

Iron / Manganese Elimination



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Field of Application

Some water, e.g. well water, contain too much iron or manganese. If you use this water red-brown residuals will occur, because heavily dissolving precipitated are forming.

Function

The iron and/or manganese containing water passes the special filter material with its catalytic surface. Iron and manganese are oxidized and form small flakes that will be taken up by the filter material. The free programmable time take care that the residues are flushed out regularly. During this flushing time you cannot produce water. If the special filter material loses the catalytic ability with the time it is possible to regenerate it with potassium permanganate.

Requirements for operation

The water must be free of oils and hydrogen sulphide. The minimum oxygen concentration should be more than 15% (w/w) of the iron and manganese concentration.

- Iron concentration max. 3.0 mg/l
- Manganese concentration max. 1,5 mg/l
- pH value during iron removal > 6.5
- pH value during manganese removal > 8.0
- pH value during iron and manganese removal 8.0...8.5



Technical data of the AquaCare Iron and Manganese Removal Unit:

Type	BR1054-XP0	BR1354 XP0	BR1465 XP0	BR1665 XP2	BR2160 XP2	BR2469 XP2
Water velocity	operation: 12 m/h; flushing: min. 25 m/h					
Filter area, m ²	0.05	0.09	0.10	0.13	0.24	0.32
Flow, ca. m ³ /h	0.6	1.0	1.2	1.6	2.9	3.8
Flushing flow, m ³ /h	1.3	2.3	2.5	3.3	6.0	8.0
Flushing needs, m ³	0.26	0.46	0.50	0.66	1.2	1.6
Operation pressure	2.5...6.0 bar					
Operation temperature	4...30°C					
Connection	R 1"					
Electrical connection	230 V, 50 Hz					
Filter material						
Quartz gravel 1.0...2.0mm	12 kg	20 kg	22 kg	22 kg	52 kg	70 kg
Greensand (BIRM)	28 Litre	56 Litre	84 Litre	112 Litre	168 Litre	220 Litre
Filter diameter, mm	257	333	365	403	550	691
Space needs, mm						
height	1650	1650	2100	2100	2250	2420
wide	300	350	400	500	600	750
depth	300	350	400	500	600	750
Weight, kg						