

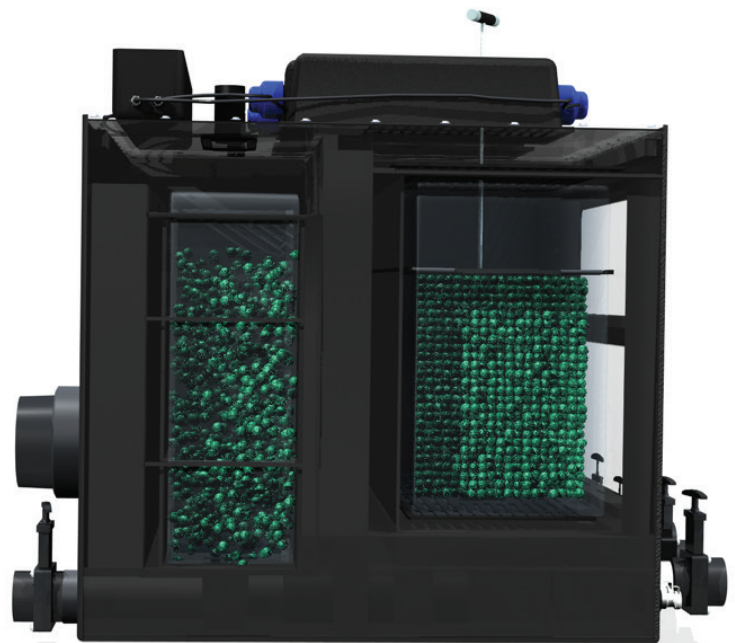


THE QUBE

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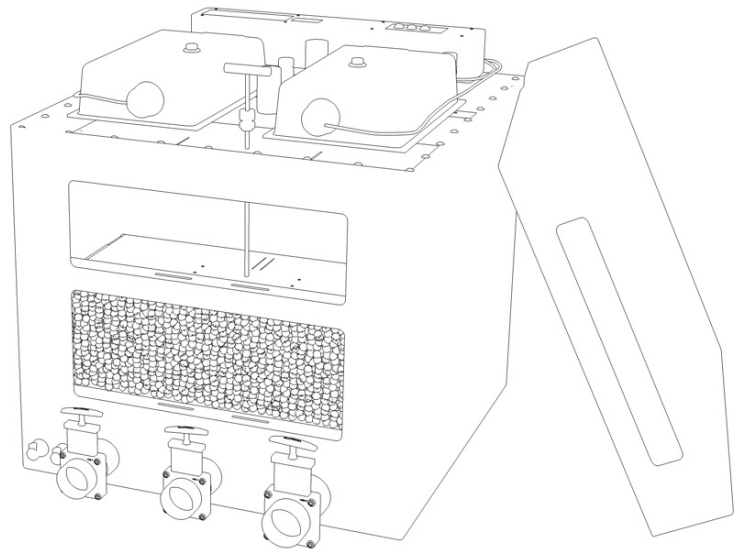
BIO-QUBE INSTALLATION GUIDE

- 1 The Qube filter units should be fitted on an even level floor or on a raised Dias that completely supports the bottom of the unit.
- 2 The Qube 600 & 800 gravity/pump fed units should be fitted no lower than 40cm below the water level.
- 3 The Qube 600 & 800 pump fed units can be fitted above ground level as well as below the water level, they can be sited a maximum of 40cm below the pond level as long as they have an open ended water return. Units can also be fitted with a water return below the surface level as long as the return is no more than 3 metres long and is approximately 15cm below the water surface.
- 4 The Qube 300 & 400 gravity fed units should be fitted to a maximum of 50cm below the water level.
- 5 The Qube 300 & 400 pump fed units can be fitted above ground level as well as below the water level, they can be sited a maximum of 40cm below the pond level as long as they have an open ended water return. Units can also be fitted with a water return below the surface level as long as the return is no more than 3 metres long and is approximately 15cm below the water surface.
- 6 The Qube filter units have been designed to work with low wattage recirculating pumps, but the gravity fed units can be used with more powerful pumps. The pump fed systems should not be used with this type of pump and should only be used with low wattage recirculation pumps.
- 7 The Qube gravity fed units have a high flow rate; the recommended flow rate for the 800 unit is 2,400 gallons per hour (10,910 lph). The recommended flow rate for the 600 unit is 2,000 gallons per hour (9,000 lph).
- 8 The recommended flow rates for the pump fed systems are a maximum of 2,400 gallons per hour (10,910 lph) for the 800 unit with 2" pipe returns. If the pipe work is reduced to 1.5" the maximum flow rate should not exceed 2,000 gallons (9,000 lph). The maximum flow rate for the 600 unit is 2,400 gallons per hour (10,910 lph) with 2" pipe returns. If the pipe work is reduced to 1.5" the maximum flow rate should not exceed 1,500 gallons (6,800 lph). The maximum flow rate for the 400 units is 1,500 gallons per hour with 2" pipe returns; if the pipe work is reduced to 1.5" the maximum flow rate should not exceed 1,250 gallons per hour (5,682 lph). The maximum flow rate for the 300 unit is 750 per hour (3,375 lph) with 1.5" pipe returns. If the pipe work is reduced to 1.4" the maximum flow rate is 500 gallons per hour (2,273 lph).



THE QUBE

- 9 The pump fed 400, 600 and 800 Qube filters come with 2" outlets it is not advisable to reduce these if you are using the maximum flow rate. You can however reduce the outlet pipe to 1.5" if the maximum flow rate is reduced to the recommended lower flow rate, and pipe runs are kept within the guidelines.
- 10 The pump fed 300 units has a 1.5" outlet and if fitted to a pond should not be reduced to less than 1.4" pipe work. If fitting to aquaria the outlet can be reduced as long as the inlet pipe is kept to a minimum so as not to create back pressure on the unit.
- 11 The Qube 300 & 400 gravity units can also have high flow rate each capable of having the capacity to flow 2,000 gallons per hour (9,000 lph) for the 400 and 1,250 gallons per hour (5,682 lph) for the 300 if used as biological water polishers.
- 12 Pump fed units should not be used on blade type waterfalls if the pipe connections are less than 1.5". The Qube units are sealed units and should not be pressurised. Pressurising the units by reducing the outflow can cause irreversible damage and would not be covered under the warranty.
- 13 When installing The Qube filter units on existing ponds with dirty water, or blanket weed, it is important to clean the units on a daily basis. If the blanket weed has overrun the pond it may become necessary to remove the lid and clean the inside of the unit. Once the pond has cleared normal cleaning can take place and this should be carried out once or twice weekly if the pond is free of blanketweed and is clean. The units can be left unattended for up to a month if necessary.
- 14 Pump fed units that are fitted on dirty ponds must also be cleaned on a daily basis until the pond has cleared. If the pond has blanket weed it is not advisable to leave the units unattended whilst away. The pump fed units are fitted with a bypass should they become blocked. This allows time to clear any blockages without pressurising the units. If you are away, make sure the unit is regularly cleaned by a member of the household or friend. Also the installation of a proper strainer to the suction side of the pump would eliminate this problem.
- 15 Pump fed units, if fitted above the water level, should have a non-return valve fitted. This will prevent the water syphoning back to the pond in the event of a power failure. Pump fed systems with long pipe runs need an anti-syphon valve fitted into the exit pipe. This feature prevents the water syphoning from the front of the unit when either the pump is switched off or a power loss is experienced.
- 16 All Qube units are fitted with MTV's (Mechanical Tri-Valves). These valves operate on three levels; firstly they create a seal to prevent water escaping, secondly they allow air to be taken into the unit when draining water to waste and thirdly they allow air to be expelled on cleaning.



- 17** All Qube units, except the 300 unit, have slide valves fitted to the waste systems. This is done purely for cosmetic reasons. It is recommended that all waste systems be joined into one manifold and a double union ball valve be fitted before going to the waste pump or sewer.
- 18** The Qube units have been designed to be installed almost anywhere. The units can either be fitted below ground in filter bays, in a specialist built filter house, or above ground and also exposed to outside conditions. If they are fitted outside it may be necessary to protect them from very cold weather. Exposure to sunlight will also affect the front windows and algae will accumulate. Cleaning is a simple procedure and takes about half an hour. You can eliminate this process by covering the front windows from direct sunlight.
- 19** Like all filters, from time to time it is necessary to strip the filter for maintenance and this should be carried out at least twice a year. The cleaning process can be used with pond water via the inlet water supply and is a simple process.

INSTALLATION

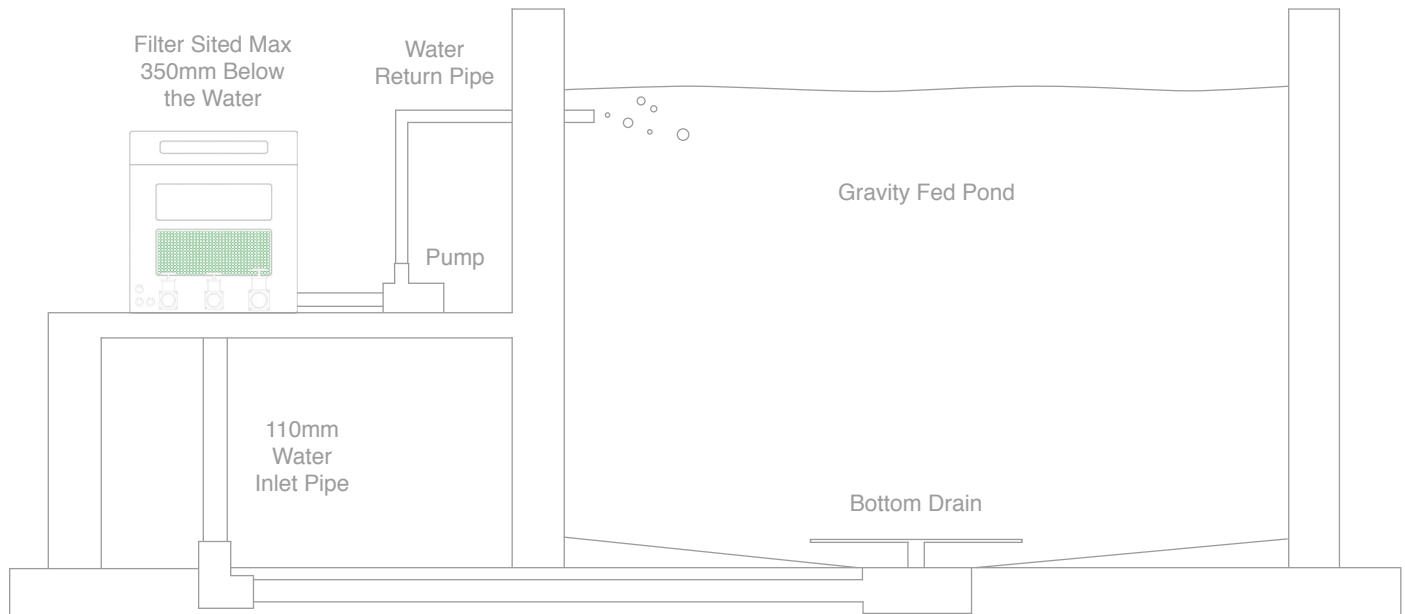
- A** To remove the lid, undo the bolts around the perimeter and centre and place into a container for safe keeping. Undo the bolts on the access panel and remove.
- B** Undo the sliding handle sealing screw located on the lid.
- C** Unscrew the sliding handle and remove from the box.
- D** Remove lid and place in a secure position.
- E** Remove bio-reactor one and two top grills and place in a safe position.
- F** Remove Orbs media from bio-reactor one, place into a bowl, bag or bucket.
- G** Open Bio-reactor one waste valve and purge valve located at the rear of the unit.
- H** Wash out the inside of bio-reactor one with a hosepipe and drain to waste.
- I** Close valves, place the media back into bio-reactor one and screw on the top grill.
- J** Remove the sliding grill plate in bio-reactor two and remove Orbs media into a bowl, bag or buckets.
- K** Remove the self-tapping screws from the internal media box, slide out the internal media box and place in a safe position.
- L** Open bio-reactor two waste valve.
- M** Wash out the inside of bio-reactor one with a hosepipe and drain to waste.
- N** To clean the windows use wet wipes or silicone wipes, this will remove the algae and prevents scratching of the surface.

INSTALLATION CONTINUED

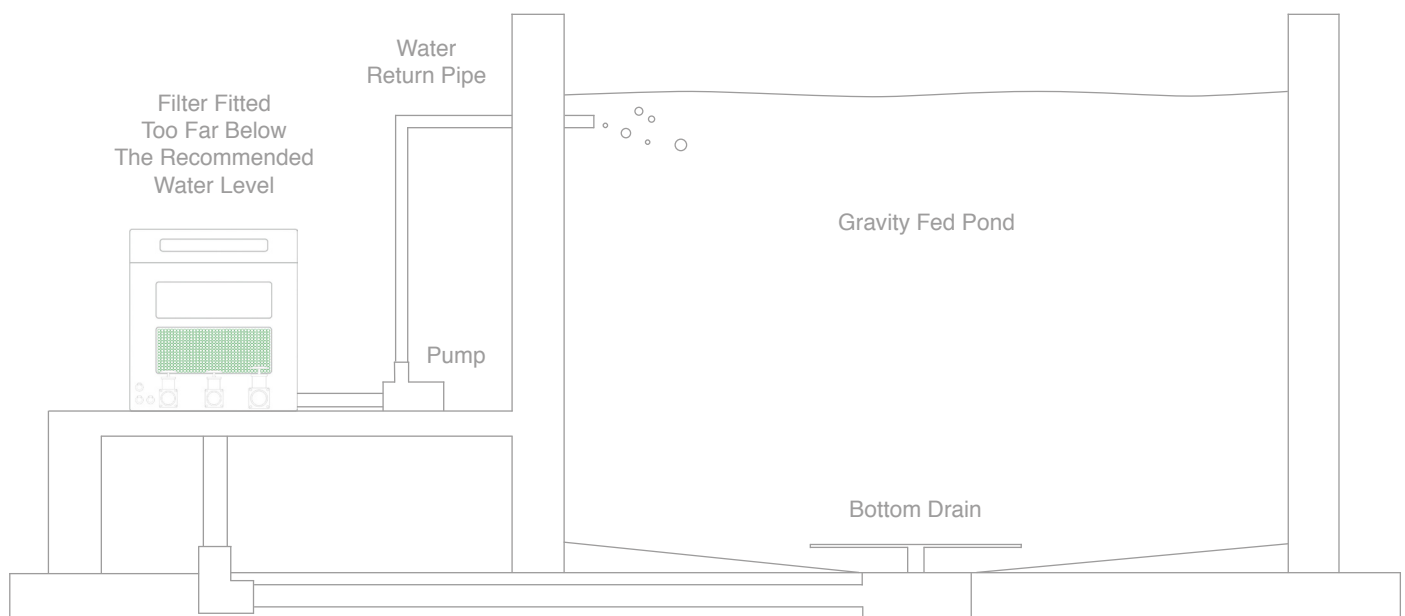
- O** Replace internal media box and screw back into position.
- P** Place the media and sliding grill plate back into bio-reactor two and screw on the top grill plate.
- Q** Make sure the stainless steel sliding rod is fixed to the sliding grill plate before fitting the clear lid.
- R** Fit the clear lid and access panel and secure using the bolts. Torque all bolts down to 2 and locate the sliding handle sealing nut
- S** The Qube 600 & 800 units have dual built in UV systems. The UV bulbs should be changed every eight months for maximum performance. The bulbs are easily replaced from the front of the units.
- T** The Qube 600 & 800 units come with integrated electric's simply supply power to the unit and everything operates from the top of The Qube.



GRAVITY FED SYSTEM - CORRECT INSTALLATION

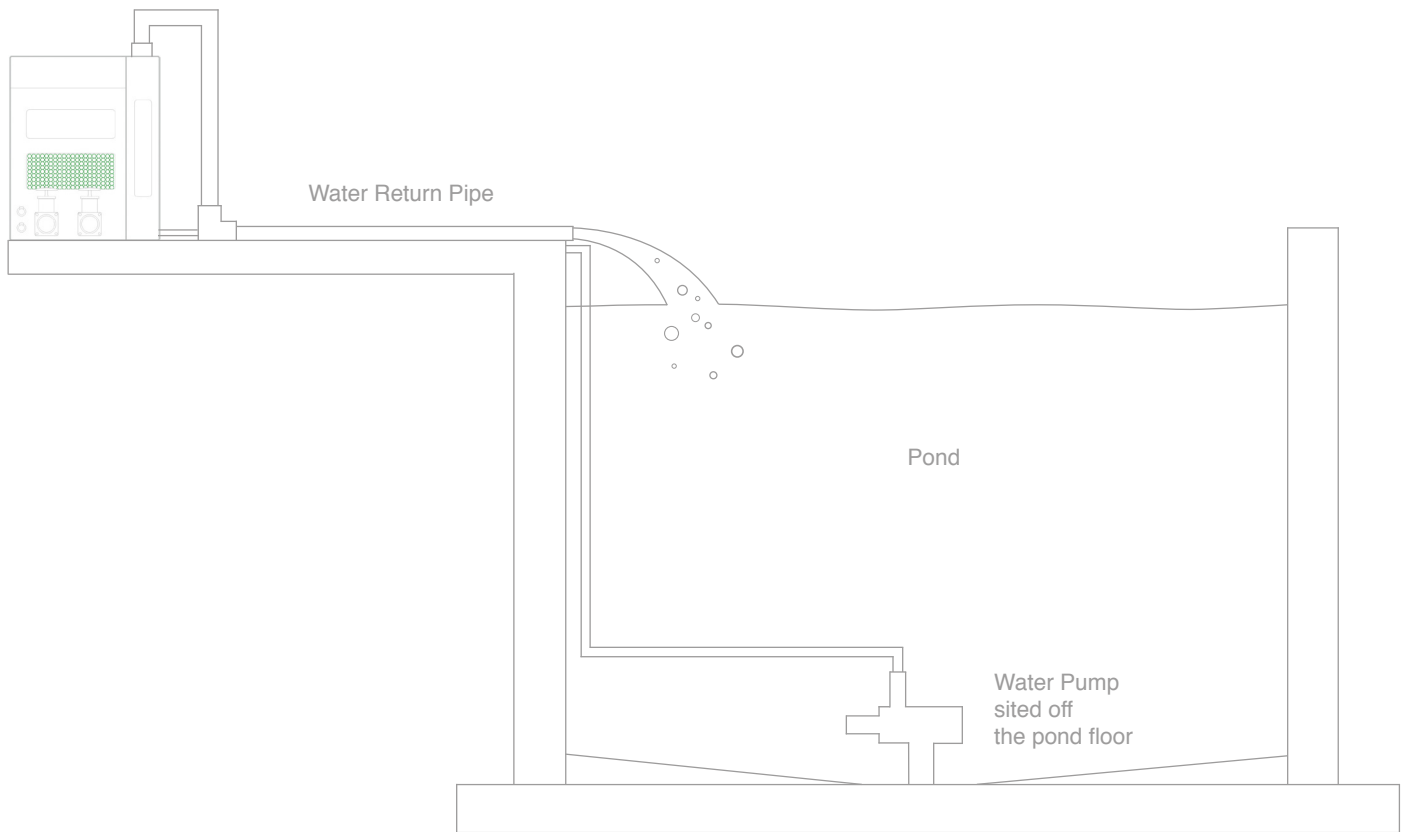


GRAVITY FED SYSTEM - INCORRECT INSTALLATION

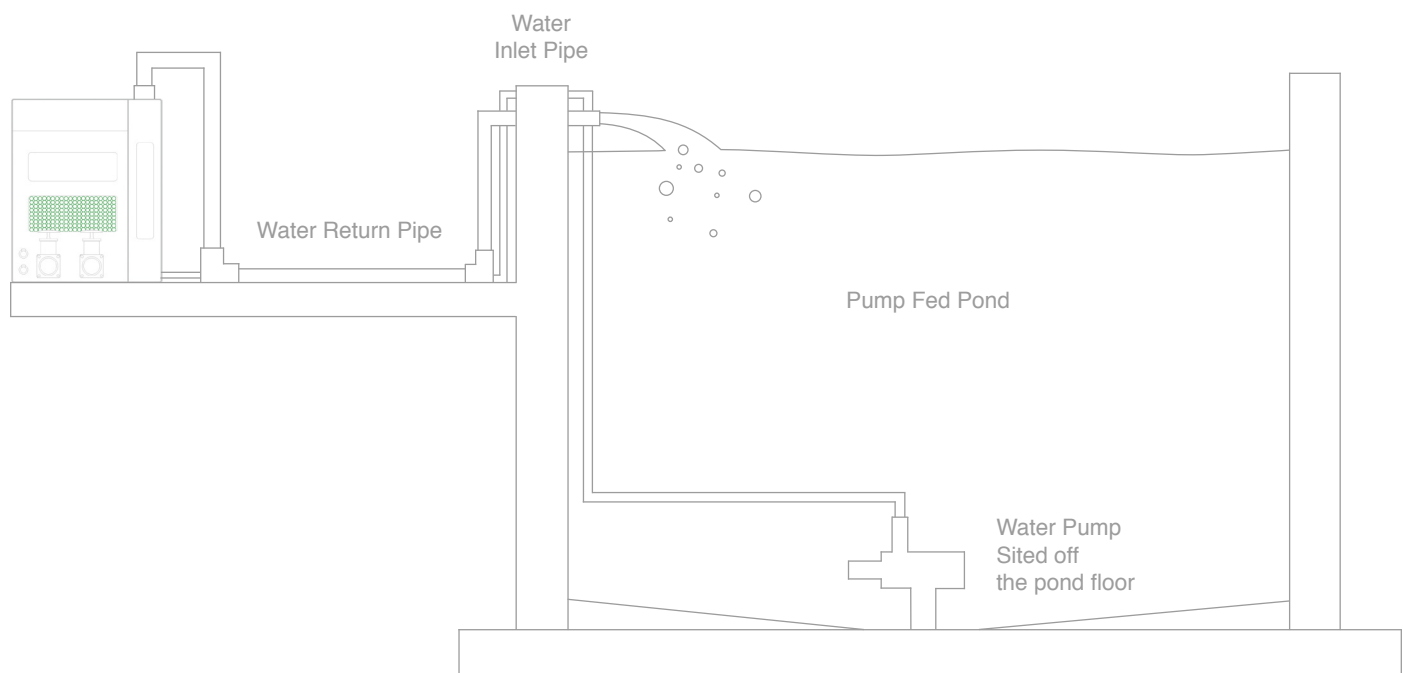


THE GUBE

PUMP FED SYSTEM - CORRECT INSTALLATION



PUMP FED SYSTEM - INCORRECT INSTALLATION



THE GUBE

PUMP FED SYSTEM - CORRECT INSTALLATION BELOW WATER LEVEL

