MY REEF CREATIONS

MR-R Series Protein Skimmer

Congratulations on your purchase of a MRC Protein Skimmer; the finest filtration in the world.

Please read the instructions in its entirety before starting to assemble your skimmer in order to assure proper assembly and operation.

The skimmer comes disassembled for shipping. Refer to these instructions and assembly diagram for set up. Failure to follow the assembly instructions could cause skimmer to malfunction

Section A: Assembly

- Install the provided O-ring gasket in the groove on the top flange of the skimmer body.
- Partially screw the nylon thumbscrews in place (approx ¼ inches).
- Place the upper riser tube on the lower body and turn to lock the upper tube to the body using the nylon screws.
- Hand-tighten the nylon screws. Do not over tighten. The upper tube should now be secured to the lower body.
- Screw the injectors into the 1 inch bulkheads located next to the riser tube on the top of the box. Teflon tape is needed and is already on the injector threads.
- Screw the air valves into the injector tubes. Teflon tape is not needed for the air valves.
- Insert the threaded nipple into the gate valve. Install the gate valve & nipple onto the skimmer box & hand tighten. Do not over tighten. Open gate valve fully. Teflon tape is needed and is already on the threaded nipple.
- Connect the skimmer recirculating pump feeding from the 1" bulkhead located on the side of the skimmer box feeding it to the top of the injectors.

Section B: Skimmer Installation and Operation

The protein skimmer can be used either inside or outside of a sump. Due to the large footprint of the MR-R series skimmers we recommend out of sump installation. Do not raise the water level of the skimmer above the height of the holes found on the Beckett foam head inside the injector assembly. This will cause water to exit via the air valve. Note: the recommended pump is an EXTERNAL pump. DO NOT use this pump inside the sump.

In-Sump Installation

Use only submersible pumps for in-sump applications.

- Connect the gate valve to the skimmer. The gate valve is shipped in the closed position. Open gate valve.
- Place the skimmer inside the sump.
- Connect the skimmer feed pump to the hose barb fitting in the ¾ inch bulkhead located next to base of the injector.
- Make sure all flange screws are tight and that the gate valve, collection cup drain, and air valves are completely open. We recommend using an MRC waste collector. Do not cap off or block the cup drain.
- Turn on the pump and adjust the water level of the skimmer to 2 inches above the skimmer box by slowly closing the gate valve.
- Allow a 24 hour break-in period at this level before adjusting the air valves. After this period the air valves may be adjusted down to decrease bubble size.

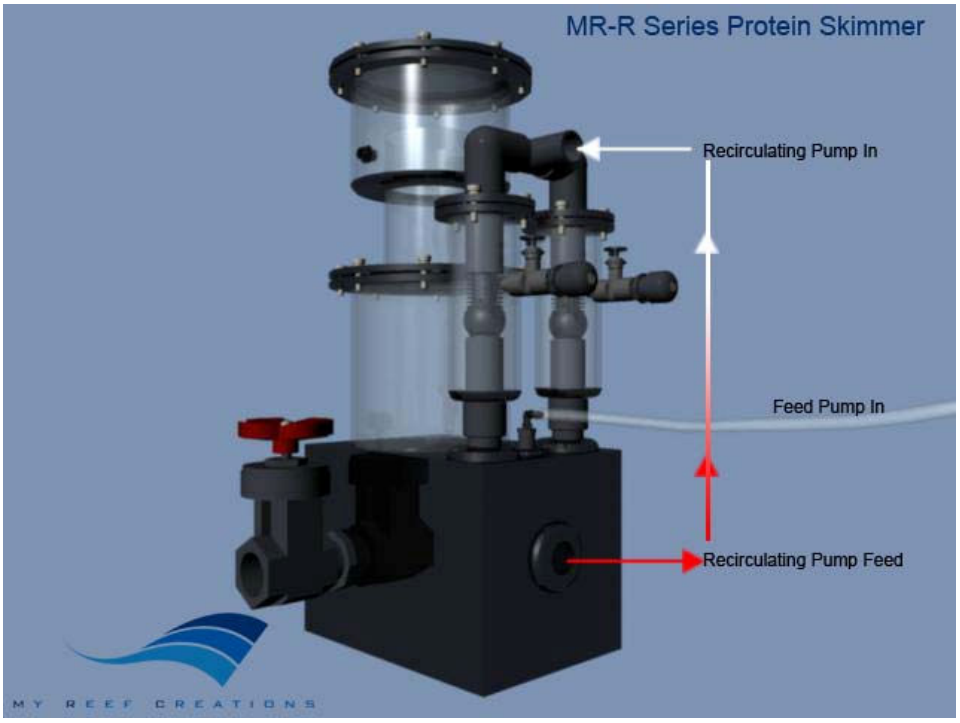
Out Of Sump Installation

Refer to the website for recommended pumps for out of sump applications.

- Connect a 1 ½ drain line from the skimmer to the sump. The gate valve may be connected along any part of the drain line. PVC Cement should be used to connect the parts of the drain line and allowed at least two hours to cure before use. For best results, install the return water line from the skimmer above the water level of the sump. This will eliminate back pressure and make adjusting the skimmer much easier. The skimmer can only drain level or down.
- Connect the skimmer feed pump to the hose barb fitting in the ¾ inch bulkhead located next to base of the injector.
- Make sure all flange screws are tight and that the gate valve, collection cup drain, and air valves are completely open. We recommend using an MRC waste collector. Do not cap off or block the cup drain.
- Turn on the pump and adjust the water level of the skimmer to 2 inches above the skimmer box by slowly closing the gate valve.
- Allow a 24 hour break-in period at this level before adjusting the air valve. After this period the air valve may be adjusted down to decrease bubble size.

Adjusting the Skimming Rate

- Raising the water level of the skimmer or increasing the air flow will cause the skimmer to skim wetter.
- Lowering the water level or air flow will cause the skimmer to skim drier. A combination of the two will allow for the desired skim rate.



Section C: Cleaning the Skimmer

- If the reaction chambers have collected a dark film or sludge, it is time to clean the skimmer. The skimmer will still function while it is dirty, though less efficiently.

Cleaning the Skimmer Body

- Turn off the skimmer pump.
- Loosen the nylon screws that connect the reaction tubes and remove the riser. It is not necessary to remove the screws.
- Loosen the nylon screw and remove the lid for the collection cup.
- Using an acrylic safe pad wipe down the reaction chambers and collection cup and rinse with clean water, removing all waste from the cylinders and cup.
- Reassemble in the reverse order making sure the O-Rings are seated properly.

Cleaning the Injector and Beckett

The injector assembly can easily be disassembled for cleaning and maintenance. This should be done at least once every 2 months or if there is a noticeable decline in bubble output.

- Turn off and disconnect the skimmer pump from the top of the injector.
- Loosen the nylon thumb screws.
- Turn the top of the injector to unlock the Beckett and lift to remove the injector top and Beckett.
- Remove the two O-Rings found on the Beckett.
- Open the Beckett housing and clean to remove any buildup.
- Reassemble in the reverse order (see diagram below).