



## Questions to Ask When Purchasing Water Treatment Equipment

Until recently, the point-of-use water treatment industry focused on improving the aesthetic quality of drinking water. The industry has lately been thrust into the forefront of treatment of contaminated drinking waters that pose a serious health hazard. The response has been a plethora of companies and products promising to render the consumer's drinking water safe and contaminant free. The individual is left to sift through advertising claims and technical data to select the appropriate treatment method.

The following are questions the consumer should ask a water treatment professional to determine the system needed; background information follows many of the questions. These questions should be used as guidelines. The extent to which the manufacturer or distributor is willing to provide answers can assist the consumer in making an informed choice.

**1. What exactly does the analysis of the water done by the treatment professional show? Are health hazards indicated? Should more testing be done?**

Many water treatment companies include in their services free in-home testing of the water. Not all contaminants can be evaluated this way; for example, organics, which have been associated with serious health problems, must be analyzed in a laboratory with sophisticated equipment. The consumer must be wary of home analyses claiming to determine more than basic water quality constituents such as hardness, pH, iron, and sulfur.

**2. How long has the company been in business, and is there a list of referrals the consumer can contact?**

**3. Have the product and the manufacturer been rated by the National Sanitation Foundation (NSF) or other third party organization? Was the product tested for the specific contaminant in question, over the advertised life of the treatment device (with more than 1 gallon of water), under household conditions (tap water, actual flow rates and pressures)?**

The NSF, whose function is similar to Underwriter's Laboratory, sets performance standards for water treatment devices. Because companies can make unsubstantiated statements regarding product effectiveness, the consumer must evaluate test results of the device to determine if claims are realistic.

**4. Does the water quality problem require wholehouse treatment or will a single-tap device be adequate?**

Although less than one percent of tap water is used for drinking and cooking, some contaminants are as hazardous when inhaled or absorbed through the skin as when ingested. Treatment of all the water used in the household may be required. Reverse osmosis and distillation units are usually connected to a single tap; activated carbon devices can be installed on a single tap or where water enters the house. The device selected depends upon the type of contaminant in question.

**5. Will the unit produce enough treated water daily to accommodate household usage? If a filter or membrane is involved, how often will it need to be changed, and how does the consumer know when that change should take place?**

The consumer must be certain that enough treated water will be produced for everyday use. The maximum flow rate should be sufficient for the peak home use rate. Devices such as activated carbon units, reverse osmosis units, and iron filters need routine maintenance; the homeowner should be fully informed of maintenance requirements.

**6. What are the total purchase price and expected maintenance cost of the device? Will the company selling the device also install and service it, and will there be a fee for labor? Can the consumer perform maintenance tasks, or must the water treatment professional be involved? Will the unit substantially increase electrical usage in the home?**

The consumer must watch for hidden costs such as separate installation fees, monthly maintenance fees, or equipment rental fees. Additionally, the disposal of waste materials, such as reject water, spent cartridges from activated carbon units, and used filters, can add to the cost of water treatment and should be figured into the purchase price. Some devices can be installed by the homeowner.

**7. Is there an alarm or indicator light on the device to alert the consumer to a malfunction? Will the manufacturer include in the purchase price a retesting of the water after a month or two?**

Many units have backup systems or shutoff functions to prevent consumption of untreated water. Testing the water a month after the device is installed will assure the homeowner that the unit is accomplishing the intended treatment

**8. What is the expected lifetime of the product? What is the length of the warranty period, and what does the warranty cover?**

The warranty may cover only certain parts of a device, so the consumer should be aware of the warranty conditions.

These guidelines are directed at individuals who are planning to consult a water treatment industry representative. It must be emphasized that treatment can be for aesthetic as well as health factors. If drinking water poses a health risk, the consumer should consider the cost of purchasing bottled water as an alternative to treatment. Monetary compensation for treatment of problem water resulting from environmental contamination may be possible, and the consumer should contact the local Cooperative Extension office for more information concerning this option.

Contact your local Cooperative Extension Office for additional information and publications on water quality.

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