

## 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	IOXXXX
1100	1100 LTR (250 GALS)	60 cm (2' 01")	550 LPH (125 GPH)	-	20 - 25 mm
<b>1100</b> uvc	1100 LTR (250 GALS)	60 cm (2' 01")	550 LPH (125 GPH)	5w	20 - 25 mm
2200	2200 LTR (500 GALS)	120 cm (4' 02")	1100 LPH (250 GPH)	-	20 - 25 mm
<b>2200</b> uvc	2200 LTR (500 GALS)	120 cm (4' 02")	1100 LPH (250 GPH)	5w	20 - 25 mm
4500	4500 LTR (1000 GALS)	240 cm (8' 04")	2250 LPH (500 GPH)	-	20 - 25 mm
<b>4500</b> uvc	4500 LTR (1000 GALS)	240 cm (8' 04")	2250 LPH (500 GPH)	9w	20 - 25 mm
9000	9000 LTR (2000 GALS)	480 cm (16' 08")	4500 LPH (1000 GPH)	-	20 - 40 mm
9000 uvc	9000 LTR (2000 GALS)	480 cm (16' 08")	4500 LPH (1000 GPH)	11w	20 - 40 mm
<b>18000</b> uvc	18000 LTR (4000 GALS)	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 2200 UVC.

- 1 Water enters tangentially, spinning the water inside the Bioforce to settle out the solids.
- 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.
- 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.

- 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.
- Almost solids free, the water passes through plastic biomedia where more beneficial bacteria cleanse the pollutants.
- 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	

