WATEX RCMB IRON REMOVAL FILTERS TECHNICAL DATA

Technical specifications	Unit	Model				
		RCMB10	RCMB12	RCMB13	RCMB14	RCMB16
Nominal flow* Q_{nom}	m^3/h	0.4	0.6	0.7	0.8	1.1
Maximum flow** Q_{max}	m^3/h	0.6	0.8	1.0	1.2	1.6
Rinse water volume***	m^3	0.20	0.28	0.35	0.41	0.53
Minimum rinse flow	m^3/h	1.5	2.1	2.6	3.1	4.0
Tank diameter	inches	10	12	13	14	16
	m	0.25	0.30	0.33	0.37	0.41
Tank volume	litres	64	85	110	145	183
Filter media per tank	litres	43	57	73	97	122
Overall dimensions						
Length (L)	m	1.06	1.21	1.29	1.37	1.53
Width (W)	m	0.25	0.30	0.33	0.37	0.41
Height (H)	m	1.57	1.52	1.57	1.87	2.04
Connections (in/out/drain)	inches	1”	1”	1”	1 ¼”	1 ¼”
Treatment		Iron, manganese, turbidity, odour, colour				
Tank material		FRP (fibreglass)				
Filter media		Aqua Mandix, quartz sand 1x3mm, 3x5 mm				
Operating pressure	bar	2-6				
Power supply		220V, 50Hz, 1 phase				
Power consumption	W	3 W				

* Filtration velocity 8 m/h
** Filtration velocity 12 m/h
*** Backwash 8 min

RCMB IRON REMOVAL FILTERS DESCRIPTION

APPLICATION

WATEX RCMB series filters remove turbidity, dissolved and oxidised iron, manganese and odour from water for private houses, villages and industrial facilities. They are mainly used for groundwater or centralised water supply systems.

OPERATING PRINCIPLE

RCMB filters work by aeration and filtration. When untreated water is aerated, iron, manganese and mechanical impurities form small particles that can be filtered out. Suspended solids are removed by the filter media in the tank. The filters are rinsed at regular intervals determined by contamination levels and water consumption. After rinsing, they are ready to treat water again. The system consists of a reactor and one working filter.

PRESSURE TANKS

The filter pressure tanks are made of fibreglass with an inner PE lining and have a PN10 pressure rating.

FILTER MEDIA

The water is treated using Aqua Mandix filter media and quartz sand with different grain sizes (0.4-0.8mm, 1-3 mm and 3-5mm). The porous structure of Aqua Mandix provides a large active surface for efficient adsorption and retention of the substances being filtered.

CONTROL UNIT

The filter has an automatic Clack control unit that rinses the filter media and controls operation. Rinsing takes place at the set time, usually at 2.00 a.m.

AIR SUPPLY

Water aeration requires an oil-free air compressor to supply air to the system. Air is introduced into the water before the reactor.

SYSTEM MAINTENANCE

The filters deliver good-quality water provided operating personnel monitor the air supply, venting of the filters and correct performance of the rinse cycle. No special reagents that require replenishment during operation are used in the iron-removal process.