

## MEDIA REACTOR INSTRUCTIONS

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- Remove the lid and disconnect the center tube from the top media plate and coupling assembly. The top
  media plate threads onto the center fitting in the lid, and the center tube friction fits into the slip end of
  the coupling. Depending on the media you plan to use in your reactor, choose the appropriate screen
  and place it over the bottom media plate. The foam pad works best for carbon or GFO, while the mesh
  screen works best for biopellets.
- 2. Lightly place the 1/2" cap located on the base of the reactor on the center tube. This will allow you to pour in media without getting it in the center tube. Replace cap on holder when done.
- 3. Install the other screen under the top media plate in the same manner as the bottom one. You may not need to use a top screen though, depending on buoyancy of the media.
- 4. Align the center tube as close to the middle of the reactor as possible. Check for any grains of media or bits of sand in the o-ring groove before installing the lid. When you replace the lid, the top coupling will engage the center tube, and you will feel resistance as you push the lid into position.
- 5. Check that the o-ring makes a seal all the way around the lid. It is usually only necessary to lightly tighten the thumbscrews.
- 6. Install the supplied silicone tubing and ball valve and connect your pump of choice to the center union. Route the effluent tube back to the sump or tank, ideally away from the intake of the feed pump.
- 7. Plug in pump and regulate the water flow as needed for the style of media. Carbon and GFO should tumble very lightly. Biopellets should tumble more vigorously; they should fluidize so that a reactor filled 1/3 of the way at rest fills 2/3 of the chamber when tumbling.

## Tips, Tricks, and Troubleshooting

- 1. Rinse carbon and GFO by routing the effluent tube into a bucket and running old tank water through the media until it turns clear. Do this during a water change so that you save a few gallons of the water that you are removing to flush through the media.
- 2. If the o-ring leaks, make sure it is free of all debris such as carbon or GFO grit, and try giving it a light coating of silicone grease, available at most hardware stores in the kitchen plumbing section.
- 3. A useful modification to help biopellet media fluidize very evenly is to remove the bottom media plate altogether, and cut the down tube square so it extends to about 1" (2.5cm) from the bottom. Be aware that in order to avoid backsiphoning pellets when the pump is off, you should make sure the output tube is kept below the water level at all times.