



Water, the Liquid of Life
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WATERCO

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FULFLO ASTRA D.E. FILTERS INSTALLATION / OPERATION MANUAL

10.0



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WATERCO FULFLO D.E. FILTERS

The Waterco Fulflo D.E. filter has been designed to deliver crystal clear water to your swimming pool.

All D.E. filters are ideal for use in swimming pools and spas where you require a high level of debris and particle removal.

INSTALLATION

Your Waterco D.E. filter is supplied with multiport valve plumbing kit which attaches to the front of the D.E. filter using half unions onto the threaded inlet and outlet ports.

Locate the filter body into the required position. Ensure that it is on a **flat level surface** and is aligned with the pump.

The Multiport valve plumbing kit is to then be attached to the filter tank. The multiport valve inlet and outlet are clearly marked on the ports with raised writing on the moulding.

Ensure that the pipe extending from **the pump outlet** is connected to the multiport valve **port marked inlet**.

Cut and fit the UPVC pipe and fittings onto the Fulflo D.E. filter multiport valve and the pump outlet. REFER to pump installation manual for the correct pump plumbing procedures.

It is best practice to fit all the cut pipe and fittings onto the filtration **system before gluing**; this will ensure that the system has been aligned correctly.

Glue the pipe and fittings onto the pump, filter and pool return lines and allow the glue to set for 24 hours before commissioning the system.

CAUTION: Use only the recommended glue for the connection of pipes and fittings.

It is advisable **to bolt** the filter down using **dyna bolts** to the floor where the filter is located. This will prevent the filtration plumbing from working loose with the expansion and operation cycles of the filter.

On the tank top there are two threaded ports. One is for the air release valve and the other is for the pressure gauge.

Screw the air release valve into the threaded port ensuring that **the o-ring is located** on the air release tube for sealing.

Using **Teflon tape**, wrap once around the brass thread on the pressure gauge in a **clock wise** direction and screw into the threaded lid port.

CAUTION: Hand tighten the pressure gauge into the required port only.

START UP PROCEDURE

The Waterco Fulflo D.E. filter is a very effective water filter which if maintained correctly will provide you with years of trouble free service.

To start up the filtration system either from new or after cleaning is exactly the same.

1. Ensure that all valves that maybe installed before or after the system are open or in the flow directions which are required.
2. Ensure that the filter is plumbed correctly. Pipe from **pump outlet** must be attached to the filter **inlet port**.
3. Open the air release valve on the top of the filter tank (do not remove).
4. Turn pump on until water comes out through the top of **the air release** valve, then close the air release.
5. Turn off the pump.
6. Mix the required amount of D.E. Powder into a bucket of water. **(Refer table below for amount)**. You must mix the powder **thoroughly** into slurry.
7. Turn on the swimming pool pump.
8. **Pour the slurry into the swimming pool skimmer box.**

The slurry will run through the suction line into the pump and then into the filter where it covers the D.E. grids (septum's).

CAUTION: Ensure that when you pour the slurry into the skimmer box it is through the top lid and not at the weir (flapper door).

Your filter is now fully operational.

At this stage you **must note down** the pressure gauge reading. This reading is your swimming pool **operating pressure**.

NOTE: Operating pressures will vary from swimming pool to swimming depending upon the individual hydraulics.

MODEL NUMBER	QTY Kg	QTY lbs
2027	1.5	3.31
2036	1.75	3.86
2048	2.15	4.73

MAINTENANCE

To ensure that you get maximum life from your Waterco Fulflo D.E. filter you will need to maintain the filter regularly.

You will need to re-cover the D.E. filter grids with the D.E. powder every time you back wash the filter.

Back washing is required when the pressure gauge pressure **reads approximately 50 kpa** above the start up operating pressure.

Waterco Fulflo D.E. filters have a maximum operating pressure of 250 kpa.

BACKWASHING

CAUTION: YOU MUST TURN OFF THE PUMP BEFORE TURNING THE MULTIPOINT VALVE INTO DIFFERENT POSITIONS.

1. With the pump switched off, set the multiport valve into the back wash position.
2. Open the air release valve and start the pump up. Close the air release when water is expelled.
3. Looking at the clear sight glass on the multiport valve, run the pump until the water is clear.
4. Turn off pump.
5. Turn the multiport valve into the filter position and prepare the D.E. powder into slurry as in the start up procedure.
6. Follow the start up procedure to re-cover the D.E. Filter grids for normal operation.

PERIODIC CLEANING

The filter grids (septums) should be removed periodically and thoroughly cleaned.

This can be done using a garden hose to remove any stubborn debris, which normal backwashing may not remove.

Alternately you may remove the grids hose them down and immerse them a recommended cleaning compound to further remove any calcium build up.

TROUBLE SHOOTING

PROBLEM	
Filter doesn't clean pool	<p>Incorrect pool chemistry Heavy bathing and dirt loads Incorrect flow In sufficient running times Filter is dirty</p>
Low water flow	<p>Check pump strainer baskets for debris Check for air leaks on suction side Clean filter Pool water level too low Pump not primed Pump impeller blocked</p>
Short filter cycles	<p>Presence of algae check chlorine level Check ph and alkalinity Pump output exceeds design flow of filter. Element blocked due to presence of high calcium or cement</p>
High pressure on start up	<p>Small eyeball fitting Blocked or partially blocked return line Valve on return line shut or blocked</p>
Motor wont start	<p>Blown fuse Power or time clock failure Motor burnt out Jammed impeller</p>
<p>Overload tripped on motor wait until its cooled down before re-starting</p>	