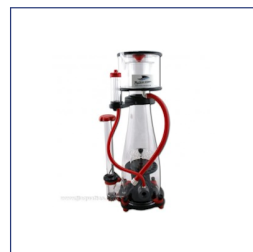


Protein Skimmers

There are two types of wastes the skimmer removes. Those attracted to the air bubbles and those that are not. This is where a better quality protein skimmer comes into play. Typically speaking a skimmer that has the smallest bubbles allows for the most surface area for waste to collect. And secondly you want the rise to be as gentle as possible so the waste that isn't attracted to the air will rise and collect as well.



Some really inexpensive skimmers will have points through the chamber where the bubbles can catch and pop. This is typically found where the transition to the neck happens and where the cup attaches. The cone shaped skimmers help with this somewhat by allowing a really smooth transition to the neck. This sounds great if done correctly.

There are three basic types of protein skimmers:

- Air Stone
- Injection
- Pinwheel

- Air stone skimmers - Old style skimmer not typically used anymore. A more current version of this is the biocube skimmer. These were great at producing small bubbles but didn't move a lot of water and took up a good deal of room. Plus you had to replace the air stones quite frequently to maintain performance.

Protein Skimmers

(con't)



- Injection style skimmers- These are more popular on large tanks and commercial systems. Common versions of these today are ETSS Downdraft, AquaC Spray injection, MRC, Bermuda, and a few others that use spray injectors. These type of skimmers typically can handle larger systems with a smaller footprint. There is nothing wrong with injection style or any other style skimmer. Injection style skimmers are typically louder and use a large pump to create the pressure needed in the system.
- Pin wheel style skimmers are the most popular style skimmers today. Almost everyone in the hobby has, or has had this type of skimmer along the way. This style has allowed us to inject a ton of air into smaller footprint skimmers. Now we can inject too much air and that is a fine balance in today's skimmers. Air to water ratio. The pump can only pull so much. If it's pulling more air, it in most cases is pulling less water. These are cheaper to run and maintain. Popular brands in today's market are Octopus, Bubble Magus, Vertex, Bubble king, ATB, Coralife, JNS (aquamaxx) and many more.

So what skimmer should you buy for your tank? Most manufacturers overrate their skimmers. And you need to consider water throughput just as well as air draw, volume and contact time. From my experience you really don't need a skimmer running twenty g or less. You are much better off doing water changes. You start getting twenty-nine to forty g a skimmer can start to do some good.

Protein Skimmers

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29 to 50g

- Bubble Magus Nac 3 series
- SWC 120
- Tunze 9002 for nanos and 9005 for the heavy 50g load
- Aquac Remora
- Innovative Marine

50 to 75g

- Bubble Magus nac 6
- Bubble Magus curve 5
- Tunze 9005
- Octopus 110/150
- Super reef octo 1000 series
- Reef dynamics rs 80
- Vertex in 80/100

75g heavy stock to 120g

- JNS sk2
- Bubble Magnus curve 7
- Aquamaxx cone2
- Tunze 9010
- SRO 2000 series
- ATB 840 cone



Petware House

Protein Skimmers

(con't)

- ATB 840 cone
- Bubble king Mini 160
- Reef dynamics RS 135
- Seaside Aquatics cs1/2
- Vertex omega 150



125g to 200g these can vary a lot due to stock load differences

- JNS sk3
- Aquamaxx AM250
- SRO 3000 series @ 180g tank size
- ATB 840 / 1050 @ 180g tank size
- Bubble king mini 180/200
- Bubble king Super Marin 200 and heavy stocked 180's and up
- Reef dynamic rs 180
- Bubble Magus curve 9
- Vertex in 280

Now of course this is just a general starting point. Many factors can change what will work for you. This is just a good starting point of skimmers I am familiar with as well.

Protein Skimmers

(con't)

There are many more out now that I just haven't had a chance to play around with yet to give a recommendation. This is short list of skimmers that are tried and true performers. Don't go too large or it won't skim consistently. The protein skimmer is the heart of many hobbyists aquarium. It doesn't have to be but is a simple solution to maintain the high water quality demands of the inhabitants we like to keep. That's what it all about anyways.

