Filter-Ox™ is capable of reducing iron, manganese and hydrogen sulfide from water through oxidation and filtration.

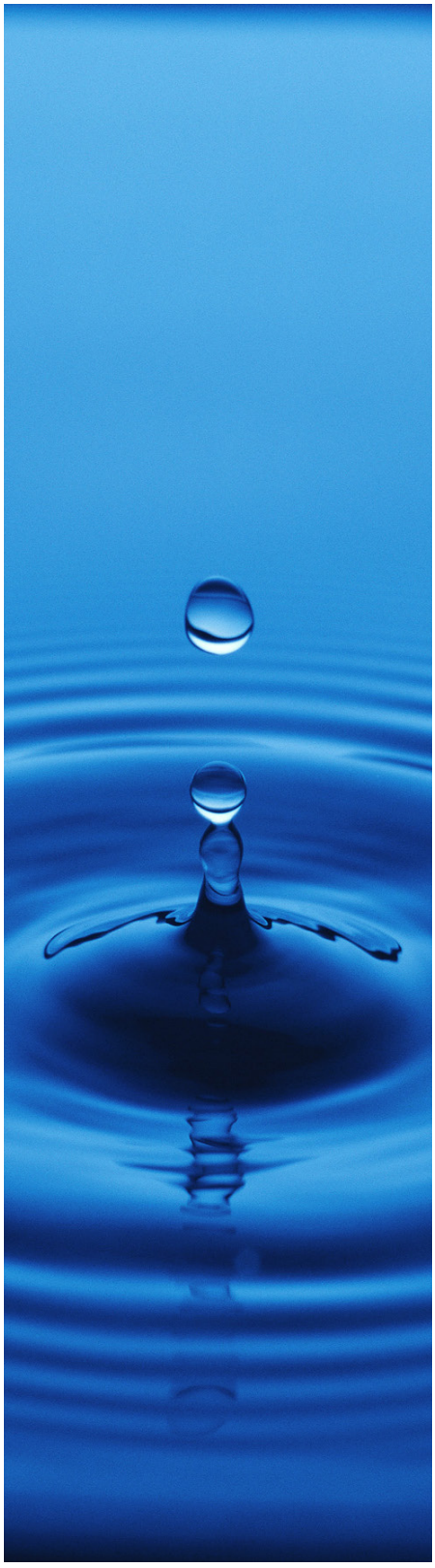
Filter-Ox™

Filter-Ox™ is a highly effective filter media capable of reducing iron, manganese and hydrogen sulfide from water through oxidation and filtration. Soluble iron and manganese are oxidized and precipitated by contact with the catalytic coating on the Filter-Ox™ granules. The hydrogen sulfide is oxidized to an insoluble sulfur precipitate. Precipitates are then filtered and removed by backwashing.

Filter-Ox™ is an engineered media that utilizes a super high purity manganese dioxide coating bonded to a durable, lightweight silica substrate. Manganese dioxide is a powerful oxidizer and Filter-Ox™ contains more manganese dioxide than other manganese based filter medias. Manufactured in the USA, Filter-Ox™ contains almost no fines and does not require long initial backwash times. A standard sterilization treatment using chlorine is all that is needed at start up.

Untreated water should periodically be monitored for raw water parameters. Treated water should periodically be monitored for manganese, iron and hydrogen sulfide shortly before a regeneration and immediately after a regeneration to monitor how the filter system is functioning. Elevated treated water concentrations before regeneration may mean that the filter media reduction capacity has been exceeded. Take corrective actions as necessary.

Low pH or high pH are the most likely conditions leading to media destruction.



ADVANTAGES

- Iron reduction over wide pH range
- Effective reduction of hydrogen sulfide in addition to iron and/or manganese
- No harmful effects from a chlorine feed
- Low attrition for long bed life

PHYSICAL PROPERTIES

- Bulk Density: 84 lbs./cu. ft.
- Effective Size: .56 mm
- Uniformity Coefficient: 1.51
- Moisture: <1%
- Particle Shape: Sub-Angular
- Color: Grey to black granules

CONDITIONS FOR OPERATION

- Water pH range: 6.2-8.5
- Maximum water temperature: 100°F/38°C
- Bed depth: 30 in.
- Freeboard: 40% of bed depth (min.)
- Service flow rate: 2-12 gpm/sq. ft. continuous
- Backwash flow rate: 12 gpm/sq. ft. at 55°F, warmer waters require higher flow rates
- Free chlorine concentration less than .5 ppm

METHODS OF REGENERATION AND REGENERATION REQUIREMENTS

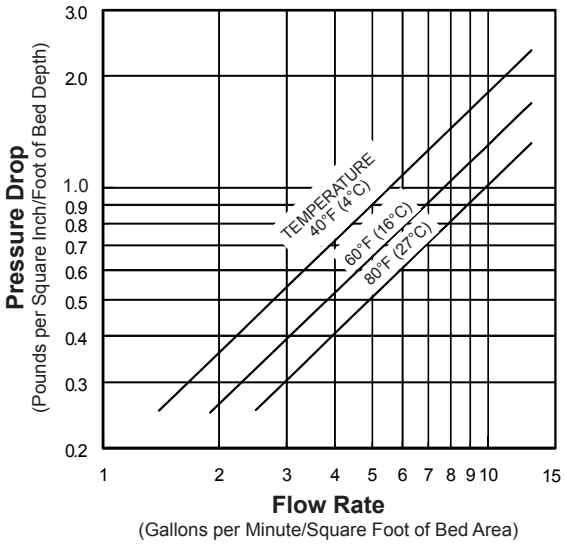
- Continuous regeneration using chlorine feed or air are recommended
- Mg/l Cl_2 (1x mg/l Fe) + (3x mg/l Mn)
- Air draw or air injection
- Use an injector size that is two sizes larger than a typical softener application
- Draw/slow rinse time greater than 50 minutes
- Down flow rinse (Fast Rinse) 4 minutes minimum

CATALYTIC OXIDATION (CO)

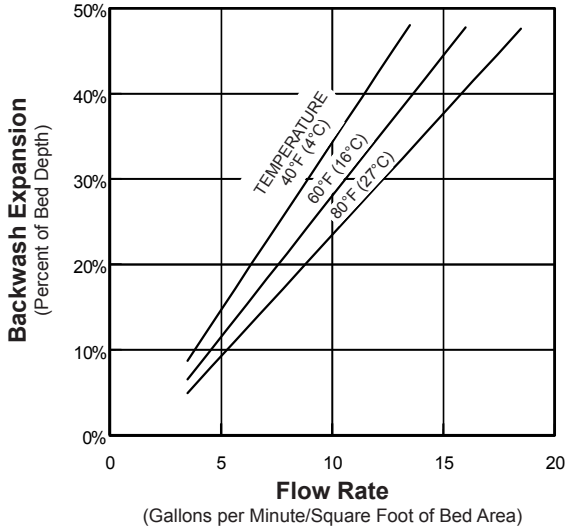
Catalytic Oxidation (CO) operation is recommended in applications where iron removal is the main objective in well waters with or without the presence of manganese. This method involves the feeding of a predetermined amount of chlorine (Cl_2) or other strong oxidant directly to the raw water before the Filter-Ox™ Filter.

Chlorine should be fed at least 10-20 seconds upstream of the filter, or as far upstream of the filter as possible to insure adequate contact time. A free chlorine residual carried through the filter will maintain Filter-Ox™.

Service Flow Pressure Drop



Backwash Bed Expansion



NSF

Certified to NSF/ANSI/CAN Standard 61

ORDER INFORMATION

Part No.	Description	Cu. Ft./Bag	Wt./Cu. Ft.	Bags/Pallet	Weight/Pallet	Pallet Dimensions
A8045	Filter-Ox™	.5	84 lbs.	48	2066 lbs.	43" x 43" x 31.5"

Filter-Ox™ is a federally registered trademark of Clack Corporation.

NOT FOR INSTALLATION IN CALIFORNIA

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The information and recommendations given in this publication should not be understood as recommending the use of our products in violation of any patent or as a license to use any patents of the Clack Corporation.

The filter medias listed in this brochure do not remove or kill bacteria. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

Clack will not be liable under any circumstance for consequential or incidental damages, including but not limited to, lost profits resulting from the use of our products.

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