APF20 & APF30 Bio-Pond Filter with Multi-stage cleaning plus ultra-violet filtration.

Model / Volume (L)	APF20 / 20 litres	APF30 / 30 litres
Ponds (L)	10000	13000
In/Out (mm)	Diameter: 20/25/32/40	Diameter: 20/25/32/40
Dimensions(mm)	370 X 525	370 X 605
Flow rate (L/h)	2500	4500
UV (W)	9	11
Supply Voltage	220-240V 50Hz	220-240V 50Hz

Special Features:

- The UV Bio filter can be partially buried and is therefore less visible.
- It has an integral indicator to show when cleaning is required.
- It incorporates mechanical filtration, biological filtration and UV clarification to give you a clear healthy pond.
- The simple clip lid design makes maintenance easy.
- The clear hose tail on the exit of the filter allows you to easily and safely monitor that the UV lamp is operating.

Bio-filter Features:

- Multi biological and mechanical filtration process provides maximum pond filtration.
- Large foam surface provides increased filtration and beneficial bacterial growth.
- “Bio-balls” provide a high surface area for beneficial bacteria to thrive and naturally clean pond pollutants.
- Unique external pressure indicator shows green when filter is performing properly, and shows red when filter cleaning is necessary.
- Pressurized filter is ideal for use with waterfall applications.
- Easy and secure sealing mechanism ensures positive seal and easy operation.
- UV Light incorporates special quartz glass, a high-quality clear material that allows virtually all ultra-violet light to pass, significantly increasing the performance of your filter.

How does it work?

Stage 1 – Mechanical Filtration

Water is pumped into the filter creating a necessary pressure to begin the mechanical filtration stage. There are three phases on the mechanical filtration stage- coarse, medium and fine filtration. Each phase uses a specially designed foam sponge to effectively remove all sizes of unwanted debris.

Stage 2- Biological Filtration

The biological filtration stage begins when water reaches the bottom of the filter. This stage uses bio-balls providing a habitat for beneficial bacteria to grow. These bacteria naturally convert harmful ammonia and other wastes into healthy nitrates that fertilise aquatic plants and support healthy pond environment.

Stage 3- UV Filtration

The final filtering stage uses low voltage, Ultra-violet (UV) light Located in the middle of you filter. Exposure to ultra-violet light kills algae as the water passes upward through the filter on its way back to your pond.

SAFETY NOTES – PLEASE READ BEFORE INSTALLATION

The Pondrite Bio-Filter is carefully tested and certified to ensure both safety and operating performance. Failure to follow the instructions and warnings in this manual may result in filter damage or serious injury. Be sure to read, thoroughly understand, and save this manual for future reference.

1. The filter has been designed to be used outdoors, but it does not have to be submerged.
2. Do not plug-in or otherwise use this product if any part of it appears to be damaged or operates abnormally. Have the product examined and repaired, if necessary, by a qualified electrician.
3. Make a "drip loop" on the electrical cord connecting the filter to the plug by letting a portion of the cord hang lower than either the filter or the plug.
4. This product is designed to be permanently wired to a mains supply housed in a dry, weatherproof enclosure .this appliance must be earthed.
5. Always disconnect the plug from the outlet before any maintenance or troubleshooting is performed.
6. Avoid the bulb over-heating, switch it off when there is no water inside the filter.
7. Avoid the direct contact with UV-C light which can be harmful to your eyes and the skin.

INSTALLATION

1. Choose a suitable place to install the filter at the pond side. Dig a six inch deep channel to/from the pond to allow you to bury and conceal the tubing once connected. You will also need to create a hole to partially bury the bio-filter while keeping it in an upright and level position. The filter can buried in the ground up to the filter clips.(See figure 1)

2. Connect your pump to the filter tubing connector marked by the symbol in arrow with flexible hose. Lay the hose in the channel. Attach the tubing to the filters connector marked by the symbol out arrow and lay it in the channel.. You should use stainless steel clamps to create a water tight seal at all of your tubing connection (filter and pump). (See figure 2)

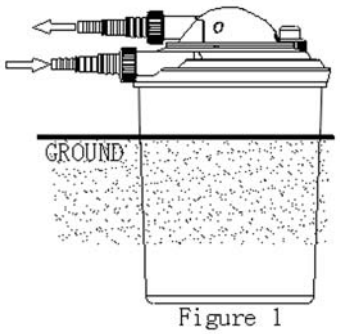


Figure 1

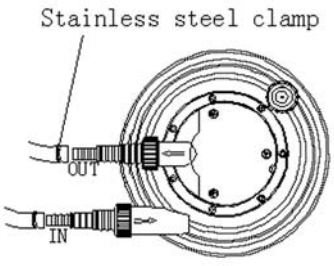


Figure 2

ELECTRICAL INSTALLATION

Each filter is supplied with a 5 metre length of 3 core cable including the UV ballast. If the cabling is accidentally damaged – DISCARD THE PRODUCT, DO NOT ATTEMPT TO REPAIR THE CABLING.

The installation of the wiring must conform to both local and national wiring regulations; be carried out by qualified electrical personnel with all materials used complying with current British safety standards.

All connections must be made in a fully waterproof enclosure, ideally with a fully insulated double-pole switched fuse spur for easy operation. Where cables enter the enclosure, create a "drip loop" by doubling the cable on itself, to prevent water from seeping along the cable.

Wiring connections:
BLUE – NEUTRAL (marked with an “N” in most terminal connections)
BROWN – LIVE (marked with an “L” in most terminal connections)
GREEN/YELLOW – EARTH (marked with ⏚ in most terminal connections)

The ballast for the UV bulb located in the cabling is fully protected against water ingress. However, where possible locate the ballast in a clean dry position within the wiring enclosure.

When the installation of the filter (and pump) is complete, switch on the pond pump and filter, checking thoroughly for leaks.

Correct functioning of the UV-C bulb is indicated by the light being visible on the top of the outer lid (See figure 3).

MAINTENANCE

1. Your filter is designed to let you know when filtration performance declines. Your filter is equipped with a colour-coded pressure indicator located on the container lid. When your filter is operating effectively, the pressure indicator will display green. If flow rate within your filter drops, performance also declines and the pressure indicator will display RED.(See figure 1)
2. The filter can be opened and the individual filter component can be cleaned and washed manually. Unlatch the clamping bracket and remove the container lid.
3. Wash the filter sponge with clean tap water. The bio-balls should only be cleaned if they are highly contaminated and you should only use pond water to preserve the microorganisms and keep the filter biologically active.
4. When reassembling the device, make sure the o-ring is correctly positioned for a watertight seal. If the seal is out of place or missing there will be significant leakage when filter is operating.

CHANGING THE BULB

If the algae proliferate, it is necessary to check the correct the functioning of the UV-C bulb. The UV-C bulbs have an average service life of approx.7000hours. i.e. ideally replace every year.

1. To change bulb, first unplug the pump and bio-filter from its power source. Remove three screws from the centre cap (with clear window) located on the top of the filter. Remove the two screws from the cable connector. Unscrew the clear acrylic bulb holder – turning anti-clockwise and gently lift out the bulb assembly. Allow UV light assembly and light bulb to cool and dry completely before handling. Once cool and dry, grip the base of the bulb with a dry cloth and gently pull the bulb from the assembly unit (do not pull on the bulb by gripping the glass element). Slide new bulb into place until properly seated.

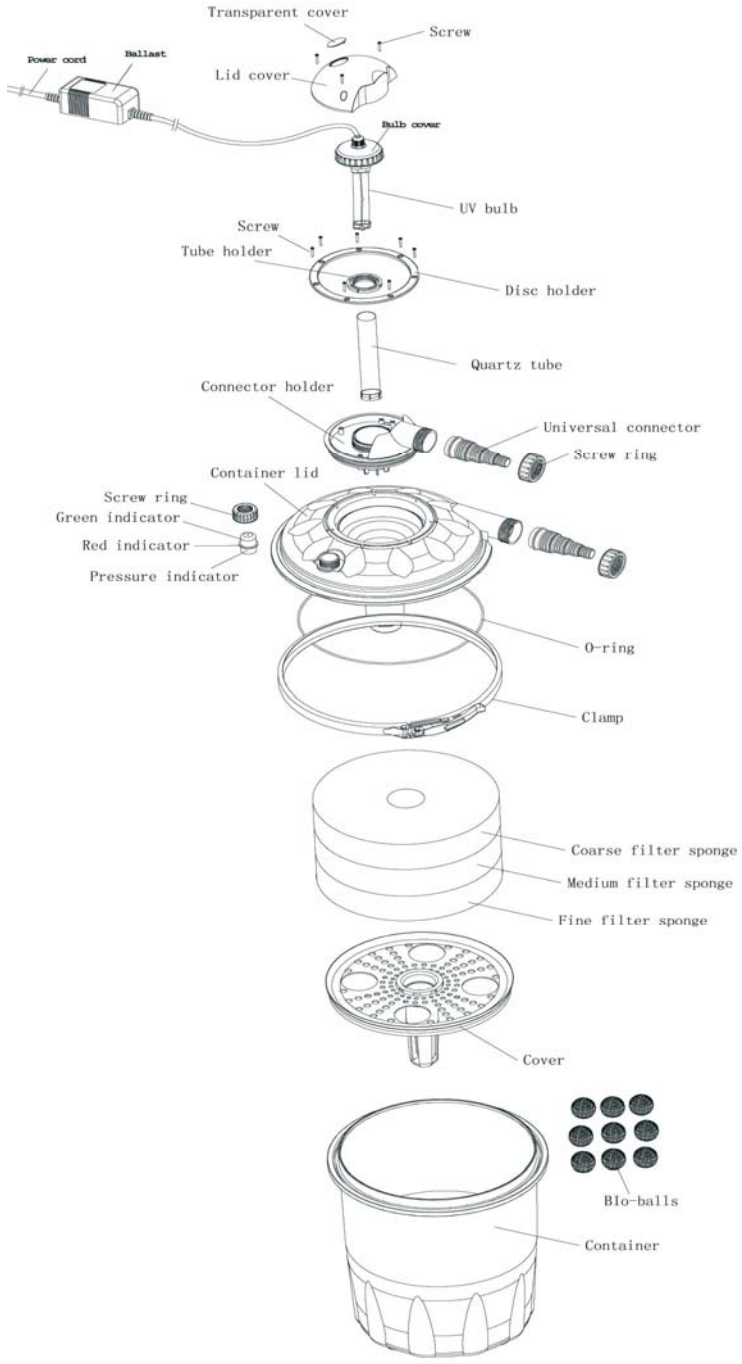
2. Re-assemble the bulb holder into the lid in reverse order, refit the bulb cover, taking time to ensure the small rubber grommet is correctly positioned to prevent water ingress. Secure the centre cap with the 3 screws and connect to the power supply.

SPARE PARTS AVAILABLE:

APF20 & 30 - FILTER FOAM SET – FF2
APF20 UVC BULB REPLACEMENT – UVCAPF20-9W
APF30 UVC BULB REPLACEMENT – UVCAPF30-11W

For a detailed view of the component parts, please see overleaf.

Exploded diagram of APF20/APF30 Filter assembly (figure 3)



LIMITED WARRANTY

This product is guaranteed against material or manufacturing defects for a period of 2 years from the date of purchase The guarantee covers the substitution of defective parts EXCLUDING the UVC bulb which is a service item. This does not affect your statutory rights.

Liability cannot be accepted for personal or property damage due to accident, improper installation or use or as a result of a defect. The guarantee is limited to a replacement/repair if deemed to be faulty.

DISPOSAL: Do not dispose this product in household waste.

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