**+CLOVERLEAF**

**CLOVERLEAF CL1 VORTEX**

Thank you for purchasing a Cloverleaf CL1 Biological Pond Filer. I hope you find the instructions below for fitting and maintaining your filter helpful. The filter you have purchased is designed to filter a pond of approximately 1,250 gallons (5,625 Liters) for Koi or 2,500 galloons (11,250 Liters) for Goldfish.

For effective filtration you will need a pump installed that will turn your water around once every two hours.

YOUR FILTER EXPLAINED

Your Cloverleaf CL1 can be either pump or gravity fed. If the filter is being pump fed you will need a Cloverleaf pump adaptor (Available from your local stockiest, part number CLPA3). This will convert the pump pressure to volume to maximize the efficiency of the vortex of the filter.

Your filter comprises of 4 separate biological/mechanical chambers.

The vortex acting as the first chamber has an inlet arm set off center and is media free.

The second chamber is fitted with mechanical brushes which rest on top of a grid.

The third chamber contains Japanese Matting which again rests on top of a grid

The fourth chamber contains your outlet and media of Aqua rock and foams, the rock again rests on a grid and foams placed on top of the Aqua rock, foams should follow the order of fine on bottom, medium and then coarse*.*

Each chamber has a discharge incorporated to allow for easy waste control

INSTALLATION

The filter needs to be stood on hard level ground (i.e., cement base or paving slabs)

Pump Fed

The inlet arm on the vortex needs 5 to 6mm removed from the front of the arm, and the pump adaptor is pushed on without lubricant or sealant, the universal hose tail then needs to be cut down to required size for pump inlet and glued using solvent glue to front of pump adaptor.

The outlet is a 2” tank connector which only requires connection to 2” inch pipe acting as the return to your pond.

Gravity Fed

The top lip of the filter should sit level with the water level of your pond. You need to remove 5 to 6mm from the front of the inlet arm and then fit a 3” single socket coupling (part number SSC3) which will push on without restricting your flow from your pond, ideally the filter should be fed by a bottom drain or skimmer via a Cloverleaf slide valve. NOTE for 4x2 bottom drains use a 2” - 3” reducing bush, and for 9x4 bottom drains use a 3” - 4” reducing bush.

The outlet is a 2” tank connector which only requires connection to 2” inch pipe acting as the return to your pond. You will need to block the top of the outlet pipe inside the last chamber with a 2” push fit plug.

*PLEASE NOTE FLUSH NEW AQUAROCK BEFORE INSTALLATION!*

MAINTENANCE

Your Cloverleaf filter has been designed to be simple and easy to maintain and clean.

There are no hard and fast rules to the filters maintenance as every pond is unique in its own way, regular observation and cleaning is the only true way of optimizing the filters efficiency.

The four discharges allow you to release sediment collected in each chamber when required.

The brushes in the second chamber should be cleaned annually by removing and flushing with the use of pond water.

The Japanese matting in the third chamber should be cleaned annually again by removing and flushing with pond water.

The aqua rock in the fourth chamber virtually needs no maintenance, but if you notice a reduced flow a 50% replacement of rock will be required. The foams should be cleaned using pond water. NOTE: foams should be replaced each spring

*PLEASE NOTE FLUSH NEW AQUAROCK BEFORE INSTALLATION!*

**NEVER USE TAP WATER TO FLUSH FILTER OUT ALWAYS USE POND WATER**

All Cloverleaf filters are designed to run with standard Soil or Waste pipe which is available through your Cloverleaf stockiest or through plumbing merchants

Replacement brushes, foams, Japanese matting and rock, or any pipe fittings will be available from your Cloverleaf stockiest

If you have any problems locating pipe or fittings, or any queries on the installation please do not hesitate to contact our help line on 01277 366002