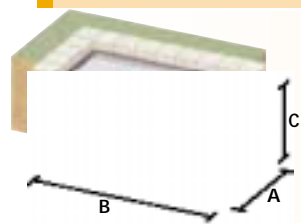




clearwater systems

We have been guaranteeing clearwater for over 21 years

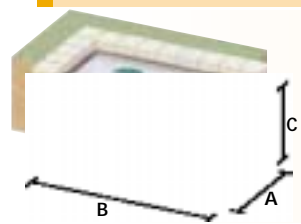
Calculate how much water a rectangular shaped pond will hold



$$A \text{ metres} \times B \text{ metres} \times C \text{ metres} = \text{Volume m}^3$$

$$\text{Volume m}^3 \times 1000 = \text{Litres Capacity}$$

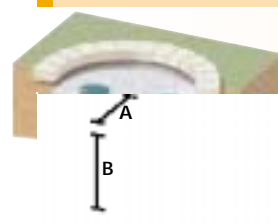
Calculate how much water a triangular shaped pond will hold



$$(A \text{ metres} \times B \text{ metres} \times C \text{ metres}) \div 2 = \text{Volume m}^3$$

$$\text{Volume m}^3 \times 1000 = \text{Litres Capacity}$$

Calculate how much water a circular shaped pond will hold



$$A \text{ metres} \times A \text{ metres} \times 3.14 = \text{Surface Area in m}^2$$

$$\text{Surface Area in m}^2 \times B \text{ metres} = \text{Volume m}^3$$

$$\text{Volume m}^3 \times 1000 = \text{Litres Capacity}$$

Why Filtration?

The typical garden pond easily becomes polluted because:

- Fish waste and decaying vegetation pollute the water.
- It has little water movement.
- It is shallow and therefore warm, encouraging algae blooms.

A lack of water movement, plus the presence of algae, can reduce oxygen to dangerously low levels. A Hozelock Cyprio filtration system will help create and maintain a natural balance in a garden pond - using our advanced technology to provide natural processes with a helping hand.

Sizing a pond and the system required

Achieving clear water and qualifying for the Clearwater Guarantee depend on having the correctly sized filtration system.

The products you need are dependent on :

- **The size of your pond**
- **The number of fish**
- **The temperature of the water** - warmer water encourages algae to grow, increases pollutants and reduces oxygen. If in warm climate add 15% to actual pond volume. If in hot climate add 35% to actual pond volume
- **Pond Depth** - average pond water depth less than 0.75m (2'6") Add 25% to actual pond volume
- **Pond Location** - if in full sun add 25% to actual pond volume

Selecting the right equipment 'on-line'

Visit the interactive pond selector on our website;

www.hozelock.com

Simply enter your pond details and it will give you a detailed recommendation covering all the factors above.



compact filtration systems

Biological pond filters with built-in ultra violet clarifier for clear and healthy pond water

A compact filtration system is for people who want a convenient filtration system, which will not detract from the beauty of their pond design. Two products - the Bioforce UVC pressurised filter and the Titan solids handling pump, will look after ponds up to 18000 litres (4000 gallons), and form the basis of our compact filtration philosophy.

1 Solids Handling Pump

The range of specially developed Titan solids handling pumps move polluting solids out of the pond into the filter where they can easily be removed.

2 Biological Pond Filter with integral UVC

The Bioforce UVC is small and can be hidden in the ground. It is very easy to install and simple to maintain.

Being pressurised by the pond pump, water can be pumped up from the Bioforce to the top of a waterfall.

The Ecopower and Ecomax gravity pond filters combine mechanical, biological and UV-filtration in one compact unit to guarantee clear and healthy pond water. Unlike the Bioforce, the Ecopower and Ecomax, are not pressurised from the filter and water returns to the pond by gravity.

The EasyClear™ Clearwater and Fountain Pump is the easy way to have a clear and healthy pond with a fountain. This fully integrated unit has a 2 in 1 action:

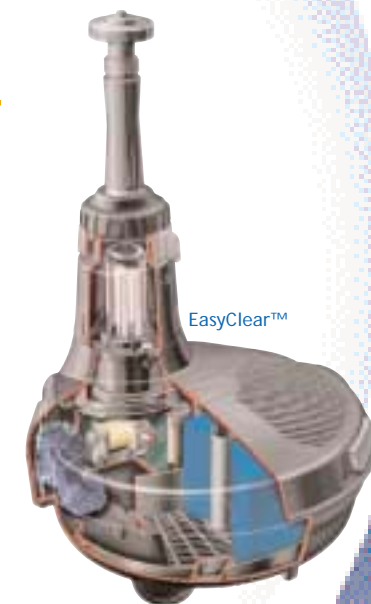
1 Clear and healthy water

- The filter sieves out solids that make the water cloudy and makes the water healthy for fish and plants.
- The ultra violet clarifier eliminates green water.

2 Fountain

- The fountain creates a decorative display with a choice of three fountain heads.

The correctly sized compact filtration package will qualify for our unique Clearwater Guarantee.



ecoclear™

The Compact Filtration System for clear and healthy pond water



Part number	Description	Product Bar Code	Pack Qty
1326	Ecoclear 2200	50 10646 03282 7	1
1327	Ecoclear 4500	50 10646 03491 3	1
1328	Ecoclear 9000	50 10646 03493 7	1
1329	Ecoclear 18000	50 10646 03679 5	1

Model	Filter	Pump
Ecoclear 2200	Bioforce 2200uvc	Titan 2000
Ecoclear 4500	Bioforce 4500uvc	Titan 3000
Ecoclear 9000	Bioforce 9000uvc	Titan 5500
Ecoclear 18000	Bioforce 18000uvc	Titan 12000



www.hozelock.com

P e r f e c t P o n d s M a d e S i m p l e



bioforce®

Revolutionary,
compact, effective pond
purifiers

For maximum pond sizes
up to 18000 litres (4000 gallons)

Bioforce presents a major advance
in pond filtration in effectiveness
and miniaturisation



In 2002 we introduced the Bioforce 18000UVC which is suitable for ponds up to 18000 litres (4000 gallons) and is, as such, the largest, most advanced pressurised pond filter on the market.

Many years of development and testing went into the Bioforce. Not only are we confident that it works very well but it has quickly become accepted as a winner in all levels of the trade.



Indeed development of the Bioforce range has been ongoing. Several new features have been introduced to the Bioforce to reduce and simplify maintenance, while enhancing the natural biological filtration process in the product.

It is a closed, pressure system holding more bacteria than a similar size normal filter. It is small enough to completely hide near the pond when it is buried up to its lid.

Being pressurised by the pond pump, water can be pumped up from the Bioforce to the top of a waterfall. This makes it much easier to hide.

Bioforce is ideal for pond keepers who want simplicity, clear water and an attractive hidden filter system.

Bioforce is available as a biological filter or combined biological filter and UVC. With the UVC, clear water is guaranteed if the correct size Bioforce is used.

The quartz tube used in the Bioforce allows 87% of the UV rays to pass through it to act on the algae. Plain glass and plastic only allow 30% and 50% of UV rays through them respectively.

Simple to install

It is best to use a Titan solids handling pump which moves solids from the pond to the Bioforce where they can be easily flushed away. Pond water is pumped up to the Bioforce which is buried up to its lid to hide it.

Water from the Bioforce can either be passed straight back into the pond or up to the top of a waterfall. A waterfall will increase aeration.

Easy to clean and maintain

- Layered foam disks of different coarseness ensure that water clarity can be achieved with minimum maintenance (excl. 1100).
- An automatic cleaning indicator lets the pondkeeper know when the foams need cleaning.
- Bayonet fitting of the electrical housing allows easy access for cleaning the quartz tube and main body.
- Bayonet fitting of quartz tube for easy lamp changing.

Bioforce 18000uvc

By developing the technology to couple two Bioforce 9000UVCs together, Hozelock Cyprio has introduced a Bioforce capable of treating ponds up to 18000 litres (4000 gallons) in size. Water enters through the central T-piece and into both units. Only one of the units has an operational by-pass feature. This ensures that one unit blocks up before the other, maximising the amount of time before the filter needs cleaning. When the cleaning indicator is activated both units need cleaning out.

Bioforce Performance Data

Model	Max Litres (Max Gallons)	Max Fish CM (Inches)	LPH (GPH)	UVC	Quartz Tube
1100	1100LTR (250GALS)	60 cm (2' 01")	550 LPH (125 GPH)	-	20 - 25 mm
1100UVC	1100LTR (250GALS)	60 cm (2' 01")	550 LPH (125 GPH)	5w	20 - 25 mm
2200	2200LTR (500GALS)	120 cm (4' 02")	1100 LPH (250 GPH)	-	20 - 25 mm
2200UVC	2200LTR (500GALS)	120 cm (4' 02")	1100 LPH (250 GPH)	5w	20 - 25 mm
4500	4500LTR (1000GALS)	240 cm (8' 04")	2250 LPH (500 GPH)	-	20 - 25 mm
4500UVC	4500LTR (1000GALS)	240 cm (8' 04")	2250 LPH (500 GPH)	9w	20 - 25 mm
9000	9000LTR (2000GALS)	480 cm (16' 08")	4500 LPH (1000 GPH)	-	20 - 40 mm
9000UVC	9000LTR (2000GALS)	480 cm (16' 08")	4500 LPH (1000 GPH)	11w	20 - 40 mm
18000UVC	18000LTR (4000GALS)	960 cm (31' 05")	9000 LPH (2000 GPH)	11w x 2	20 - 40 mm

Bioforce 1100/2200uvc

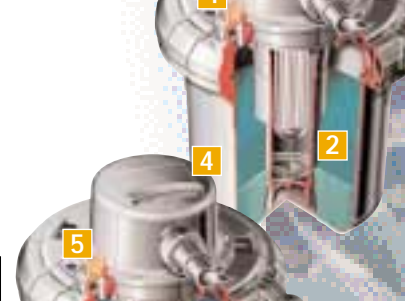
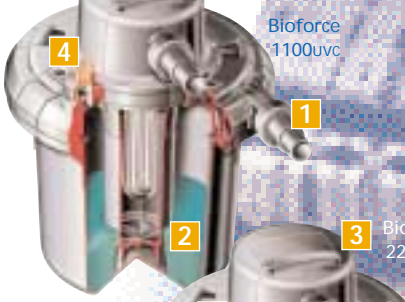
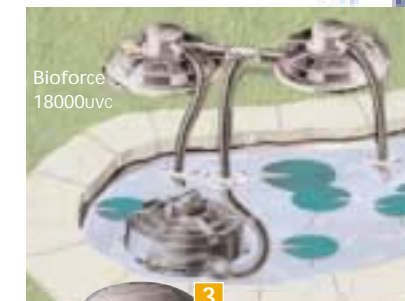
The system described below is used in the Bioforce 1100 and 2200UVC.

- 1 Water enters tangentially, spinning the water inside the Bioforce to settle out the solids.
- 2 Water is forced through an upper coarse foam disk and a lower fine grade disk (only one disk in the Bioforce 1100). Because the water is pressurised the foam can fill with many more beneficial bacteria without becoming blocked. It is this larger number of bacteria, taking pollutants out of the water, that make Bioforce so effective.
- 3 Water then passes close to the UV lamp, separated from it by a quartz glass sleeve. UV light makes algae clump together and sink to the bottom of the pond or get trapped in the Bioforce foam next time round.
- 4 When the Bioforce becomes blocked this red button will rise up. This signals that the foams need rinsing in pond water.

Bioforce 4500/9000/18000uvc

The system described below is used in the Bioforce 4500, 9000 and 18000UVC. These models feature enhanced biological action from the addition of plastic biomedia.

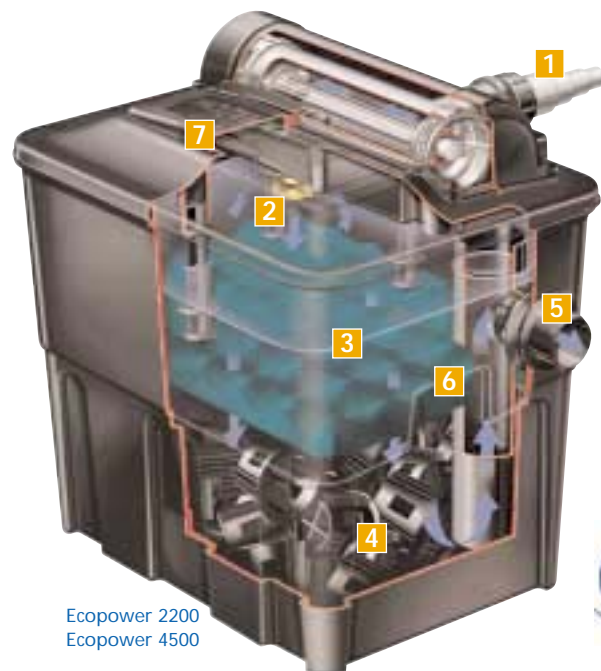
- 1 Water enters tangentially, spinning the water inside the Bioforce to settle out the solids.
- 2 The water is forced through three specially graded foams which catch particles and hold beneficial bacteria all the way through. This increases the performance of the unit and increases the time between cleaning.
- 3 Almost solids free, the water passes through plastic biomedia where more beneficial bacteria cleanse the pollutants.
- 4 Water then passes close to the UV lamp, separated from it by a quartz glass sleeve. UV light makes algae clump together and sink to the bottom of the pond or get trapped in the Bioforce foam next time round.
- 5 When the Bioforce becomes blocked this red button will rise up.



Part number	Description	Product Bar Code	Pack Qty
1301	Bioforce 1100	50 10646 03067 0	2
1302	Bioforce 2200	50 10646 03066 3	2
1303	Bioforce 4500	50 10646 03065 6	2
1304	Bioforce 9000	50 10646 02960 5	1
1311	Bioforce 1100uvc	50 10646 03064 9	2
1312	Bioforce 2200uvc	50 10646 03140 0	2
1313	Bioforce 4500uvc	50 10646 03142 4	2
1314	Bioforce 9000uvc	50 10646 02961 2	1
1335	Bioforce 18000uvc	50 10646 03598 9	1
1320	Bioforce 1100 Foam (Pre 2001)	50 10646 02838 7	2
1321	Bioforce 2200 Foam (Pre 2001)	50 10646 02839 4	2
1322	Bioforce 4500 Foam (Pre 2001)	50 10646 02840 0	2
1324	Bioforce 1100 Foam	50 10646 03577 4	2
1305	Bioforce 2200 Foam	50 10646 03578 1	2
1306	Bioforce 4500 Foam	50 10646 03579 8	2
1323	Bioforce 9000 Foam	50 10646 03221 6	2
1316	Bioforce 1100 Annual Service Kit (Pre 2001)	50 10646 02841 7	1
1317	Bioforce 2200 Annual Service Kit (Pre 2001)	50 10646 02842 4	1
1318	Bioforce 4500 Annual Service Kit (Pre 2001)	50 10646 02843 1	1
1336	Bioforce 1100 Annual Service Kit	50 10646 03563 7	1
1337	Bioforce 2200 Annual Service Kit	50 10646 03559 0	1
1338	Bioforce 4500 Annual Service Kit	50 10646 03574 3	1
1319	Bioforce 9000 Annual Service Kit	50 10646 03220 9	1
1523	Bioforce UVC 1100, 2200, 4500 quartz	50 10646 03436 4	1
1524	Bioforce UVC 9000, 18000 quartz	50 10646 03437 1	1
1527	Bioforce UVC 1100, 2200, 4500 quartz (Pre 2001)	50 10646 03209 4	1
1528	Bioforce UVC 9000 quartz (Pre 2001)	50 10646 03208 7	1



ecopower™



Ecopower 2200
Ecopower 4500

1 Combined filter and UVC

The affordable answer for clear and healthy water in garden ponds



Combination Filters Performance Data

Model	Max Litres (Max Gallons)	Max Fish CM (Inches)	LPH (GPH)	UVC	
Ecopower 2200uvc	2200LTR (500GALS)	79 cm (2' 08")	1100LPH (250GPH)	6w	20 - 25 mm
Ecomax 2200uvc	2200LTR (500GALS)	107 cm (3' 06")	1100LPH (250GPH)	6w	20 - 25 mm
Ecopower 4500uvc	4500LTR (1000GALS)	157 cm (5' 05")	2250LPH (500GPH)	8w	20 - 25 mm
Ecomax 4500uvc	4500LTR (1000GALS)	212 cm (6' 10")	2250LPH (500GPH)	8w	20 - 25 mm
Ecopower 9000uvc	9000LTR (2000GALS)	322 cm (10' 10")	4500LPH (1000GPH)	16w	40 mm
Ecomax 9000uvc	9000LTR (2000GALS)	435 cm (14' 03")	4500LPH (1000GPH)	16w	40 mm

Part number	Description	Product Bar Code	Pack Qty
1347	Ecopower 2200uvc	50 10646 03680 1	1
1348	Ecopower 4500uvc	50 10646 03681 8	1
1349	Ecopower 9000uvc	50 10646 03754 9	1
1363	Ecopower 2200 & 4500 Foam	50 10646 03828 7	2
1371	Ecopower 9000 Foam	50 10646 03830 0	2



The Ecopower is suitable for ponds up to 9000 litres (2000 gallons) and it is easy to disguise when positioned near the pond.

- 1 Water enters the unit and passes close to a UV-lamp, separated from it by a quartz sleeve. UV light makes algae clump together so it can be caught by the foam.
- 2 Water leaves the UV chamber via a spray head, which aerates the water for a high oxygen content.
- 3 Solid particles in the water are trapped on a foam sheet.
- 4 Almost solids free, the water passes through plastic biomedica where beneficial bacteria cleanse pollutants. The amount of biomedica contained in the filter increases in proportion to the size of filter/pond.
- 5 Clear healthy water then passes up an outlet tube and back into the pond.
- 6 Integral carry handles are positioned on the side of the filter to make the filter easy to lift if maintenance is required.
- 7 Viewing hatch to observe the internal operation of the filter, in particular whether any maintenance is needed.



ecomax™

Combined filter and UVC

A technologically advanced and highly efficient mechanical and biological filter for garden fish ponds



Ecomax 2200
Ecomax 4500

The Ecomax has been designed with advanced filtration technology for the pondkeeper who wants a crystal clear pollutant free pond.

- 1 Water enters the unit and passes close to a UV lamp, separated from it by a quartz sleeve. The UV light makes algae clump together so it can be caught by the foam.
- 2 In-built 'turbulator' - the flow of the water through the UVC, created by the product design, increases the unit's efficiency by even exposure of the water to the UV light and eliminates the possibility of air locks.
- 3 Water leaves the UV chamber via a venturi, which aerates the water for a high oxygen content. The venturi's position in the filter is very important - the water is oxygenated before it enters the biomedica, which significantly increases the effectiveness and activity of beneficial bacteria. This results in a highly efficient breakdown of harmful pollutants in the water.
- 4 The water passes through plastic biomedica where beneficial bacteria cleanse pollutants. The amount of biomedica contained in the filter has been scientifically measured and tested to ensure optimum biological filtration performance and increases in proportion to the size of filter/pond to support a greater number of fish.
- 5 A fine layer of foam traps any remaining solid particles.
- 6 Clear healthy water then passes back into the pond (via two outlets on the Ecomax 9000).
- 7 A drain is built in to flush out sludge, which collects at the bottom of the filter. The floor of the filter is sloped so sludge collects around the drain for easy removal.
- 8 Integral carry handles are positioned on the side of the filter to make the filter easy to lift if maintenance is required.
- 9 Viewing hatch to observe the internal operation of the filter, in particular whether any maintenance is needed.



Part number	Description	Product Bar Code	Pack Qty
1357	Ecomax 2200	50 10646 03682 5	1
1358	Ecomax 4500	50 10646 03683 2	1
1359	Ecomax 9000	50 10646 03684 9	1
1364	Ecomax Foam	50 10646 03829 4	2
1515	UV-lamp Combi Filter 6w	50 10646 04001 3	10
1516	UV-lamp Combi Filter 8w	50 10646 04002 0	10
1517	UV-lamp Combi Filter 16w	50 10646 04003 7	10



Ecomax 9000



New for 2005

EasyClear™

Clearwater and Fountain Pump

Another innovation from Hozelock Cyprio that will drive and expand the aquatics market



www.hozelock.com

The EasyClear™ is a fully integrated unit that is positioned in the pond and guarantees the end user everything they want in terms of beautiful, clear and healthy water and an attractive and reliable fountain display. It has a 2 in 1 action:

1 Clear and healthy water

- The filter sieves out solids that make the water cloudy and makes the water healthy for fish and plants.
- The ultra violet clarifier eliminates green water.

2 Fountain

- The fountain creates a decorative display with a choice of three fountain heads.

Clearwater is guaranteed in ponds of up to 2000 litres capacity.

This product has been specifically designed to encourage small pond owners and the millions of potential pond owners to invest by overcoming the complexities of product selection and by making installation much easier.

Like all Hozelock Cyprio products the EasyClear™ has a multitude of features to make installation, operation and maintenance very simple.

Easy Installation

Everything is placed in the water so that there is no need for a filter system outside the pond which is difficult to disguise. Furthermore, only one electric cable and no hose connections makes installation very simple.

- 1 One power cable for simple and cost effective installation.
- 2 Ball joint for easy levelling of fountainhead.
- 3 Feet for stability.
- 4 Fountain stem extension segments for varying pond depths.

Easy Operation

- 5 3 Fountainheads (2 Tier, 3 Tier & Bell) for display choice.
- 6 Flow control to adjust size of fountain.
- 7 Fully integrated filter - UVC, mechanical and biological action.



EasyClear™ Performance Data

Max Fountain Height	Bell Jet Diameter	Max Litres (Max Gallons)	Max Fish CM (Inches)	UVC
0.60 m (2' 00")	0.35 m (1' 02")	2000LTR (440 GALS)	0.72 m (2' 04")	5w



Easy maintenance

- 8 Latch for tool free access to filter foam for cleaning.
- 9 Anti-clog fountain strainer for low maintenance.
- 10 Bayonet fitting for easy access for lamp changing and cleaning.
- 11 Water bypass allows continued UVC and fountain operation if foam is blocked.

Easy to sell

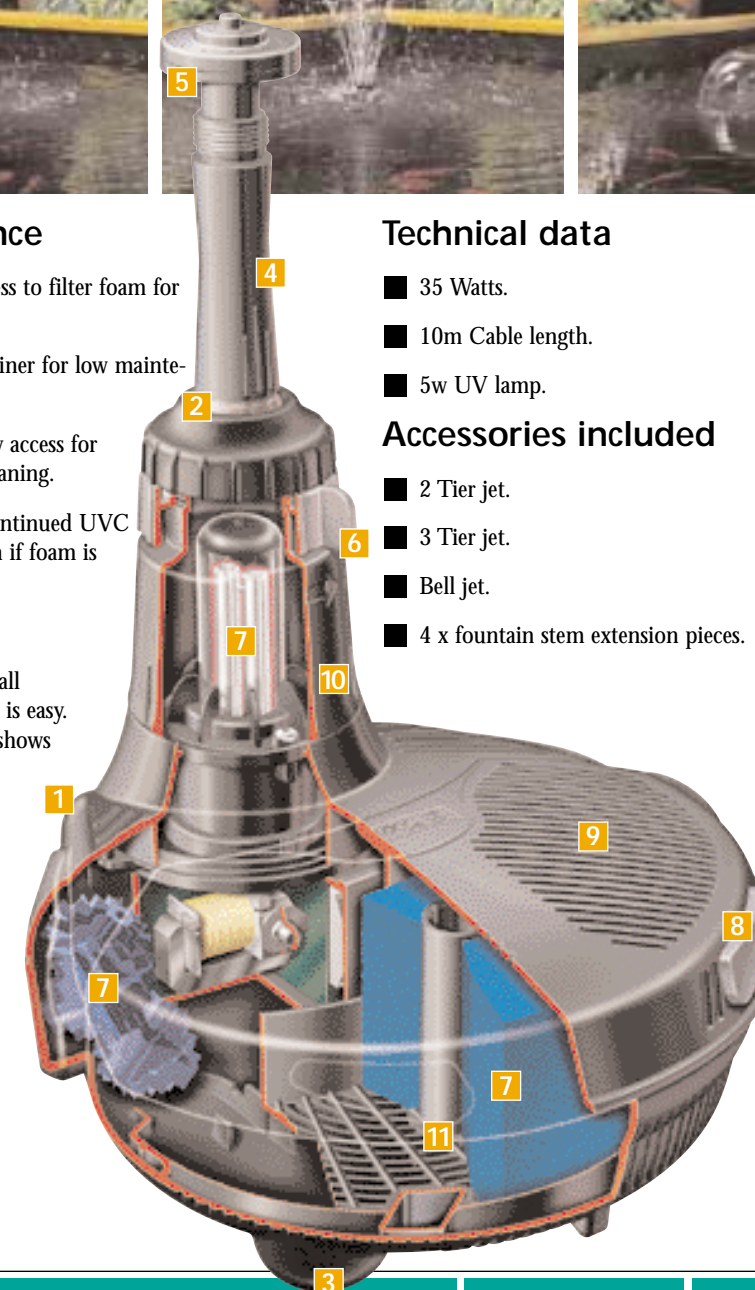
The EasyClear™ is for small 'beginner's' ponds so sizing is easy. The display carton clearly shows that it is for a pond up to 2.5m x 1.5m x 0.5m deep.

Technical data

- 35 Watts.
- 10m Cable length.
- 5w UV lamp.

Accessories included

- 2 Tier jet.
- 3 Tier jet.
- Bell jet.
- 4 x fountain stem extension pieces.



Part number	Description	Product Bar Code	Pack Qty
3327	EasyClear™ - 230v	50 10646 04078 5	2
3027	EasyClear™ LV	50 10646 04079 2	2
1519	Lamp 5w PLS TUV	87 11500 64248 6	10
1526	Quartz Tube	50 10646 04114 0	1
1372	EasyClear™ Foam	50 10646 04115 7	1
3418	Pump Impeller	50 10646 03581 0	5

P e r f e c t P o n d s M a d e S i m p l e



conventional filtration systems

Hozelock Cyprio was the originator of the three part conventional system for guaranteed clearwater. A simple trio of products, accurately sized for every pond up to 27,000 litres (6,000 gallons), perform a natural process to clear and purify pond water without chemicals.

Solids Handling Pump 1

The Titan or Prima XL solids handling pumps move polluting solids out of the pond into the filter where they can easily be removed.

Ultra Violet Clarifiers 2

Exceptionally effective Hozelock Cyprio Vorton Ultra Violet Clarifiers cause algae to clump together into groups too large to float. They either sink to the bottom of the pond and die or pass through the system to be removed by the biological filter foams.



3 Biological Filters

Hozelock Cyprio Biological Filters serve two main purposes. Firstly they act as a mechanical strainer for debris and clumps of algae, removing these from the pond. Secondly they create a home for billions of beneficial bacteria which digest pollutants as the water passes over them. The biological filter contains media of very high surface area to create a habitat for very high concentrations of bacteria.

The whole pond volume should pass through the filter every two hours. The system should be run 24 hours a day to keep the bacteria supplied with pollutants.

Important too, is the quality design and engineering of these products based on the Hozelock Cyprio formula comparing pond size with water flow and amounts of biomedica used.

Conventional Filters Performance Data

Model	Max Litres (Max Gallons)	Max Fish CM (Inches)	LPH (GPH)	UVC	
Ecocel 2200	2200 LTR (500 GALS)	79 cm (2' 08")	1100 LPH (250 GPH)	Vorton 2200	20 - 25 mm
Ecocel 4500	4500 LTR (1000 GALS)	157 cm (5' 05")	2250 LPH (500 GPH)	Vorton 4500	20 - 25 mm
Ecocel 9000	9000 LTR (2000 GALS)	322 cm (10' 09")	4500 LPH (1000 GPH)	Vorton 9000	20 - 40 mm
GM 6500	6500 LTR (1500 GALS)	358 cm (12' 06")	3250 LPH (750 GPH)	Vorton 9000	12 - 25 mm
GM 11500	11500 LTR (2500 GALS)	633 cm (20' 10")	5750 LPH (1250 GPH)	Vorton 14000	20 - 40 mm
GM 18000	18000 LTR (4000 GALS)	990 cm (33' 04")	9000 LPH (2000 GPH)	Vorton 18000	20 - 40 mm
GM 27000	27000 LTR (6000 GALS)	1485 cm (50' 00")	13500 LPH (3000 GPH)	Vorton 27000	20 - 40 mm



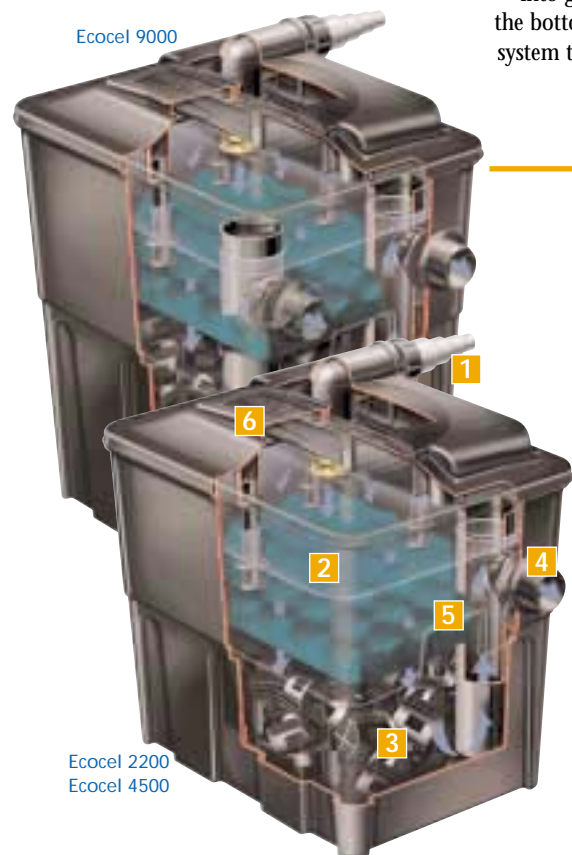
Green Machines pack three filtration techniques into a compact box, brushes, foam cartridges and plastic biomedica

So Green Machines give ideal water for healthy fish and, with a Hozelock Cyprio UVC (positioned on the lid) guaranteed clear water too

How Green Machines are so effective

- 1 Pond water enters through an aerating spray bar.
- 2 Brushes separate out larger solids.
- 3 The foam cartridges are the first biological medium. Because they are only taking small solids they don't block easily.
- 4 Water passes down the centre of the foam cartridges, through plastic Biomedica in the lower compartment and back into the pond.

Ecocel 9000



Ecocel 2200
Ecocel 4500

ecocel™

Biological pond filters

For ponds up to 9000 litres

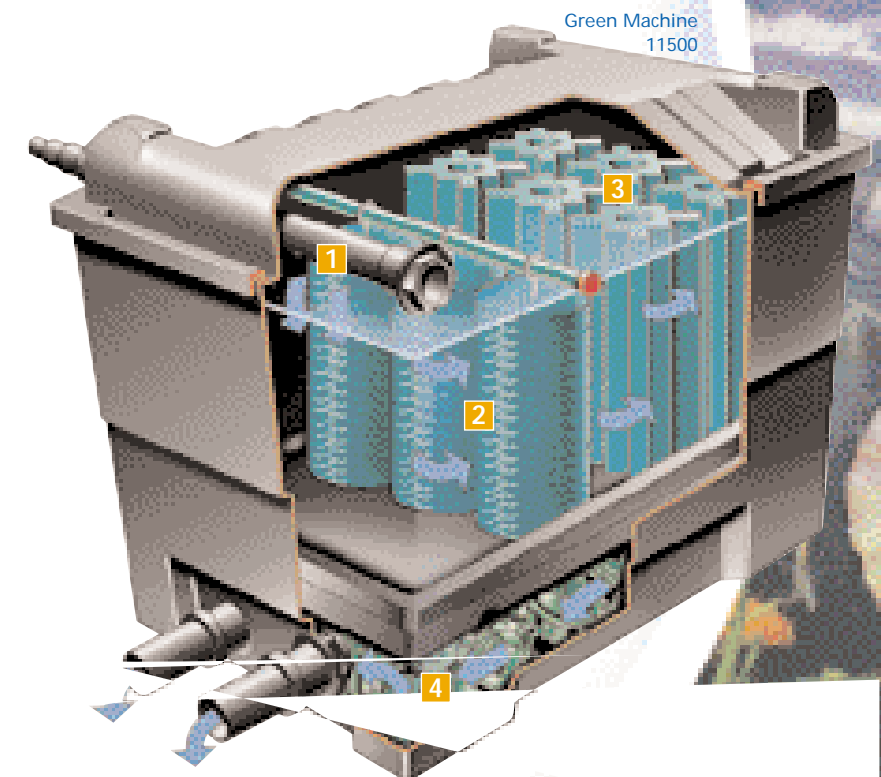
When used with a Hozelock Cyprio UVC (see pages 20-21) the Ecocel carries the Clearwater Guarantee

- 1 Water enters the unit via a spray head, which aerates the water for a high oxygen content.
- 2 Solid particles in the water are trapped in a foam sheet.
- 3 Almost solids free, the water passes through plastic biomedica where beneficial bacteria cleanse pollutants. The amount of biomedica contained in the filter increases in direct proportion to the size of the filter/pond to support a greater number of fish.
- 4 Purified water then passes up an outlet tube and back into the pond.
- 5 Integral carry handles are positioned on the side of the filter. To make the filter easy to lift if maintenance is required
- 6 Viewing hatch to observe the internal operation of the filter, in particular whether any maintenance is needed.

Part number	Description	Product Bar Code	Pack Qty
3921	Ecocel 2200	50 10646 03685 6	1
3922	Ecocel 4500	50 10646 03686 3	1
3923	Ecocel 9000	50 10646 03687 0	1
1363	Ecocel 2200/4500 Foam	50 10646 03828 7	2
1371	Ecocel 9000 Foam	50 10646 03830 0	2

green machine®

The proven filtration systems for enthusiasts



Green Machine 11500

Part number	Description	Product Bar Code	Pack Qty
1350	Green Machine 6500	50 10646 03123 3	1
1351	Green Machine 11500	50 10646 03122 6	1
1352	Green Machine 18000	50 10646 03113 4	1
1353	Green Machine 27000	50 10646 03115 8	1



www.hozelock.com

P e r f e c t P o n d s M a d e S i m p l e