

Rochester, September 21, 2013

Step-by-step installation of a Corner HMF

- 1) Measure the inside height from the glass bottom to the underside of the frame. The braces should be close at the top, however, make sure they fit; you cannot easily trim off $\frac{1}{4}$ " from a glass brace if it is too long. Glass braces are better than any plastic or metal, since silicone really does not adhere well to plastic or metal in the long-term. Moreover, the all-transparent look makes it less conspicuous.
- 2) The Standard Corner HMF foam sheet is 10" (25 cm) wide and 2" thick; that allows for a 90-degree bow with 6" wide sides.
- 3) Email me the height measurements and I can make you a custom Corner HMF: the cost is \$3 per inch of height. So for a 55 gal Corner HMF you are looking at $\sim 18" \times \$3 = \54 for the foam and glass braces, with a 12" Jetlifter large the total is \$66. I also have silicone (300 ml) in stock for \$4 or you can go to the hardware store and ask for transparent 100% silicone on acetic acid base (DAP 50 years/GE silicone I). You will need a silicone gun ($\sim \$3-4$ at the hardware store), unless you use a small tube.

A few tips if you have never glued with silicone:

- 1) Wipe the area clean with 70% EtOH (I use denatured cleaning ethanol from the hardware/paint store diluted with water).
- 2) Mark the brace positions 6" away from the corner on the outside of the tank with a permanent marker (so you can wipe it off after installation).
- 3) Lay the tank on its side for gluing. Dry-fit the brace first, so you know it fits. If the silicone seam at the bottom prevents a close fit, move the brace towards the top. I cut it $\frac{1}{4}$ " shorter than the height you gave me on purpose to have some margin. Then take the brace out.
- 4) Put a bead of silicone on the short side of the brace and glue it in. Hold it for a minute. You cannot use clamps since the brace is oval. Let the silicone cure for at least 6 h. Then glue in the other brace. If you smear silicone anywhere by accident, wipe it off with 70% EtOH immediately.
- 4) To create clean seams put another bead of silicone on each side of the braces and smoothen with one swipe using a finger. Make sure you silicone the bottom ends tightly, so that the braces cannot swing like a hinge, especially when they do not touch the bottom. Clean seams prevent algae from growing into the seams and give it a neat look. Let cure for at least 36-48 h before you fit the foam; otherwise, the pressure could move the braces.
- 5) Bend the foam into the corner, and cut a groove where you want to place the Jetlifter. It is important that you cut the groove when the foam is bent, otherwise it will become too wide on the outside radius.
- 6) Ready to go! Place the heater or other equipment in the space behind the corner, so it is out of sight. Now you have a neat filter that will run for many years. Rather than taking the Corner HMF out for rinsing, just occasionally vacuum off the front with a hose when you do water changes.

Summary:

For 2 hours of installation work you save countless hours of dismantling power, canister, sponge, or hang-on-back filters, cleaning out pump drives and hoses, and buying new media all the time. Moreover, you will not have an ugly sponge filter sitting in the middle of the tank. While I like my cubefilters a lot for breeding tanks, I prefer a clean look in the living room.