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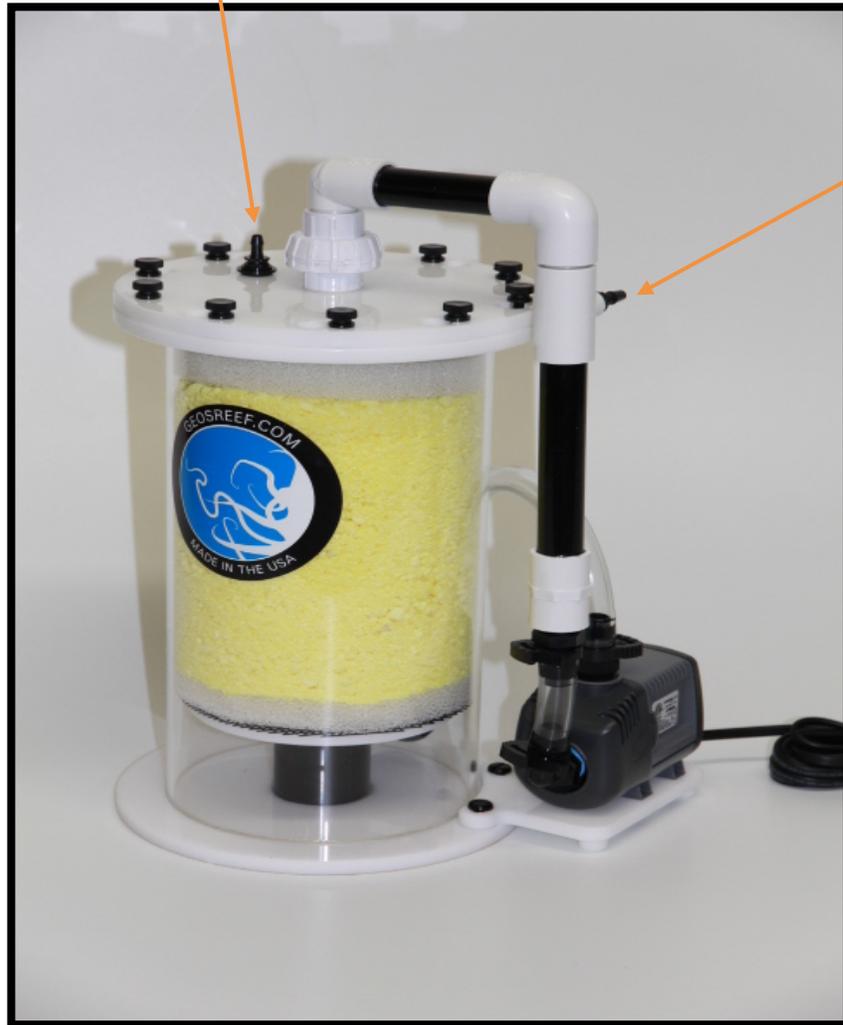
## Nitrate Reducing Reactor Set up Instructions

Once you get the reactor set up and running it will take at least 6 weeks for the reactor to mature. Once you get to this point the reactor will begin to work.

1. Make sure you have a steady feed of water going to the unit. We do not recommend using a feed from a manifold due to the inconsistent flow these may have. Use a feed or peristaltic pump such as Sicce Syncra 0.5. The reactor comes with a tubing harness for trouble free installation. **MAKE SURE** you are not pumping any air bubbles into the reactor. You want **bubble free water** entering the reactor so that the bacteria are consuming nitrates not oxygen.
2. Make sure the effluent/outgoing water is about 3 drops per second. Use the micro ball valve provided on the end of the blue tubing to regulate the effluent. If you smell eggs you are too slow and need to speed the effluent up to 5 drops per second. You will have to tweak this by testing the effluent for nitrates periodically. There is some trial and error to reaching the set point. There are many variables to consider such as bio load and volume of your system. After the first six weeks start testing the effluent for nitrates and adjust from there. If not 0 then go to 1- 2 drops per second. It is better to make small adjustments in the effluent so you do not over shoot your target.
3. Once the reactor kicks in and you reach 0 nitrates you may actually need to increase the effluent to give more food to the bacteria: this may be 4 or more months down the road after the reactor has been running at 0 for some time. This depends on a lot of things most importantly bio-load and water volume.



Output to your sump or aquarium. Use micro ball valve included with reactor to regulate amount of water coming out. This water should be filtered by media like CaribSea ARM small grain in a second reactor such as the GEO SMC415



Input of water from small pump like Sicce Syncra 0.5 Only 100-160 gph is required.