissioning the system.

3.0 START UP PROCEDURE

- 3.1 The start up procedure for the filtration system can be followed for new systems or after cleaning. In either case:
1. Ensure that all valves installed before or after the filter are open.
 2. Ensure that the filter is plumbed correctly. Pipe from pump outlet must be attached to the filter inlet port.
 3. Loosen the air bleed screw on top of the filter lid.
 4. Prime the swimming pool pump. Refer to the Pump Installation and Operation Manual for correct pump priming procedures.
 5. Turn on the swimming pool pump and allow the pump to run until all the air has been expelled from the filter vessel. Water will run from the air bleed screw.
 6. Retighten the air bleed screw.
 7. The filter is primed and ready for operation.
- 3.2 In some cases this may be required to be done a few times before the unit will remain primed and be fully operational.
- 3.3 **⚠CAUTION:** Do not stand over the lid whilst adjusting the air bleed to purge the system of air. Injury may occur if air bleed screw comes loose.

4.0 MAINTENANCE

- 4.1 To ensure that you get maximum life from your Cartridge Filter, you will need to maintain the filter regularly.
- 4.2 When the filter is first started and has been purged of air, note the pressure on the pressure gauge. This initial pressure reading is what is known as the filter operation pressure, and it is important that you be aware of this figure.
- 4.3 All filtration systems will operate at different pressures depending on the pool hydraulics.
- 4.4 You will need to clean the filter cartridge element once the pressure gauge has reached 50kPa (7.2psi) above the operating pressure.
- 4.5 Evoclear Opal Series Cartridge Filters have a maximum operating pressure of 350kPa (50psi).

5.0 CLEANING

- 5.1 To clean the filter cartridge element, carry out the following procedure.
1. Unscrew the filter lid locking ring and remove the lid off the filter tank. In some cases where pressure has built up you will need to release air from the tank using the air bleed screw before removing the lid.
 2. Remove the cartridge element from the filter tank.
 3. Using a garden type hose clean the surface of the pleated elements. Make sure to clean between the pleats.
 4. Place the cartridge element back into the filter tank ensuring that it is seated correctly.
 5. Ensure the lid o-ring is correctly seated on the lid groove, and lubricate with a suitable silicone lubricant if required.
 6. Push the lid onto the tank and screw the locking ring down.
 7. Refer to the start up procedure to recommence operation.
- 5.2 It is suggested that you should periodically remove the cartridge element and soak it overnight in a suitable cartridge cleaning compound. Soaking can aid with the extraction of debris not removed by hosing down the element.
- 5.3 Cleaning intervals depend upon the swimming pool's condition and use. Intervals between cleaning the element should not exceed a period of 12 months in any instance.

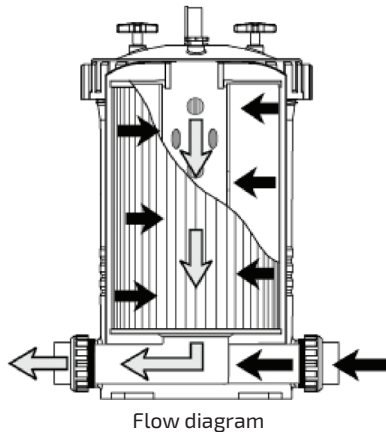


Fig. 1

6.0 TROUBLESHOOTING

Fault/Problem	Possible Causes and Remedies
Water is not clear	Insufficient disinfectant level.
	Incorrect pool chemistry.
	Heavy bathing and/or dirt loads.
	Incorrect flow.
	Insufficient running times, increase pump run time.
	Filter is dirty. Clean per instructions, see <i>Page 3</i> .
	Hole in filter element.
Low water flow	Check strainer baskets for debris.
	Check for air leaks on suction side.
	Check for restrictions or blockage in either suction or return lines.
	Filter needs to be cleaned or replaced.
	Pool water level too low.
	Pump not primed.
	Pump impeller vanes blocked.
	Strainer baskets not being used and/or not being cleaned regularly.
Pump operating under speed (low voltage).	
Short filter cycles	Presence of algae, check disinfectant content.
	Check pH and total alkalinity.
	Pump output exceeds design flow rate of filter, check pump performance.
	Ineffective cleaning, check conditions, replace filter cartridge element.
High pressure on start-up	Small eyeball fitting in pool/spa.
	Partially closed valve on return line.
	Too large of pump, check selection.
Dirt returns to pool	Hole in filter cartridge element, replace filter cartridge element.
	Worn o-ring seal inside filter, replace o-ring.

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