

WATEX RCMBx2 IRON REMOVAL FILTER TECHNICAL DATA

Technical parameters	Unit	Model				
		RCMB10x2	RCMB12x2	RCMB13x2	RCMB14x2	RCMB16x2
Nominal flow* Q _{nom}	m ³ /h	0.8	1.1	1.4	1.6	2.1
Maximum flow** Q _{max}	m ³ /h	1.2	1.7	2.1	2.4	3.2
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	0.36	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	0.36	0.41
Height (H)	m	1.53	1.48	1.53	1.85	1.87
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 rate 8 m/h
 ** Filtration rate 12 m/h
 *** Backwash 8 min



WATEX RCMBx2 IRON REMOVAL FILTER DESCRIPTION

APPLICATION

WATEX RCMBx2 filters remove turbidity, dissolved and oxidised iron, manganese and odours from water for villages, cities and industrial facilities. They are mainly used in groundwater treatment or centralised water supply systems.

OPERATING PRINCIPLE

RCMBx2 filters operate by aeration and filtration. When untreated water is aerated, iron, manganese and mechanical impurities form small deposits that can be filtered out. Suspended solids are removed by the media inside the filters. Filters are rinsed at regular intervals set according to contaminant levels and water consumption. After rinsing, the filters are ready to treat water again. The system consists of a reactor and two filters operating in parallel.

PRESSURE TANKS

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

FILTER MEDIA

Water is treated using Aqua Mandix and quartz sand with grain sizes of 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

An automatic Clack control unit controls filter operation and rinsing of the filter media. Rinsing takes place at a preset time, usually 2.00 a.m.

AIR SUPPLY

An oil-free air compressor must be installed to supply air for water aeration. Air is injected into the water before it enters the reactor.

SYSTEM MAINTENANCE

The filters provide good-quality water if operating personnel monitor the air supply, filter venting and correct completion of rinsing. The iron removal process uses no special reagents that need replenishing during operation.