

Safe Well Water RI

Trusted, expert information

Tip Sheet 20



“Tip sheets helped us learn about our well water.”

Get Tip Sheets at www.rivelltesting.org:

- 14 Tip Sheets about harmful substances
- 10 Tip Sheets about treatment choices
- 3 Tip Sheets about other topics of concern

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Look for the NSF seal on water treatment devices.

NSF International is a non-profit group that sets performance standards for water treatment devices. Learn about NSF here: www.nsf.org

Distillation Water Treatment Systems

Test and talk before you treat!

Use a State-certified testing lab. Find a list of certified labs here: www.health.ri.gov/find/labs/drinkingwater.

Call and talk with a State water quality expert. We can review your water test results with you and suggest ways to treat problems.

- » University of Rhode Island Water Quality Program: 401-874-5398
- » Rhode Island Department of Health: 401-222-6867

If you decide to buy a treatment system, work with a water treatment professional. They can help design a system to fit your needs. Before you buy a system, get a least 3 price quotes. Learn the questions to ask. See Tip Sheet 16.

CAUTION: Be aware that sometimes more than one system is needed to treat water. Consider whether using an alternative water supply such as putting in a new well, using public water if available, or using bottled water may be a better long-run solution.

When would I need a distillation treatment system?

Commonly used to remove:

- ▶ Unwanted tastes and odor (including chlorine)
- ▶ Lead
- ▶ Certain man-made chemicals, including pesticides and paint thinners



How distillation systems work

Distillation is a point-of-use treatment system, meaning that it treats just water used for cooking and drinking. These units produce small amounts of treated water and are usually installed at only one (kitchen) faucet.

Distilling is boiling with a few extra steps:

- Heating the water and turning it to steam — which removes and leaves behind unwanted substances
- Cooling the steam back into pure water
- Storing the distilled water

Systems treat different amounts of water. A small unit might distill under one quart of water per hour while a larger cart unit might distill about 2 quarts of water per hour.

Issues to think about before buying a distillation treatment system

- **Possible flat taste of distilled water.** Since all minerals are removed, distilled water may taste ‘flat’.
- **Manual or automatic operation.** Some units include reset switches and timers that may help if demand for distilled water is high.
- **Questions to ask before buying a system:**
 - ▶ Does the storage tank hold enough treated water for daily use?
 - ▶ How often will the distiller need to be cleaned?
 - ▶ Will there be any special costs to install the system, such as changes to the household plumbing?

If I have a distillation system, how do I maintain it?

All water treatment systems must be maintained according to the instructions that come with the unit.

- **Keep all paperwork and instructions** that come with the unit.
- **Keep records and receipts** of equipment maintenance and repairs.

Over time, minerals will build up in the boiling chamber of a distillation unit and must be cleaned out. How often the chamber needs cleaning will depend on the amount of minerals in the water and how much water is distilled.

What else do I need to know about a distillation treatment system?

- Make sure it’s installed and operated according to instructions.
- Make sure it works. After installing the system, have your water tested at a State-certified lab.