# Iron, Hydrogen Sulfide, and Manganese Reduction

## Filox™ Media

Filox™ media is an economical Iron and Hydrogen Sulfide filtration media that out performs traditional Greensand and Birm.

#### **Features & Benefits**

- Superior high efficiency media for filtration and removal capabilities
- No oxidizing chemicals typically needed for regeneration (See Testing For ORP below)
- High efficiency with 80% manganese dioxide for enhanced performance and capacity.
- Effective, from 6.5 pH to 9.0 pH
- · Highest flow rate of any standard iron removal media.

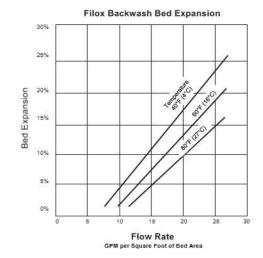
<b>Operating Con</b>	ditions		
Active Ingredient	75-85% Manganese Dioxide		
Service Flow	6 gpm/cu.ft.		
Freeboard	30-50% of bed depth		
Backwash rate	Backwash rate 16-30 GPM/sq.ft, dependir on application specific variables, minimun recommended bed expansion is 15%		
Bed depth	20 inch Minimum		
pH Range	6.5 - 9.0		
Screen size	12 x 40		
Bulk density	114 lbs/cu.ft.		
Removal Capa	city		
Iron	10 ppm		
Hydrogen Sulfide	3 ppm		
Manganese	5 ppm		

### Comparative Information

PRODUCT NAME	ACTIVE INGREDIENT		
Greensand	0.5% Manganese Dioxide		
Filox™	75% - 85% Manganese Dioxide		







#### **Ordering Information**

MODEL NO.	DESCRIPTION	CUBIC FEET PER BAG	CONTAINER WT. (LBS.)	PER PALLET
A8033	Filox™ media	0.5	57	38

The use of additional oxidizing agents (oxygen, chlorine, ozone, hydrogen peroxide, potassium permanganate, etc.) is recommended. Oxidizers will enhance the performance of Filox<sup>™</sup>. They oxidize the media, which enables Filox<sup>™</sup> to perform quicker and keep cleaner. It is always a safe practice to install an oxidation method upstream (in front) of the Filox<sup>™</sup> bed. Do not exceed 4 ppm free chlorine chlorine in the feed water stream or bed damage may occur.

#### **Testing For ORP**

Oxidation Reduction Potential (ORP) can be the most important factor to take into consideration in certain waters. Highly reducing waters may cause premature exhaustion or even destruction of the Filox™ bed. Precautions can be taken prior to installation that can prevent ORP problems. Use one of the screening tests and follow the instructions below if the subject water has reducing properties that will require additional oxidants.

#### Simple Test

Mix 1.75 ounces (50 grams) water with 0.75 ounces (22 grams) of potassium permanganate crystals. Then take 2 drops of the mixture and stir into a fresh 1/4 gallon (1 liter) sample of the subject water. Let the subject water stand for 15 minutes. If the pink color remains, Filox-R™ can possibly be installed without additional oxidants. If the pink color disappears, additional oxidants will be needed for Filox™ to function properly.

#### **ORP Meter Test**

#### NOTICE

Must use a calibrated ORP meter. Any reading that is above a negative 170 millivolts indicates that Filox™ can be used effectively, possibly without additional oxidants. Any reading falling below a negative 170 millivolts indicates that additional oxidants will be required.

See disclaimer on inside front cover

NOTICE

Watts recommends a small scale pilot test anytime the use of oxidizing agents are in question.