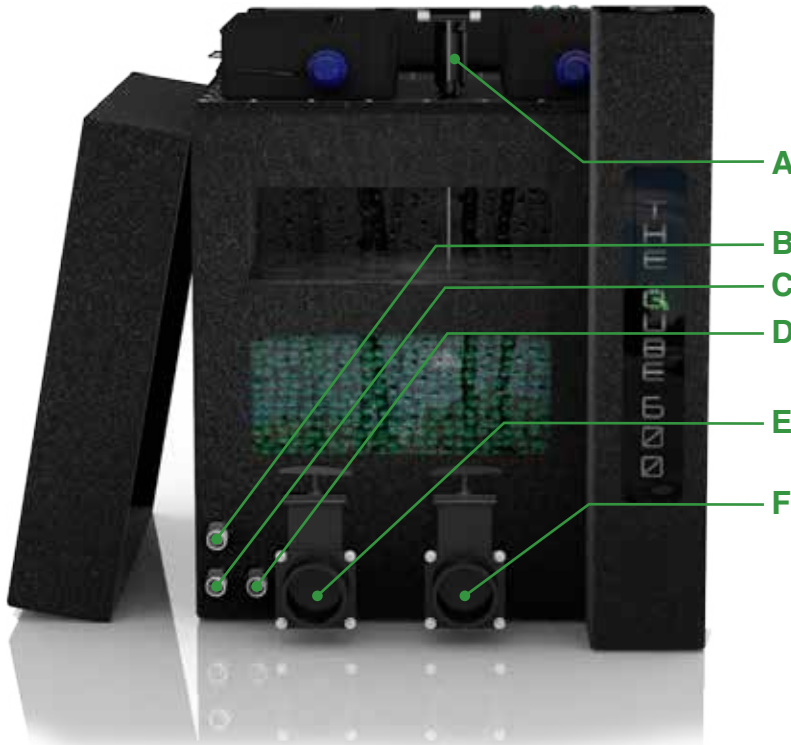


THE QUBE

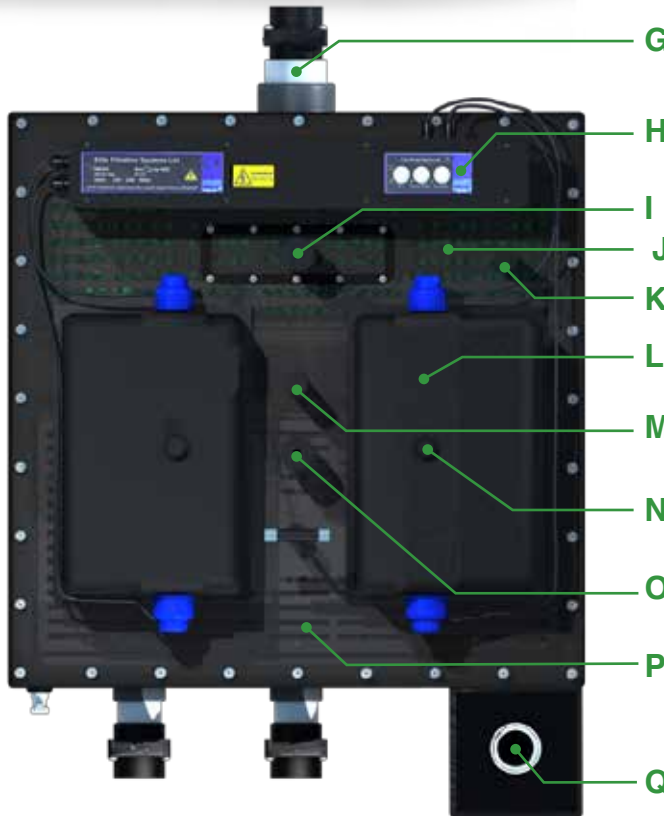
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THE QUBE 600 - USER GUIDE



KEY

- A** Sliding Grill
- B** Drainage Plate Air Valve
- C** Bio Reactor 2 Air Valve
- D** Bio Reactor 1 Air Valve
- E** Bio Reactor 1 Waste Valve
- F** Bio Reactor 2 Waste Valve



KEY

- G** 2" Inlet Valve
- H** Control Switches
- I** Bio Reactor 1 Mechanical Tri Valve
- J** Bio Reactor 1 Top Grill Plate
- K** Bio Reactor 1 Manual Air Valve
- L** UV Box
- M** Bio Reactor 2 Manual Air Valve
- N** Air Bleed Valve
- O** Bio Reactor 2 Mechanical Tri Valve
- P** Bio Reactor 2 Top Grill Plate
- Q** Weir Box



THE QUBE 600 - USER GUIDE

Pump Fed Filling Instructions

- 1 Open the Manual Air Release Valves located on top of the unit. **(K) (M)**
- 2 Switch on the water pump. (Control switches) **(H)**
- 3 Partially open the 2" Inlet Valve **(G)** (only open the valve enough to allow a small amount of water to enter the unit). This allows trapped air to escape through the manual air release valves and Mechanical Tri-Valves.
- 4 When the water level rises up to Bio-reactor one's top grill plate **(J)** close the rear Manual Air Release Valve. **(K)**
- 5 When the water level rises up to Bio-reactor two's Top Grill Plate **(P)** close the front Manual Air Release Valve. **(M)**
- 6 Carry on filling the unit until the Mechanical Tri-Valves seal themselves **(I) (O)**; this happens when a small white ball appears at the top of the valves.
- 7 Open the Air Bleed valve on top of the UV boxes **(N)** to expel the remaining air from inside the unit. It is advisable to do this one UV unit at a time. Open the 2" inlet valve **(G)** until the desired flow rate is achieved.



Pump Fed Cleaning Instructions

Cleaning Bio-Reactor Two

- 1 Switch off the main water pump **(H)** and close the inlet valve. **(G)**
- 2 Switch off the UV. **(H)**
- 3 Open Bio-reactor two's Waste Water Valve **(F)** (middle valve) and allow the water level to drop just above the top grill plate, approximately 10 to 15mm.
- 4 Close Waste Water Valve. **(F)**
- 5 Open Bio-reactor two's Manual Release Valve (very important). **(M)**
- 6 Pull up the Sliding Grill via the handle on top of the unit. **(A)**
- 7 Switch on your air pump (max 90 lpm) plug the airline into the bottom left hand air valve **(C)**; this supplies Bio-reactor two's air cleaning system.
- 8 The Orbs media will start to bubble and rotate; this dislodges debris from the media.

- 9 After two to three minutes, partially drain to waste by opening the Waste Water Valve **(F)**. Allow the water level to drop until the media stops bubbling.
- 10 Unplug the airline (it is important to unplug the airline when refilling). **(C)**
- 11 Refill Bio-reactor two by switching on the pump **(H)** and partially opening the 2" Inlet Valve **(G)**. Stop the pump and close 2" Inlet Valve when the water level is approximately 10 to 15mm above the grill.
- 12 Repeat the cleaning process of Bio-reactor two until the Orbs media are clean. Once you are satisfied they are clean you can fully empty Bio-reactor two to waste and close the Waste Water valve. **(F)**

Pump Fed Cleaning Instructions Cleaning Bio-Reactor Two

- 1 Open Bio-reactor one Waste Water Valve **(E)** (left hand valve) and allow the water level to drop just above the top grill plate **(J)**, approximately 10 to 15mm. If the water level is too low switch on the pump and partially open the 2" Inlet Valve **(G)** until the desired level is reached. Close the valve and switch off the pump. **(H)**
- 2 Open Bio-reactor one's Manual Release Valve (very important). **(K)**
- 3 Switch on your air pump **(H)** and plug the airline into the bottom right hand air valve **(D)**. This supplies Bio-reactor one's air cleaning system.
- 4 The Orbs media will start to bubble and rotate; this dislodges debris from the media.
- 5 After two to three minutes, partially drain to waste **(E)** by allowing the water level to drop until the media stops bubbling.
- 6 Switch on your air pump **(H)** (max 90 lpm) plug the airline into the bottom left hand air valve; this supplies Bio-reactor one's air cleaning system.
- 7 Switch on the water pump **(H)** and partially open the 2" Inlet Valve **(G)** fill to approximately 10 to 15mm above the top grill plate **(J)**. Close the valve and switch off the pump.
- 8 Plug in the airline. **(D)**
- 9 Repeat the cleaning process of Bio-reactor one until the Orbs media are clean. Once you are satisfied they are clean you can fully empty Bio-reactor one to waste. **(E)**
- 10 Unplug the airline. **(D)**
- 11 Switch off the air pump **(H)**
- 12 Switch on the water pump **(H)** and partially open the 2" Inlet Valve. **(G)**
- 13 When the water level reaches Bio-reactor one's top grill plate **(J)**, close Bio-reactor one's Manual Release Valve **(K)**.

- 14 Carry on filling the unit until the water level reaches Bio-reactor two's top grill plate **(P)**.
Close Bio-reactor two's Manual Release Valve **(M)** . The Mechanical Tri-Valves will seal themselves.
- 15 Push down the Sliding Handle. **(A)**
- 16 Open the Air bleed Valve on top of the UV boxes to expel all the air from inside the unit.
It is advisable to do this one UV unit at a time. **(N)**
- 17 Finally, open the 2" inlet valve until the desired flow rate is achieved. **(G)**

Rinsing Bio-Reactor Two

- 1 Switch off the main water pump **(H)** close the 2" inlet valve **(G)**
- 2 Switch off the UV. **(H)**
- 3 Open Bio-reactor two Waste Water Valve **(F)** (middle valve) allow the water level to drop to approximately 100mm from the bottom of the unit.
- 4 Close Waste Water Valve. **(F)**
- 5 Open Bio-reactor two Manual Release Valve (very important). **(M)**
- 6 Switch on your air pump **(H)** and plug the airline into the top left hand air valve **(B)**. This supplies Bio-reactor two's base cleaning system.
- 7 Any build up of debris will be agitated and can then be removed to waste by opening the middle waste valve. **(F)**
- 8 Switch on the water pump **(H)**, partially open the 2" Inlet Valve **(G)** and fill to the same level as before. Close the valve and switch off the pump.
- 9 Repeat this process until the water is visibly clear.
- 10 Switch on the water pump **(H)** and partially open the 2" Inlet Valve. **(G)**
- 11 When the water level reaches Bio-reactor two's top grill plate **(P)**, close Bio-reactor two's Manual Release Valve **(M)**.
- 12 Carry on filling the unit until the water level reaches Bio-reactor two's top grill plate **(P)**.
Close Bio-reactor two's Manual Release Valve. The Mechanical Tri-Valves will seal themselves.
- 13 Open the Air Bleed Valve on top of the UV boxes to expel all the air from inside the unit.
It is advisable to do this one UV unit at a time. **(N)**
- 14 Finally open the 2" inlet valve until the desired flow rate is achieved. **(G)**

TROUBLESHOOTING

Water returns to the pond before the unit is full.

The slide valve was opened too fast when filling. Opening the valve too much does not allow the air to escape and is replaced by the water.

When cleaning the unit, water is returned back to the pond.

The manual air release valves are not open fully. The incoming air is not escaping fast enough, forcing the air downwards and pushing the water back through the return pipe.

Can I fit a valve on the return pipe?

This is not advisable. You could fail to re-open the valve after cleaning. If you then switched on the main pump, back pressure would occur and damage would be caused to the unit.

When cleaning bio-reactor two the water level rises, water exits the manual air release valve and the ball seals the Mechanical Tri-Valve.

If you see the water level rise when cleaning bio-reactor two drain some water to waste. Maintain a 10 to 15mm water level above the grill plate when cleaning.

When I switch off the pump, the unit syphon's back to the pond.

When installing the bio-qube units above ground it is necessary to install a vacuum release valve. This valve should be fitted immediately after the pipe exits the unit.

