



IROX N70 is a black or light brown, granular, naturally mined filter media composed of high purity manganese dioxide. IROX N70 is a solid manganese dioxide offering higher flow rates and faster reaction times. IROX N70 media uses for iron removal and oxidation-reduction filtration process similar to manganese greensand, but at a far higher level of performance, and lasts many years longer due to its solid form and higher purity. IROX N70 works by adsorbing the oxidized species of iron, manganese or sulfides on the external as well as the porous internal structures of the media. This is a catalytic process which processes water at a faster flow rate than traditional manganese media.

A strong backwash at the proper flow rate is required to keep the IROX N70 media clean. A rate of 12 to 15 GPM per square foot is recommended, in order to be able to lift and expand the filter media, and wash out the trapped iron and manganese oxides. Since IROX N70 is a solid granule with very high particle strength, frequent backwashing does not harm the media and dramatically extends the life of the media.



## PHYSICAL PROPERTIES

Content	Standard	Unit
MnO <sub>2</sub>	35	%
SiO <sub>2</sub>	17-20	%
Fe	20	%
MnC <sub>2</sub>	10-20	%
Proportion	3.4	g/cm
Bulk density	2.2	g/cm
Dust content	<3	%
Hydrochloric acid solubility	<3.5	%
Mesh Size	2-4	mm
Packing	30	kgs/bag



## 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.

## pH

pH of Raw waters having natural pH of 6.5 or above can be filtered through IROX N70 without pH correction. Raw waters with a pH lower than 6.5 should be pH-corrected to 6.5- 6.8 before filtration. Additional alkali should be added following the filters if a pH higher than 6.5-6.8 is desired in the treated water. This prevents the possible adverse reaction and formation of a colloidal precipitate that sometimes occurs with iron and alkali at a pH above 6.8.



## BED TYPE

Bed Type Dual media: anthracite 18-20 in. (450 mm - 500 mm) and Irox N70 24-30 in. (600 mm - 750 mm)

## CAPACITY

700-1200 grains of oxidized iron and manganese/sq.ft. of bed area based on oxidant demand and operation to iron break through or dp limitations.

## BACKWASH

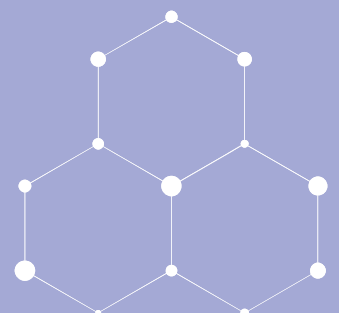
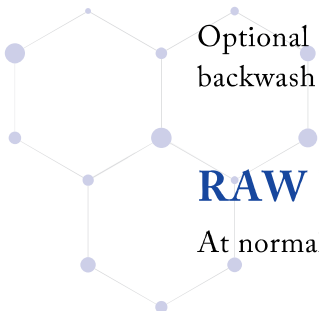
Sufficient rate using treated water to produce 40% bed expansion until waste water is clear, or for 10 minutes, whichever occurs first.

## AIR/WATER SCOUR

Optional using 0.8-2.0 cfm/sq. ft. (15 m/hr - 7 m/hr) with a simultaneous treated water backwash at 4.0-4.5 gpm/sq. ft. (9.8 m/hr -11.03 m/hr).

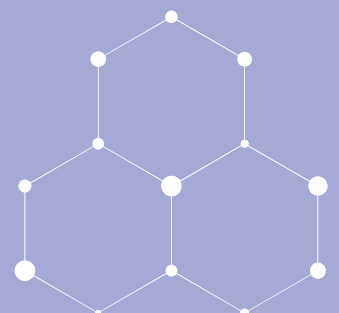
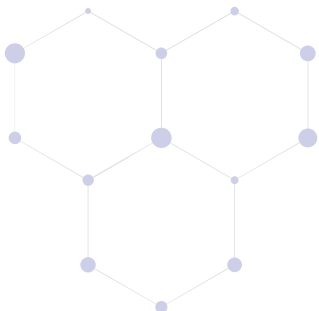
## RAW WATER RINSE

At normal service flow rate for 3 minutes or until effluent is acceptable.





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**BETTER WATER TREATMENT**