Siphon Starter

S ScottyDS

VIEW IN BROWSER

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Summary

Update:19/09/2019: The Siphon starter works well...

Household > Outdoor & Garden

Tags: aquaponics siphon aquaponic

Update:19/09/2019:
The Siphon starter works well... But unlike the hacked PVC one, it works too well at redirecting the water flow. The water comes out with such a force that it sprays in a large circular pattern due to the fillet in the bottom, completely missing the IBC Sump. I have added a deflector which I will upload as soon as I am finished testing. The Aeration is fantastic though.

The Head does not work well at all, It seems like the curved shape causes the water to hug the pipe wall and therefore needs a significant inflow to get the water seal to work as per Affnan's research. The large water in-flow does not allow the siphon to break.

The 32mm pipe may be adding to the issue. (The previous hacked PVC one was a 25mm pipe.) More to follow.....

I have had trouble getting the bell siphon in my chop and flip IBC aquaponics set up to function reliably. It regularly failed to start, and then when I cranked the water flow up, it never stopped. I stumbled across a

youtube video by Glenn Matinez of Olomana Gardens in which he shows his take on a siphon starter (https://www.youtube.com/watch?v=aeKODBAZ74E). I hacked one together using PVC pieces, and it workd flawlessly for about 2 years. Now that I have a 3d printer, and am expanding the unit I designed and printed one to be used with a 32mm od pvc pipe.

It does need better design work, as the bottom champher makes for a rough print. It also needs supports for the center piece. A flange to stop the pipe going all the way through would also be nice.

29/09/15: Added pictures showing complete bell siphon inner tube with head for better flow. Scaled down version of https://www.thingiverse.com/thing:3665523 to fit 32mm pvc pipe.

Also showing https://www.thingiverse.com/thing:3745803 remixed to fit 32mm pipe through the lid of a 1000 liter IBC.

Print instructions

Unassociated tags: Bell Siphon

Category: DIY Summary

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Print Settings

Printer:

i3 Clone

Rafts:

No

Supports:

Yes

Resolution:

0.3mm

Infill:

20%

Filament: Wanhao PLA Red

Notes:

Printed with 0.4mm nozzle.

Model files

siphon_starter.stl

Find source .stl files on Thingiverse.com

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