

# Reverse Osmosis Maintenance



To insure optimum efficiency, certain routine maintenance must be performed on reverse osmosis systems.

The standard reverse osmosis system consists of three stages, pre-filtering, the reverse osmosis process, and post-filtering.

Water flows from the water supply to the first stage, the prefilter, where the 5-micron cartridge removes sand, silt, dirt, and other sediments that may be in the water supply. From there, the water flows to the reverse osmosis membrane cartridge.

Water is forced by pressure (at least 35 psi) through the semi permeable membrane. The good water passes through the membrane (at two drops per second) to the storage tank while the dissolved and particulate materials we don't want, are sent down the drain. We must always have a certain amount of water continually flushing across the face of the membrane to clean the porous surface and prevent plugging. The amount of good (product) water and the amount of flushing (reject) water is called the reject ratio. For residential R/O's this usually around 3:1. In other words, R/O's will require 4 gallons of water to make 1 gallon of purified water. That wastes a lot of water!

After leaving the storage tank but before going to the faucet product water goes through post filtering. The post filter or filters are usually of carbon type which will remove any remaining taste and odor.

## Maintenance Guide

Frequency of maintenance depends on a number of factors including condition of water and level of use.

### Every 4 to 6 months

Replacement of all filters, except the membrane

## **Every 36 months**

Replace the membrane and disinfect the unit and tank,

### **Filter cartridge replacement for standard system**

Shut off water supply valve found underneath the sink. Follow the tube (right side of unit) to the angle stop and shut it off.

Turn the valve on top of the storage tank to the off position.

Open the product faucet by switching the handle to the upright locking position

Unscrew each canister clockwise one at a time.

Replace filter cartridge. Handle each replacement filter cartridge by the shipping wrappers for sanitary purposes.

Inspect canister o-rings for placement and proper lubrication

Tighten canister by hand only.

Close product faucet.

Turn both water valves back on and check for leaks.

After you are certain there are no leaks in the system, drain the storage tank. It will then take from 2 to 6 hours to fill back up.

Drain tank a second time and let refill.

**Note:** Additional point-of-use systems (i.e., ice makers) may use additional filters along their cold water supply line that will need to be maintained separately. Refer to appropriate owners' manuals for full instructions.