

## Is an Aquarium Sump Necessary?

### Is it possible to run a large reef aquarium without a sump?

*By Jeremy Gosnell*

Q. Is it possible to run a large reef aquarium without a sump? I travel a lot for business and would like to get rid of the sump attached to my 90-gallon reef aquarium. The external overflow is always losing suction and the sump is flooding onto the floor. This worries me while I'm away. Can I do without it?

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A. The quick answer to your question is yes. A large reef aquarium can run without a sump. In many ways a sump is a convenience for the aquarist, providing a place aside from the main aquarium to work on water quality testing, put in additives and also place needed filtration equipment. In many cases a sump is not necessary, but the added space and water volume do benefit the aquarium. Before you contemplate removing your sump altogether, consider these options.

First, look for an external overflow system that may be less likely to lose suction. Often times power outages, snails and other occurrences can cause a loss of suction, thus producing a flood. There are many external overflows on the market that use pump systems to remove air for the overflow's u-tube, preventing a loss of suction. Using an overflow that is designed in this manner often proves more reliable than the basic models on the market. Also, if you are considering upgrading to a larger reef aquarium you can get one that is predrilled for a sump system. This method of running a sump is practically foolproof and once you have a predrilled reef aquarium it is highly unlikely you will ever settle for less again.

If you just want to remove your sump that is also an option. One thing to remember is that any specific "in-sump" equipment will have to be changed. Often times this means getting equipment that hangs on the back (HOB) of the aquariums. HOB equipment is often times not as efficient or customizable as equipment made for the sump, though some research and careful shopping will allow you to find products that perform well. You can purchase HOB filtration units, refugiums and protein skimmers. Many manufactures are even making HOB UV sterilizers these days. Just remember that all this equipment will clutter your aquarium's back wall and limit space, because many of these units take up a lot of room.

Another thing to look at is what your aquarium's sump is serving as. If it is your reef aquarium's sole filtration unit then I would use a very slow, methodical shutdown. Many sumps have wet/dry units built in and if you were to totally remove that much biological filtration it may shock the reef aquarium into another nitrogen cycle. Many people setup wet/dry sumps then decide they no longer need the bio-balls and very gradually remove them. A similar technique would work in your situation if that is the capacity in which your sump is serving. One thing many sump users don't consider when removing a sump is how the change in water capacity will affect the reef aquarium's overall health. Often, a sump allows aquarists to keep a more heavily stocked aquarium than they typically would, because a sump can add a considerable amount of water volume to the aquarium.

While I do feel sumpless reef aquariums are possible, I would consider ways to keep your sump, before writing it off entirely. I know that using external overflow systems can be worrisome, as these systems rely on siphons to keep water moving out and back into the aquarium. Removing the sump would alleviate that worry though it would also make for a more cluttered and limited reef aquarium; not offering the customization and expansion options that a sump can provide.