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HOZELOCK
C Y P R I O

EcoCel

2500/5000/10000

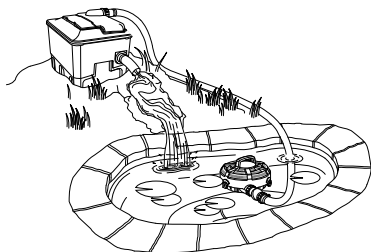


Fig 1-a

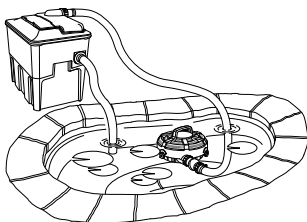


Fig 1-b

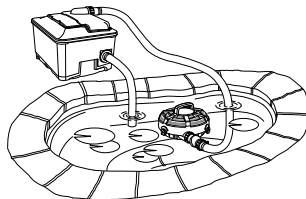


Fig 1-c

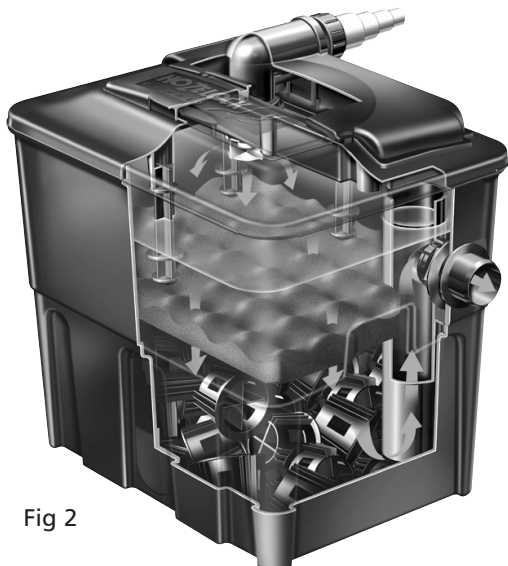


Fig 2

GB Hozelock Cyprio Ecoel garden pond filters can be sited almost anywhere. (See a, b, c Fig 1) and teamed with the appropriate pond pump, they will remove unwanted solids from the water and convert dissolved organic and chemical fish waste into harmless compounds. In addition, these filters combined with UVC units will give guaranteed clearwater, if the advice given in the Hozelock Cyprio Filter Equipment Selection Chart and on these instructions is adhered to.

SAFETY

! This product is **NOT SUBMERSIBLE**, and should be sited where it cannot fall into the water or become waterlogged. However, the design is weatherproof, and Ecoel filters can be safely installed outdoors.

! Important – This product is not suitable for use in direct sunlight over long periods of time.

! Protect from frost. In cold winter weather, when fish are not active and algae growth ceases, the unit may be drained of water, removed (if possible) from its installation and stored in a dry, frost-protected area.

SIZING THE EQUIPMENT

The Filter Equipment Selection Chart overleaf gives general guidelines on the specifications of pump, filter, UV and flexible hose diameter for garden ponds up to 10000 litres (2200 gallons), with stocking options for goldfish or Koi. For best results the following condition factors must also be taken into account.

DEPTH

Hozelock Cyprio recommends a minimum depth of 1.2m (4') for Koi ponds. For a pond with an average depth of less than 0.75m (2' 6") the Condition Factor is + 25% (ie add 25% to the pond volume if less than 0.75m deep) Shallow ponds are subject to full penetration of sunlight, and warm up quickly. This encourages the growth of algae.

LOCATION

Pond location determines the daily amount of sunlight or shade a pond receives. Ponds exposed to full sunshine throughout the day have a Condition Factor of +25%.

CLIMATE

Climate affects water temperatures and fish activity rate/feeding requirements. The more active the fish, the greater the demands on the filtration system.

In hot climates (i.e. South Africa), the Condition Factor is +35%

In temperate climates (i.e. Southern Europe), the Condition Factor is +15%

In a Northern European climate (i.e. most areas of Great Britain), the Condition Factor is +0%.

EXAMPLE

You have a 2250 litres (500 gallon) goldfish pond 0.6m (2') deep (Condition Factor +25%).

You live in London - a Northern European climate (Condition Factor +0%). The pond is exposed to full sunlight (+25%). The effective volume of your pond is therefore increased by 50% (25% + 25%), and you would need to size your equipment as though your pond held 3375 litres (750 gallons)

1.0 INSTALLATION

Important:

The pump supplying this unit must not have a maximum head exceeding 6m (3.8 PSI, 0.3 Bar) The table in these instructions will guide you through the best pump to be fitted with your filter. Once installed the water will flow through the filter as shown in Fig 2

1.1 Ecoel filters are pump-fed, external filters, ideal for being partially buried adjacent to your pond or being positioned above ground if desired. The filter may also be concealed at the top of a waterfall (See a, b, c Fig 1)

If you choose to part-bury your Ecoel filter, the excavation should be firmly backfilled with compacted sand or soil to support the unit.

1.2 Ecoel filters incorporate inlet hose tails to fit 20 - 40mm (3/4" – 1 1/2") hose (refer to Equipment Selection Chart overleaf) and an outlet hose tail to fit 40mm (1 1/2") hose. The pump inlet and filter outlet pipe should be at opposite ends of the pond for optimal water circulation in the pond. Bear this in mind when purchasing, measuring and cutting the hose.

1.3 Cut the inlet hose tail on your Ecoel Filter to the size appropriate for the diameter of the hose to be used (See Fig 3). Then connect the hose from your pump to this inlet hose tail and secure with hose clips, available separately, to ensure there are no leaks. Do not overtighten.

1.4 The filter outlet connector and overflow moulding (2 off each on Ecoel 10000) should be secured to the side of the vessel. (See Fig 4) The outlet hose (if fitted) should be secured in the same way as the inlet hose. Avoid kinks and bends, and keep hose runs as short as possible (preferably less than 1m) to minimize flow restrictions.

1.5 **Wet Test:** It is essential that the unit is wet tested. Connect the hoses to the inlet and outlet as described in 1.3 above. Switch on the pump and run for an hour. Inspect for leaks and tighten connector if necessary. If leaks persist then return the filter to the retailer. This test should be repeated when the foam is cleaned or replaced.

2.0 FLOW RATE

2.1 The pond volume should pass through the Ecoel every 1 1/2 - 2 hours, the fastest flow rate being recommended for Koi ponds. Do not exceed the maximum, as stated in the Equipment Selection Chart overleaf. Correct flow rate is essential if you are to obtain clear water. If your installation does not suffer from high losses of flow (i.e. long hose runs) it may be necessary to adjust the flow down to achieve the 1 1/2 - 2 hour turnover rate using a Hozelock Cyprio Flow Control Hose Tap.

2.2 Small diameter hose, unnecessarily long hose runs and a high pumping lift ('head') can all considerably reduce water flow from the pump to the filter. We recommend choosing a pump that will deliver the required flow for the filter against full static lift (= vertical distance between pond surface and filter inlet), plus 0.6m (2ft) to allow for friction losses in hoses.

2.3 The object of filtration is to transfer waste material from the pond into the filter, and therefore any pump used as part of the package should be capable of handling solids. We recommend the Hozelock Cyprio Titan filter pump, specifically designed for ponds in the size range covered by Ecoel. The pump should be positioned on the bottom in the deepest part of the pond, as this is where solids accumulate.

2.4 How to check your flow rate: Take a container of a known volume and time how long it takes to fill (in seconds). Then divide 3600 by the number of seconds it takes to fill the container, and multiply by the volume (litres or gallons)

of the container. The result will be the flow rate in gallons or litres per hour ie Flow Rate Litres per hour LPH = (container volume m

3x 1000) / (3600/time 's' to fill container). To get gallons per hour GPH divide answer by 4.5

3.0 PERIODS OF OPERATION

Maintain filtration 24 hours a day throughout the fish-feeding season (until water temperature falls below 10°C), but preferably all year round. In the winter, operating the pump and filter will maintain a background level of friendly bacteria in the Ecoel, and will help prevent the pond icing over in all but the severest weather conditions. If the pump is switched off for winter, the filter media (be it ammonia or plastic biomed) must be thoroughly washed before resuming filtration in the spring, and your Ecoel will need to be re-maturated from scratch (See 'Maturation' 5.0). Never feed your fish when the filter is not in use.

4.0 FISH STOCKING DENSITY

Under normal conditions and feeding regime, the Ecoel range will support up to 50cm of fish (2 fish 25cm long or 5 fish 10cm long) per 1000 litres (10" of fish per 100 gallons) of pond capacity. Introduce fish slowly over the first few weeks, up to 20% of maximum recommended level, increasing this if you wish to 50% after six months. The balance will allow for fish growth.

5.0 MATURATION

Biological maturation means that the filter has built up sufficient nitrifying bacteria to convert harmful fish and other organic waste (i.e. Ammonia, Nitrite) into harmless Nitrate. The process normally takes 6-8 weeks, but is dependent upon many factors such as water temperature, feeding rate and stocking density. It is recommended that you do not switch your UVC on during this period. We strongly recommend the use of Hozelock Cyprio test kits at all times to check water quality, but especially during this critical period. The kits contain full instructions and invaluable pond management advice.

6.0 CLEANING YOUR ECOEL

6.1 Ecoel filters deliver maximum performance with minimum maintenance. However, as the foam blocks up less water can flow through the foam and cleaning becomes necessary. If the pond is very dirty, the filter may need cleaning every few days at first, as it takes up waste matter very quickly. Once the pond becomes clearer, there will be less waste to remove and the filter will need cleaning less often.

WARNING:

Prolonged running of the filter when it needs cleaning will result in difficulty in cleaning and may reduce the life of the foam.

6.2 Switch off the pump supplying water to the filter. Gently remove the lid from the vessel. (See Fig 5)

6.3 Remove the foam sheet and rinse it in the water left in the vessel (See Fig 6) Do not over clean. Drain the vessel of all the waste and water.

6.4 The spray head outlet (See 'A' Fig 7) from the UVC chamber can be removed for cleaning if required. To remove, unscrew the spray head locking screw (See 'B' Fig 7) Twist and unlock the bayonet and lift the spray head away. (See 'A' Fig 7) To replace, repeat the above in reverse.

6.5 Reposition the clean foam sheet. Ensure the foam sheet is in contact with the walls of the filter vessel around its entire circumference and the dimples in the foam are facing upwards.

6.6 Gently locate the lid onto the vessel and snap down around the rim. Restart the pump, checking for leaks, which if left undetected could result in the pond being drained of water.

7.0 WINTER STORAGE

IMPORTANT:

When not in use, the unit should be removed, thoroughly washed and cleaned, dried and stored in a dry frost protected

area. Always store the unit with the lid off to ensure adequate ventilation and drying.

CONTACT DETAILS:

Hozelock Cyprio, Midpoint Park,
Birmingham B76 1AB. England

www.hozelock.com

Spare Parts			
	Ecoel		
	2500	5000	10000
Foams	Z11656	Z11656	Z11676

Filter Equipment Selection Chart

Chart for guidance only. Based upon 4m length Cypriflex pond hose, 1 metre static lift from pond water level.

Model		Max Pond Size Litres (Gallons)	Max Flow rate Litres/Hour	Recommended Pumps	Recommended Hose Internal Diameter	
					Inlet	Outlet
2500	No Fish	5000 (1100)	1250 (275)	Titan 2000	20-40mm	40mm
	Fish	2500 (550)	1250 (275)			
5000	No Fish	10000 (2200)	2250 (500)	Titan 3000	20-40mm	40mm
	Fish	5000 (1100)	2250 (500)			
10000	No Fish	20000 (4400)	4500 (1000)	Titan 5500	20-40mm	40mm
	Fish	10000 (2200)	4500 (1000)			

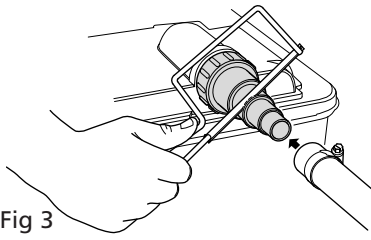


Fig 3

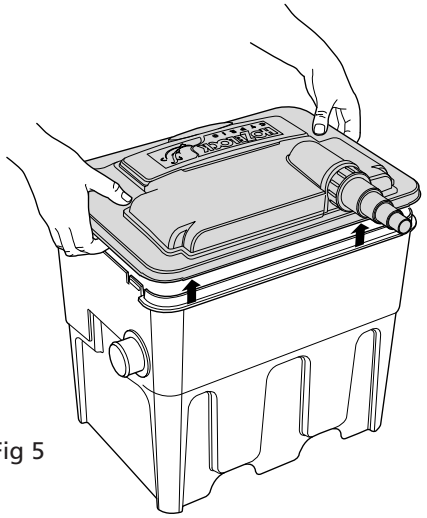


Fig 5

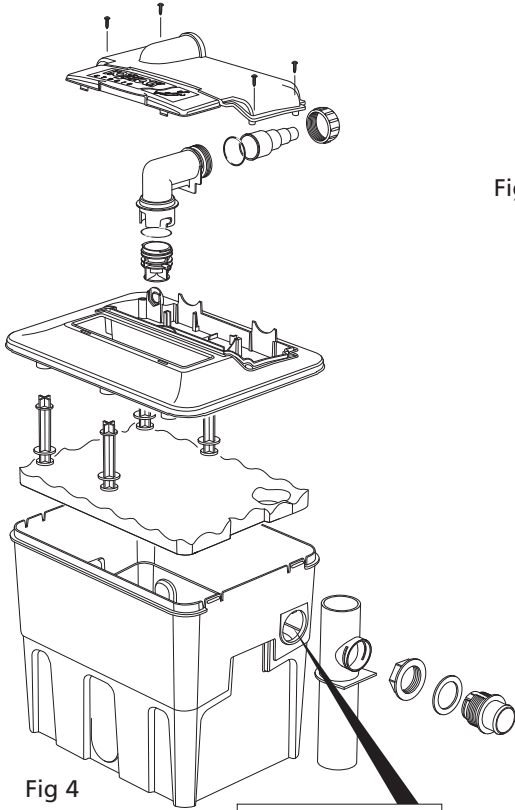


Fig 4

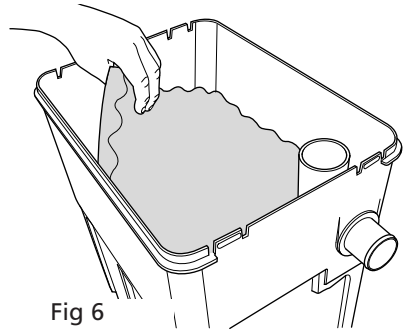


Fig 6

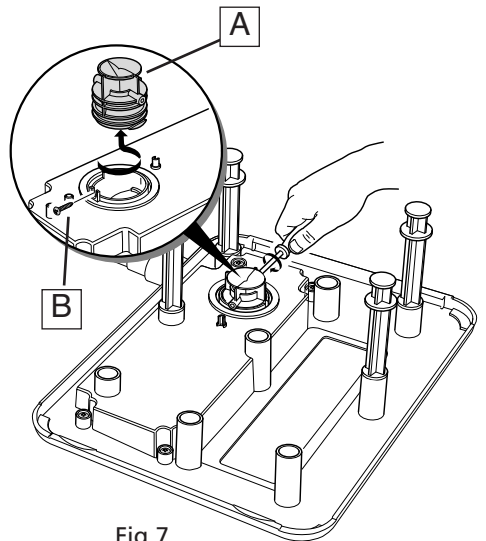


Fig 7



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