

COMMERCIAL GREENSAND FILTERS

Iron, Manganese & Hydrogen Sulphide Removal!



Iron and Manganese can cause staining and sludge formation in concentrations as low as 0.3 PPM and 0.05 PPM respectively. Hydrogen Sulphide, in concentrations as low as 1.0 PPM, causes an offensive rotten-egg odour.

Rainfresh commercial Greensand filters are designed to remove iron, manganese and hydrogen sulphide by oxidation and filtration using the oxidant properties of Manganese Greensand, a modified glauconitic greensand that is capable of reducing iron, manganese and hydrogen sulphide from water through oxidation and filtration. Soluble iron and manganese are oxidized and precipitated by contact with higher oxides of manganese on the greensand granules. Hydrogen sulphide is reduced by oxidation to an insoluble

sulphur precipitate. Precipitates are then filtered and removed by backwashing. When the oxidizing capacity power of the Manganese Greensand bed is exhausted, the bed has to be regenerated with a weak potassium permanganate ($KMnO_4$) solution (1½ to 2 ounces of potassium permanganate, in solution, per cubic foot of media).

Models and Specifications

Model	Media Vol (Cu Ft)	Flow Rate US GPM (LPM)		Backwash Flow Rate US GPM (LPM)	Valve size	Tank Size (Dia x H)	Shipping Weight Lbs. (Kg)
		0-3 PPM*	3-8 PPM*				
EGFE1252	2.0	4.0 (15.1)	2.5 (9.4)	8.5 (32.1)	1"	12" x 52"	350 (160)
EGFE1465	2.75	5.0 (18.9)	3.0 (11.3)	10.0 (37.8)	1"	14" x 65"	450 (205)
EGFE1665	3.5	7.0 (26.5)	4.0 (15.1)	15.0 (56.7)	1.5"	16" x 65"	525 (239)
EGFE2472	8.0	16.0 (60.5)	9.0 (34.0)	30.0 (113.5)	2"	24" x 72"	1,075 (488)
EGFE3072	12.5	25.0 (94.6)	15.0 (56.7)	50.0 (189.25)	2"/3"	30" x 72"	1,570 (714)
EGFE3672	18.0	35.0 (132.4)	21.0 (79.4)	70.0 (264.9)	2"/3"	36" x 72"	2,175 (989)

* - Based on combined (Iron concentration) + (2 x Manganese concentration)

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