

Mang-OxTM

Product Information

Mang-Ox™ is a high rate, granular filter media used for removing hydrogen sulfide, iron and manganese compounds from water supplies.

Mang-Ox™ operates both as a classical filter working with an oxidant and as a catalytic media due to its ability to accelerate the reaction between the oxidizing agent and any prevalent dissolved oxygen with sulfide, iron and manganese present.

Dissolved iron, manganese and hydrogen sulfide will stay in solution unless the equilibrium is changed. Iron and manganese that is not oxidized become catalytically precipitated and then adsorbed directly on the media. **Mang-Ox™** is a very dense media that stops oxidized (precipitated) forms of iron, manganese and hydrogen sulfide from passing through the bed.

Most of the manganous manganese is rapidly removed in the first few inches of the media where it is further oxidized to manganese dioxide.

The adsorbed manganese, iron and precipitated sulphur are expelled during backwash. Any insoluble ferric hydroxide particulate growths are also expelled during backwash. The media must be properly backwashed to break loose and remove the filtered contaminants and precipitated iron, manganese and hydrogen sulfide. System sizing of the control valve and tank are necessary to sustain media performance.

A continuous reaction occurs with the addition of an oxidant, regenerating the media surface and replenishing the **Mang-Ox™**. For difficult applications, **Mang-Ox™** filters can be enhanced with aeration, chlorination, and ozone.

Because of **Mang-Ox™** naturally high manganese dioxide content, it provides a higher adsorption capacity than other media.

A **Mang-Ox™** filter is recommended before softeners to protect the ion exchange resin from fouling.

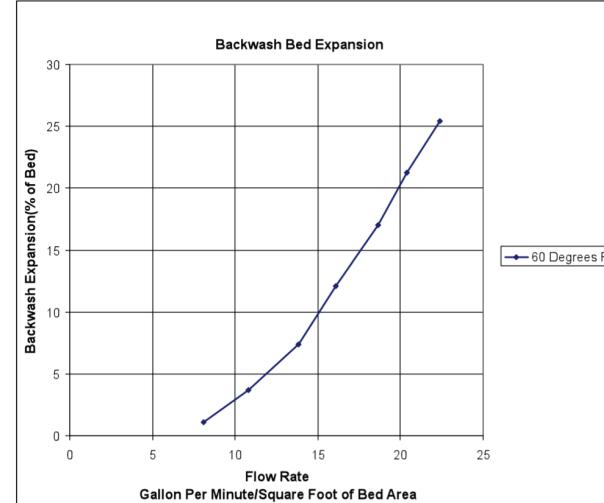
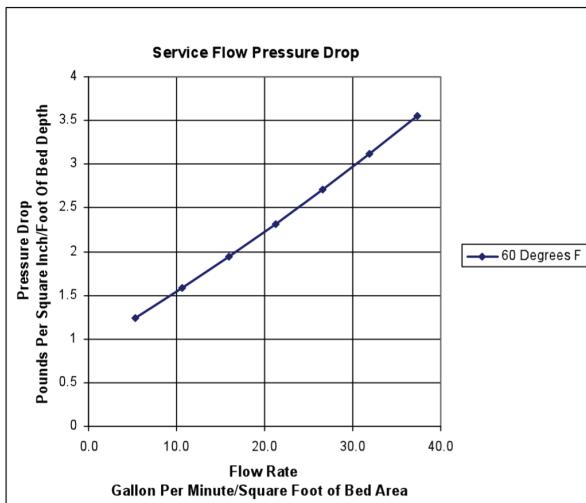
Mang-OxTM Applications

- Removal of Iron up to 10 ppm.
- Removal of Manganese up to 5 ppm.
- Removal of Hydrogen Sulfide (rotten egg smell) up to 3 ppm.
- Not recommended for Iron Bacteria and Manganese bacteria removal.
- Not recommended for tannin and organics removal.

Mang-O_xTM Advantages

- Efficient reduction of manganese, iron and hydrogen sulfide - Long service life.
- Ease of placing into service since the product is triple-washed, minimizing fines and dust.
- Only regular backwashing is necessary.
- Ability to process high flow rates with low pressure drop.
- 10 to 30 second reaction time with oxidant additive.
- Ability to be utilized with common oxidants including:
 1. Cl₂ (gas)
 2. Sodium hypochlorite
 3. Potassium permanganate

- Continuous regeneration.
- Converts ferrous iron to ferric iron.
- Converts H₂S to sulphur.
- Converts manganese to MnO².
- No chemical regeneration is required but may reduce service life.
- Allows for adequate reaction time to permit for the formation of ferric hydroxide.
- Allows for physical straining of the ferric hydroxide floc and sulphur until media.
- Allows for adsorption of MnO².
- NSF/ANSI Standard 61-2002 Certified.



Specifications		Physical Properties
Colour	Black	
Mesh Size	20 x 40	
Granule Size	.35 mm - .85mm	
Uniformity Coefficient	1.45	
Pinball Hardness	97%	
Bulk Density	1.90 g/ml or 120 lbs. per cubic ft.	
Packaging	1/2 cubic foot or 55 lb bags; 2,205 lb or 1 metric ton super sacks	



Certified to NSF/ANSI Standard 61