

PRODUCT INFORMATION

Iron And Manganese reduction Using Oxidation Or Ion Exchange

Iron and manganese are commonly found in borehole water supplies. They can cause unsightly staining and at high levels they can cause health problems. Both can be removed to leave the water crystal clear. Some medias will also remove the hardness which causes furring in boilers at the same time with no extra treatment. Of all water treatments the removal of iron and manganese from the supply is very dependant on a good water analysis as the performance of the medias will depend upon factors such as pH level, hardness, turbidity etc. Primary stage treatment may be necessary in order to prepare the water correctly for iron and manganese removal.

Manganese Dioxide are used for reducing iron, hydrogen sulphide and manganese at low levels from water supplies. It is a media that utilises an oxidation reaction, similar to Greensand, but at a much higher level of performance. It has an extremely unique cluster format for enhanced performance and maximise capacity. It out performs other medias due to the purity of its particles. Needs a pH of at least 8 for effective manganese reduction, and a minimum pH of 7 to reduce Iron with a Minimum dissolved oxygen content. Manganese Dioxide media will regenerate with water so there is no salt usage and no brine tank.

Vessel Size	10.54	12.52	13.54	14.65	16.65	18.65
Forward Flow m3/h	2.0	2.7	3.4	4.1	5.4	6.1
Backwash m3/h	1.9	2.7	3.1	3.6	4.8	6.0



Base ion exchange

If water conditions are right then a simple method of reducing Iron and manganese in water is to use a Base Ion Exchange media. This media works over a wider range of pH than manganese dioxide and has the added benefit of softening the water. The media works by taking on board ions of iron and manganese which replace sodium ions. During the regeneration cycle, which uses salt, the iron and manganese is replaced by sodium which is released into the water. The sodium level in the water produced is increased and care should be taken that the regulatory limits are not exceeded. Natural sodium levels in water is usually quite low and so this is not normally an issue. We will not install an Ion Exchange unit unless we know the raw sodium level.

Vessel Size	10.54	12.52	13.54	14.65	16.65	18.65
Forward Flow m3/h	1.7	2.5	3.0	4.0	5.0	5.7
Backwash m3/h	1.6	1.8	2.3	2.8	3.4	3.0



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