

Reverse Osmosis Water Advantages

Drs. Foster & Smith Educational Staff



Reduce Maintenance Time and Improve Aquarium Health

You may think your tap water is perfect because it looks clear, tastes good, and is odor-free. But you cannot see, taste, or smell all of the minerals, bacteria, nutrients, and chemicals present in your water. Unfortunately, these incidental compounds can cause problems in the aquarium, such as excessive algae growth, improper pH levels, and livestock losses. The best way to ensure your water is free from potentially harmful elements is to use a [Reverse Osmosis \(RO\) unit](#).

How Reverse Osmosis units Work

RO units create purified water by forcing pressurized tap water through a semi-permeable membrane. The membrane only allows very small molecules (such as H₂O) to pass through it, effectively removing up to 99% of most water impurities.

Aquariums that May Benefit from an RO System

Aquariums with Excessive Algae Growth - Excessive algae growth in the aquarium makes it look dark and unnatural and greatly increases the amount of maintenance required. Algae growth requires 3 things: nitrate, phosphate, and light. If your tap water contains either nitrate or phosphate, or both, chances are your aquarium will develop algae problems. By using purified water for your regular water changes, you will reduce these levels in the aquarium.

Freshwater Planted Aquariums - Freshwater plants grow best in water with specific pH levels. Because of natural or added minerals, it is very difficult to control the pH of tap water. By using purified water, you can customize your water with one of the many available [buffers](#), to easily maintain the optimal pH level your plants require.

Saltwater Fish and Reef Aquariums - The first step in setting up a successful saltwater aquarium is using purified water.



Commercially available [salt mixes](#) contain all of the necessary minerals and trace elements that your fish, corals, and invertebrates require. If you don't use purified water, the existing minerals that are in the tap water can throw the water parameters out of balance. This can lead to problems with low pH levels, high levels of nitrate and phosphate, and diatomaceous algae blooms.



By investing in a quality reverse osmosis unit, you'll save yourself the headaches of unstable water conditions and hours of extra maintenance, while providing your aquarium's inhabitants with the most optimal water conditions possible.