Protein Skimmers FAQs

Drs. Foster & Smith Educational Staff

Established marine aquariums promptly convert ammonia and nitrite into a less toxic substance, called nitrate, through a natural process known as the nitrogen cycle.

Q Can I use a protein skimmer for freshwater aquariums?

A. Generally, protein skimmers are used almost exclusively in saltwater aquariums. Compared to saltwater, the viscosity of freshwater is not conducive to proper bubble production needed for efficient protein skimming.

In low to moderate concentrations, the end product of the nitrogen cycle (nitrate) is not toxic to most fish. However, certain marine invertebrates, such as corals, are sensitive to even low levels of nitrate. They require excellent water quality with low nitrate levels to thrive. A protein skimmer actively removes waste products from fish, plants, and invertebrates (along with any dead organisms or uneaten food) before it has a chance to break down and compromise water quality.

What Does a Protein Skimmer Do?

Similar to the beneficial effects of partial water changes, protein skimmers help prevent nitrate buildup, remove decaying matter and toxins, and replenish oxygen available to fish. By removing these waste materials, protein skimmers also help prevent aggressive algae growth and improve water clarity to enhance light penetration for a brighter, cleaner, and clearer aquarium. With less waste to process, your existing filter will also be able to function more efficiently, reducing the amount of time you have to spend on regular aquarium maintenance.

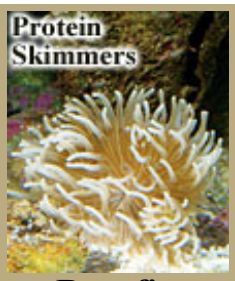
How Does a Skimmer Work?

A protein skimmer is an excellent supplemental filtration device that works by creating tiny bubbles in a reaction chamber. Organic waste materials adhere to these bubbles through a chemical process called adsorption. The bubbles propel the waste materials up to the surface of the reaction chamber where they burst and expel waste into the collection cup. The size and number of bubbles a protein skimmer creates, determines the efficiency of an unit.

Types of Skimmers

There are three basic types of protein skimmers:

- **Air Driven Skimmers** - Usually used in smaller



Benefits

* Remove organic waste
* Decrease aggressive algae growth
* Lower phosphate
* Remove toxins (e.g., from corals)
* Improve water quality and clarity
* Increase oxygen levels

Considerations When Choosing

* Of the three skimmer types, Venturi and Turbo systems are the most effective. Regardless of type, strive to install the biggest skimmer possible that

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aquariums, these skimmers are powered by air pumps to create a column of bubbles that flows against the direction of the incoming water. For this reason they are also called a counter-current system.

- **Venturi Skimmers** - Available in different styles to accommodate aquariums of all sizes, Venturi skimmers mix air with water under high pressure to produce large numbers of protein-removing bubbles.

- **Turbo Skimmers** - Pump-driven skimmers utilizing a special water pump that chops and mixes air to create a frothy foam that is forced into the skimmer chamber. They may also be called "Needle Wheel" skimmers and are available in different styles to accommodate aquariums of all sizes.

biggest skimmer possible that fits your space and budget requirements. This will increase the skimmer's effectiveness and make maintenance easier.

* Some models can be placed directly in your aquarium sump, while others are considered free-standing and can be located right next to your sump. Others can be hung on the back of your aquarium or installed directly inside the aquarium.

Essentials:

- The SeaClone Protein Skimmer provides efficient venturi action with built-in Maxi-Jet 1200 Pump to create a froth of powerful cleansing micro-bubbles.

- The Bak-Pak is a hang-on skimmer that removes contaminants, improves water flow, and helps remove algae.

- The Prizm is an excellent choice for the beginning saltwater aquarist or the aquarist looking to upgrade their skimmer.

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