

Reverse Osmosis Drinking Water Benefits

Advantages of Reverse Osmosis Water Purification Systems for Residential, Commercial, Industrial and Sea Water Desalination Systems.

Dec. 9, 2010 - [PRLog](#) -- To understand

Reverse Osmosis we must first understand osmosis. During natural osmosis, water flows from a less concentrated solution through semipermeable membrane to a more concentrated saline solution until concentrations on both sides of the membrane are equal.

A Reverse Osmosis membrane has a thin microporous surface that rejects impurities, but allows water to pass through.

The membrane rejects bacteria, pyrogens, and 85%-99% of inorganic solids. Polyvalent ions are rejected easier than monovalent ions. Organic solids with molecular weight greater than 300 are rejected by the membrane, but dissolved gases pass through.

Reverse osmosis is a percent rejection technology. The purity of the product water depends on the purity of the inlet water. The purity of reverse osmosis product water is much higher than the purity of the feed water.

In easier words, Reverse Osmosis, also known as Hyper-Filtration, produces purified water by passing water through a series of filters and a membrane element to remove contaminants from water. It is the most effective water purification processes in the water treatment industry today. In addition to water purification, the reverse osmosis process desalinates sea water as well, concentration of liquids such as maple syrup, juices and also used after some modifications in the medical field as well such as Water for injection, kidney dialysis and Type 1 ultra pure water for laboratory.

Reverse osmosis systems have many advantages. They do not produce or use any harmful chemicals during the purification process. They are environmentally friendly.

Taste and odor of the purified water is another distinctive advantage. Reverse osmosis removes dissolved and non-dissolved minerals and other contaminants that cause water to taste and smell.

Removal of dissolved solids, metals and other particles benefits plumbing systems. There is nothing in the water to corrode pipes or collect as sediment.

A Complete Reverse Osmosis system consist of Four Processes

1- Pre-Filtration Process usually in three stages as follows:

A- Sediment Pre-Filter to eliminate suspended solids down to 5 Microns

B- Granular Activated Coconut Shell Carbon Pre=Filter to reduce chlorine, bacteria improving, taste, color and smell

C- Extruded Carbon Block Pre-Filter, extra protection

2- Reverse Osmosis Purification Process through the membrane element, the Membrane Element reduce dissolved solids by 85-99%

3- Storage Tank: R/O Process usually takes long time, a storage tank is needed to store the purified water.

4- Post-Filtration process prevent any bacteria from the air to walk it's way back from the faucet to the tank, and to improve taste and smell if the water is stored for longer periods of time in the storage tank.

Types of Reverse Osmosis Systems:

Ampac USA offers few different types of Reverse Osmosis systems as follows:

1- Municipal Water Reverse Osmosis for the home and the office.

- 2- Brackish Water Reverse Osmosis Systems for Wholehouse and Commercial Applications.
- 3- Seawater Desalination Watermaker Systems for Marine, land and offshore installations.
- 4- Ultra Pure RO/DI Systems for Laboratory, WFI, E-1 Water and Type 1,2,3 Water Systems.

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<http://www.ampac1.com>

<http://www.ampacpure.com>

<http://www.ampacwater.com>

For over 15 years, Ampac-USA designed and manufactured reverse osmosis water treatment and water purifications equipment with the highest quality, coupled with the best prices and customer satisfaction in the water treatment and Reverse-Osmosis Water Industry for Municipal, Brackish, High Purity and Seawater Desalination Applications.

Ampac-USA custom fabricate, design and manufacture to suite a variety of water treatment systems. In addition to warehousing and distribution., we're particularly noted for our technical services, bio-pharmaceutical and are available to assist with your specific custom applications.

In today's marketplace, you need quality water treatment and purification systems, manufactured in USA and a company who stands behind quality workmanship and customer service without exception. With AMPAC-USA you work with our dedicated professionals to fulfill your required specifications.

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Source	Sammy A. Farag
State/Province	California
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