

The Oxidizer System

The **Oxidizer System** reduces undesirable iron, sulfur, levels from water supplies without the use of harmful chemicals. The **Oxidizer** operates on two basic principles that occur in nature. The first being oxidation which is a reaction between the oxygen in the air we breathe and dissolved minerals found in most ground water supplies. When the oxygen component of air is induced into water it reacts with iron, sulfur, and manganese to form particles, or oxides. The second principle, filtration, uses granular media to filter out the precipitated oxides. As water passes through the system it is constantly being aerated and filtered. The filtered water, still rich in dissolved oxygen, leaves the system virtually free of iron and sulfur and appears slightly cloudy when initially dispensed. The excess oxygen is responsible for the temporary cloudy appearance. Within seconds after dispensing, the water will begin to clear from the bottom up as the oxygen is released. Clear, odor-free and iron-free water is provided at every turn of the tap. A water softener can be installed after the **Oxidizer** treatment system to remove calcium and magnesium hardness.

After treating several hundred gallons of water, the granular filter media require cleaning. The treatment vessel automatically backwashes until all trapped oxides are flushed out to the drain. In addition, a new charge of air is introduced into the Oxidizer. The system can treat water as long as sufficient air is present to sustain the oxidation process. The frequency of backwash and air charging is dependent on water usage and the size of the installed **Oxidizer** water treatment system.



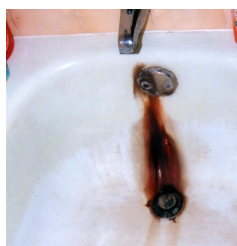
Features

- No Chemicals Needed
- Extremely Easy to Sanitize
- No Floats or Air Volume Controls Needed
- Oxidation Tank Backwashes
- No Pumps or Compressors

Specifications

MODEL NO.	MAXIMUM SERVICE FLOW RATE	MAXIMUM BACKWASH FLOW RATE	TREATED WATER PER RECHARGE	PIPE SIZE	MAXIMUM IRON	MAXIMUM MANGANESE	DIMENSIONS (dia. × ht.)
	(gpm)	(gpm)	(gallons)	(inches)	(ppm)	(ppm)	(inches)
	7	7.5	1000	1"	8	2	12x59

Water Problems Solved by the Oxidizer



Manganese Removal

If you have a water concentration greater than 0.5 mg/l manganese, you should consider installing a water treatment system or drink bottled water. People often choose to treat the water if the concentration is above 0.05 mg/l because of the

way manganese can affect the water's properties (color, taste, staining) at these low levels.



Iron Removal

Iron bacteria do not cause health problems in people, but they may cause unpleasant odors and taste and increased organic content in water favoring the multiplication of more iron bacteria. Piping clogged with rusty sludge can shorten the life

of your plumbing and plumbing. Iron in your water also increases the chances of sulfur bacteria infestation.

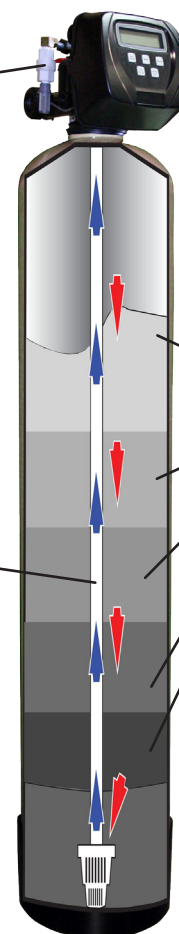
Oxidizer Features

1. Raw water hardness will not be altered by this oxidizer. A water softener installed after this oxidizer system is recommended for removal of hardness.
2. Pressure loss not to exceed 15 psi with clean filter.
3. Recharge frequency is adjustable.
4. Pipe connection size on filter. Minimum pipe size required for proper operation—1".
5. Tannin levels above 0.2 ppm interfere with Iron, Manganese, and Sulfide reduction. Chlorine feed required to remove tannins.
6. Sulfide odors caused by sulfate-reducing bacteria in the hot water heater will not be treated by this filter.
7. Raw water pH below 6.0 requires pre-treatment to elevate pH for satisfactory Manganese reduction.

Oxidizing
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