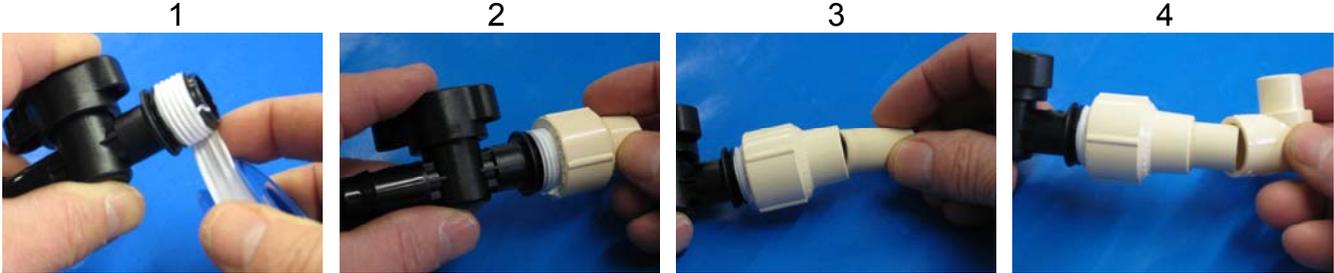


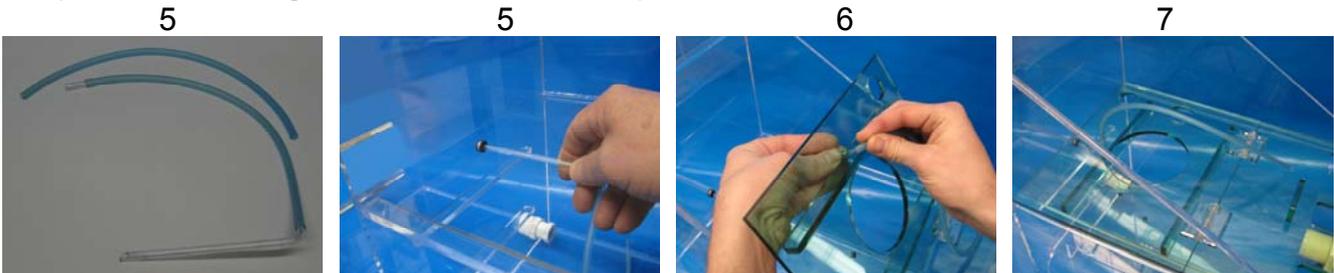
VT-2570 Set Up Instructions (Sump Mount 2010 EXT)

****NOTE # 1**** Some Intake plumbing parts will operate under water pressure, therefore set-ups with any such fittings that are exposed out side of a sump or aquarium may require sealing with Clamps or PVC cement. When using cement, parts become permanently affixed and cannot be dismantled without damage. Therefore make certain that you follow set-up instructions *in the proper sequence* for your particular choice of set-up application. Do Not allow PVC cement to contact any acrylic. Any exposure will cause the acrylic to crack.

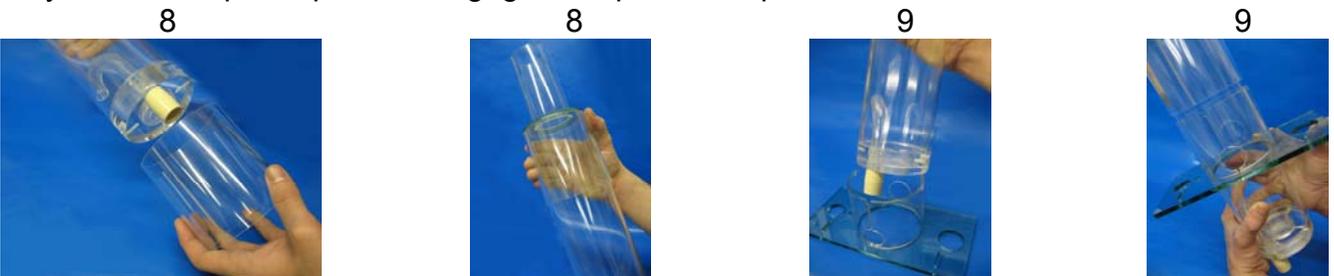
1. Black intake control valve, wrap threads with Teflon tape.
2. ½" Female Adapter. Lightly hand tighten valve it until seals against rubber washer inside of adapter.
3. ½" x 1⅛" long connecting pipe. Insert into female adapter. (Refer to NOTE # 1)
4. ½" Street Elbow 90°. Slip over connecting pipe pressing together firmly. (Refer to NOTE # 1)



5. Air injector tube (Blue). From the sump side, insert pointed end of the ridged tube in rubber grommet through the filter center wall with bent end pointing downward into the sump.
6. Insert other end through sump lid and attach second blue airline. Then to air pump.
7. Sump Lid. Mount on guide rails and slide into place.



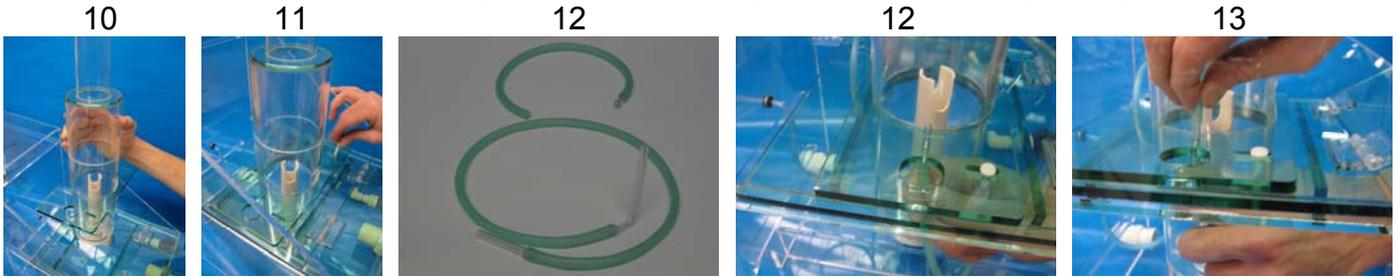
8. Acrylic Spacer Sleeve. Install over bottom of Main skimmer body and slide up to top until it stops.
9. Base. Line up the skimmer intake fitting with split side of base Installing over bottom of Main skimmer body and slide up to top until it engages the previous spacer.



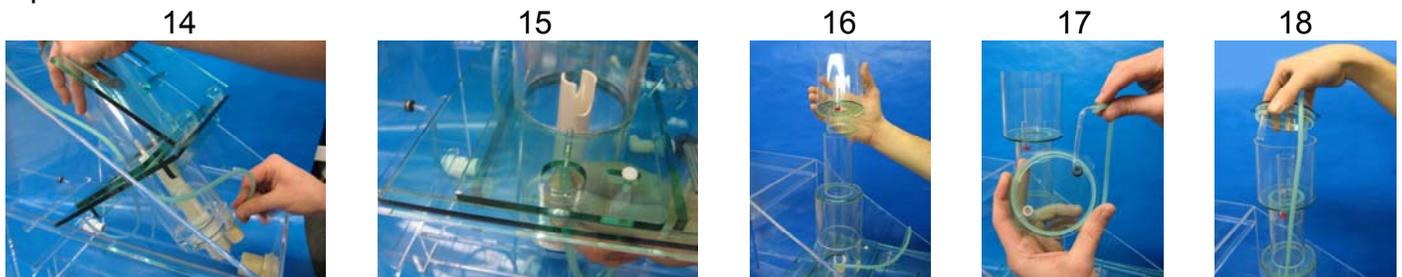
10. Mount Skimmer. Slid through the large hole in the sump cover until it rest on filter sump lid.
11. A-line all holes and insert nylon machine mounting screws through the top side.

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12. Skimmer Vacuum airline. From the under side of the sump lid, Insert the ridged air connector of the short green section of airline through the sump lid and base.
13. Connect the open end of the longer airline to the ridged piece protruding through the sump lid.



14. Connect the ridged part of the other end of the short green vacuum airline into the hole nearest the water intake fitting on the bottom of the protein skimmer reaction chamber. This is supposed to be a tight fit and will only insert approximately $\frac{1}{8}$ ". Use a slight twisting motion when pushing inward. (DO NOT GLUE OR SILICONE THIS CONNECTION)
15. Using the nylon wing nuts provided, secure the skimmer base to the filter sump lid.
16. Skimmer Collection Cup. Install into skimmer throat pushing down until it rest on top.
17. Vacuum Line. Install ridged section into the rubber grommet through the skimmer cup lid pushing in until the bent portion of the ridged airline is extending slightly above the rubber grommet.
18. Collection Cup Lid. Insert into the collection cup and ensure that the tube in the previous step is pushed down even with the bottom of the lid vent tube.

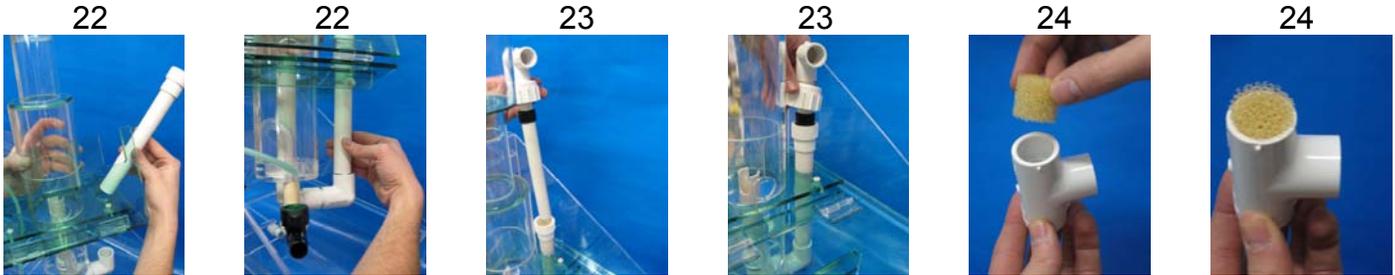


19. Water Control Valve. Pointing toward the water pump source, insert the male end of the 90° Street Elbow into the fitting on the bottom of the protein skimmer reaction chamber pushing in far enough so the valve will not contact the bottom of the wet dry filter. (Refer to NOTE # 1)
20. Adjustable exhaust assembly. Apply Teflon tape to the threads of the rounded male adapter fitting. And screw into the $\frac{3}{4}$ " 90° elbow.
21. Install male adapter over the $\frac{3}{4}$ " 90° Street Elbow that is on the bottom of the protein skimmer reaction chamber pressing together firmly. (There *will not* be any water pressure in this connection)



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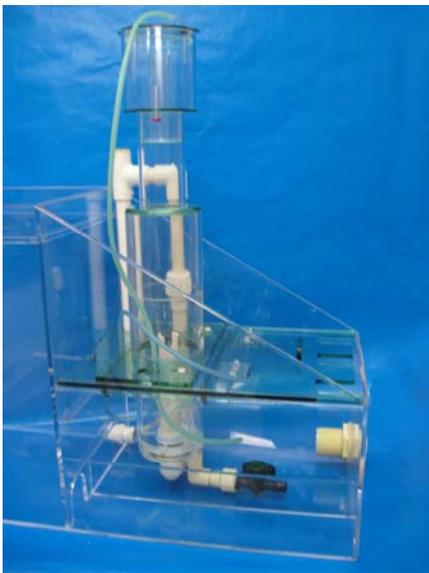
22. Water Exhaust Standpipe. ($\frac{3}{4}$ ") Insert through access hole in the sump lid and press firmly to secure into the $\frac{3}{4}$ " 90° exhaust elbow.
23. Water level Adjustment extension tube. ($\frac{1}{2}$ ") Insert into the Water exhaust standpipe and begin to thread nut to secure. (DO NOT TIGHTEN)
24. Foam Splash Back Arrester. Insert into one end of the $\frac{1}{2}$ " PVC tee until flush with top (NO FURTHER)



25. Horizontal Reach tube. Insert 2" section of $\frac{1}{2}$ " PVC pipe to side of the $\frac{1}{2}$ " PVC tee pressing together firmly.
26. Vertical Drain Tube. Insert 10" section of $\frac{1}{2}$ " PVC pipe to the $\frac{1}{2}$ " PVC tee opposite the foam arrester end pressing together firmly.
27. Drop the Vertical drain tube through the hole in the filter sump lid. And insert the 2" Horizontal Reach tube into the open end of the $\frac{1}{2}$ " PVC tee pressing together firmly.



28. Lower the Water level Adjustment extension tube to its lowest position and gently snug the lock nut to secure into position.
29. Slide the filter sump lid into position.
30. The Influent control valve should be aligned with the center cut-out in the filter sump lid.



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31. Connect influent water source to control valve.
 - a. From external water pump or return line manifold, plumb through access cut-out in hinged filter sump lid.
 - b. From submersible water pump or return line manifold, plumb direct to control valve. The control valve is flexible and may be rotated to suit the needs of your plumbing requirements.

Operating Instructions

****Important please read**** Aqua-Link ADP #2570 Venturi Protein skimmer is known world wide to be the most versatile, highly functional and easiest protein skimmers to adjust and maintain bar none. The independent operational characteristics allow the versatility to be setup and operated under multiple applications such as;

- A free standing model (**outside of a** sump, refugium or wet dry)
- A free standing model (**inside of a** sump, refugium or wet dry)
- Sump Mount (**above a** sump, refugium or wet dry)
- (HOB) Hang-On (**Inside or outside** of an aquarium, sump, refugium or wet dry)

A pressurized water source is necessary but it does not require a pump dedicated for just the skimmer. This makes it less expensive to purchase and also will lower ongoing operational cost.

Adjusting this skimmer is extremely simple. There are only 2 adjustments which are entirely relevant to your set-up application and the pressurized water source you will be utilizing. The 2 adjustments are water influent (coming in) and effluent level setting (freely draining out).

1. Begin by adjusting the Effluent water exhaust assembly to its lowest position without restrictions.
2. Slowly turn on the influent water control valve and increase until the venturi begins creating a vacuum mixing air with the water.
3. Continue to increase influent flow to obtain a high air/water ratio inside of the wide reaction chamber.
4. Once the air mixture ratio is optimal, extend the effluent exhaust tube slowly beginning to raise the **WATER LEVEL**, (not the foam). Adjust in small increments so not to over steer until the **WATER LEVEL** moves up into the 2½" narrow throat and reaches the lowest part of the collection cup insert sleeve. Lightly tighten the lock nut to secure the effluent exhaust extension.
5. Take note of water exiting the exhaust. If excessive dissolved air is exiting, then back off the water flowing in until acceptable. Then re-adjust the water level in the skimmer using the effluent exhaust tube.
6. Monitor over the next few hours. Remember, Be Patient!! The objective is to extract Protein, not water. Because protein skimmers need priming to function well, final adjustments may take hours if your aquarium is already established and heavily populated, days to prime if lightly populated., or weeks if set up on a new, non-established aquarium.
7. If you notice water or very lightly discolored liquid, slightly lower the water level in the throat tube in increments using the effluent water extension until the foam rising through the lift tube appears dry and brown in color.
8. Set it and forget it. Once set, you should not have to re-adjust unless the influent water pressure changes or it is accidentally knocked out of adjustment.

****Note**** On a properly set-up biological eco system you will notice that the protein skimmer will only extract proteins intermittently due to proteins being converted by bacteria. The skimmer will then only capture excessive spikes not consumed by the bacteria in the bio-media, thus stabilizing water quality which is what we designed protein skimmers to accomplish to begin with. That is to aid a wet dry biological filter to complete the nitrogen cycle.