

Safe Well Water RI

Trusted, expert information

Tip Sheet 22



“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

.....

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

Microfiltration 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/privatewelltesting.

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
Direct line to water expert: 401-874-5398
- » Rhode Island Department of Health
Ask for the Private Well Program: 401-222-5960

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 microfiltration system?

Microfiltration: ‘Micro’ means small. A microfiltration unit removes small particles and solids, including:

- ▶ Iron and manganese in their solid form (rust)
- ▶ Clay
- ▶ Silt and sand
- ▶ Some disease-causing germs, such as bacteria and viruses

Pre-treatment: Filters are often used to pre-treat water before the water passes through another treatment system. Pre-treatment with microfiltration allows the 2nd treatment to work or work better.

Post-treatment: In some cases, microfilters are used after other treatment, such as aeration. This is called post-treatment.

Microfilters are not intended for heavy loads of sand or solids. Heavy loads are better handled using a rapid sand filter, screen, sand separator, or other treatment.

How microfiltration systems work

Whole-house treatment: Microfiltration is normally part of the household plumbing, so all water passes through the filter.

Types of filters: Different types of filters made of different materials remove different size particles. Filters are rated by the smallest particle they will remove, stated in microns. A micron is too small to see with the human eye. Removing bacteria and viruses requires a filter with a small micron rating. An example of a small micron rating looks like this: 0.00004.

Other substances may allow for slightly larger rating sizes. Larger rating size makes it easier to maintain the filter because it doesn’t clog as quickly.

Issues to think about before buying a microfiltration treatment system

These are usually low-cost, easy to maintain systems. They ‘self monitor’ — meaning that you will know when the filter is clogged and needs changing because water flow will decrease.

Ask before buying a system:

- ▶ Type and size of filter needed to treat the substance of concern?
- ▶ Costs to install and maintain, including how often filters must be replaced and where they can be purchased?
- ▶ Any special requirements to install that may add to equipment cost, such as changes to household plumbing?

If I have a microfiltration 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.
- **Change the filter** as needed.
- **Be prepared to remove the cartridge housing** (filter ‘sits’ in this) and clean and disinfect it.

What else do I need to know about a microfiltration 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.