

## Backwashing Activated Carbon Unit

**Backwashing Activated Carbon Units  
are typically used for the treatment of Sulfur.**

Sulfur removal is needed when hydrogen sulfide is present in your water. Although hydrogen sulfide is not harmful, it causes an unpleasant "rotten egg" odor and taste. Hydrogen sulfur removal will eliminate the sulfur odor and taste so that you can have great tasting and smelling water.

**If your well water gives off a strong rotten egg smell you most likely have a problem with hydrogen sulfide gas in your water supply.**

- Hydrogen sulfide gas is produced when sulfur-bacteria breaks down sulfur compounds found in groundwater, water distribution systems, and water heaters.
- This form of bacteria has the ability to turn sulfate and organic matter, such as vegetation, into foul smelling hydrogen sulfide gas particularly in warm environments.



Hydrogen sulfide gas in drinking water is mostly a nuisance and its presence does not pose a health risk despite the bad odors and taste they cause in your water. The odors are very strong and can be detected at very low levels therefore it is important that you start by trying to determine the source of the problem.

**If you want to reduce bad smells and protect your family from other contaminants, installing a whole house activated carbon filter that removes hydrogen sulfide is a good solution to consider.**



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### Do I Need a System?

#### Ever smell rotten eggs when you turn on your water?

This is a typical indication of sulfur in your water supply. Sulfur is a naturally occurring gas that although isn't harmful, can be a nuisance. Sulfur typically has a bitter taste or egg smell.

Well chlorination might be recommended during presence of a sulfur smell or when lab test results indicate a presence of bacteria. In most cases however, chlorination is only a temporary fix for sulfur smells.

In most cases activated carbon is used for treatment. Active charcoal carbon filters are most effective at removing chlorine, sediment, volatile organic compounds, bitter taste and sulfur odor from water. Activated carbon is typically associated with adsorption, a physical process in which dissolved molecules adhere to the surface of the carbon filter.

### How Does It Work?

During the treatment process, catalytic carbon first adsorbs sulfides onto the carbon surface. Then, in the presence of dissolved oxygen, it oxidizes the sulfides and converts them to no objectionable compounds.

In this capacity, catalytic carbon is similar to manganese greensand and chlorination systems that remove sulfides through oxidation. It differs in that it maintains consistent catalytic activity (oxidation) that can be controlled and enhanced to treat sulfur water without use of chemical additives.

**This system resolves common causes of the rotten-egg smell and other unpleasant tastes and odors that can occur in water due to high hydrogen sulfide content.**

