



WATEX | Water treatment systems for private houses

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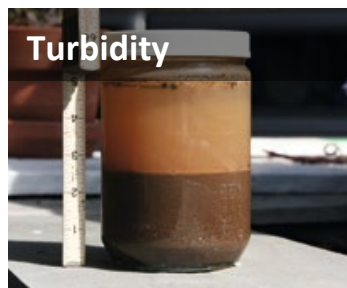
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Common water quality problems



Turbidity

Turbid water may contain sand, silt, iron and organic deposits. These particles can obstruct pipework, valves, measuring devices and household fittings.

Solution

Choose the filtration grade from a water analysis. Replaceable-cartridge mechanical filters or manually or automatically backwashed WATEX MQ media filters can be used for sediment control.

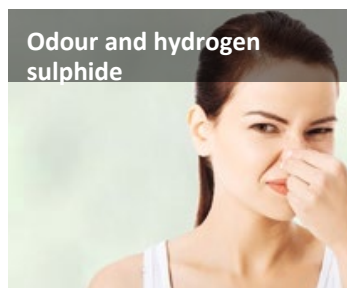


Iron and manganese

Elevated iron and manganese are common in well water. After contact with air, water may turn yellow-brown and leave deposits, metallic taste or odour while increasing fouling of pipework and appliances.

Solution

WATEX CMB and RCMB use aeration, oxidation and automatic backwashing without a regeneration chemical. WATEX CMS ion-exchange systems may combine hardness reduction with iron and manganese reduction and regenerate with NaCl. Final selection requires water analysis.

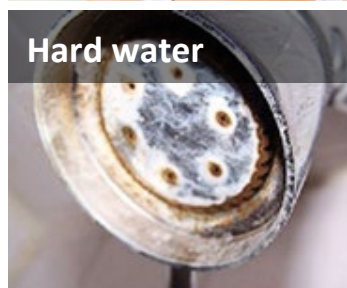


Odour and hydrogen sulphide

Groundwater odour can be caused by dissolved gases such as hydrogen sulphide or by organic matter. Chlorine odour may occur in mains water.

Solution

Aeration can release dissolved gases; WATEX CMB or RCMB may suit water where odour occurs with iron. WATEX CTO activated carbon adsorbs chlorine and many odour-forming organic compounds. Selection depends on the analysis.



Hard water

Dissolved calcium and magnesium can form limescale on heating elements, taps, showerheads and pipework, reducing efficiency and service life.

Solution

WATEX CMS ion-exchange softeners reduce hardness and are regenerated with sodium chloride (NaCl). Sizing and settings must match the measured hardness and household demand.



Microbiological contamination

Bacteria and viruses cannot be assessed from the appearance, taste or odour of water. Microbiological testing is required when contamination is suspected.

Solution

A correctly sized UV-C unit operating near 254 nm can reduce microorganisms without adding a disinfectant. Performance depends on UV transmittance, pretreatment, dose, flow and maintenance; confirm the design from test results.

Water testing

A water analysis is needed to identify the source-water conditions and select the treatment stages. Depending on the case, testing may include hardness, calcium, magnesium, alkalinity, mineralisation, chlorides, sulphates, bicarbonates, iron, manganese, oxidisability, nitrate, nitrite, ammonium, hydrogen sulphide, turbidity, pH and conductivity.

- 1 Let the water run for 5-10 minutes before sampling
- 2 Fill the bottle completely and avoid an air pocket
- 3 Deliver the sample to Watex Estonia preferably the same day
- 4 The current test scope and turnaround time are confirmed when the sample is accepted

WATEX system selection guide

Model	Turbidity	Iron	Manganese	Hardness	Odour	Microbio.	Organics	Other salts	Ammonium	Treatment method	Reagent
CMB	+	+	+	-	+	-	-	-	-	Oxidation + filtration	-
RCMB	+	+	+	-	+	-	-	-	-	Oxidation + filtration	-
CMG	+	+	+	-	+/-	-	-	-	-	Oxidation + filtration	KMnO4
CMS	+	+	+	+	-	-	-	-	+	Ion exchange	NaCl
CMA	+	+	+	+	+/-	-	+	-	+	Ion exchange	NaCl
CTO	+	-	-	-	+	-	+	-	-	Activated-carbon adsorption	-
WRO	+	+	+	+	+/-	+	+	+	+	Reverse-osmosis membrane	-
UV	-	-	-	-	-	+	-	-	-	UV-C irradiation	-

+ indicates a standard target condition; +/- depends on configuration and source water; - means the process is not the primary treatment step. Final selection requires water analysis.

← Cold water

← Hot-water supply



Installation requirements

- Drain connection
- 220 V electrical supply
- Water pressure above 2.5 bar
- Room temperature above 0 °C
- Water temperature up to 25 °C
- Correctly sized and connected system

WATER SOFTENER WATEX CMS



- Control valve - controls automatic backwashing and media regeneration
- Brine tank - stores salt used for regeneration
- Filter vessel and media - filters water and

PARAMETER	CMS-9	CMS-10	CMS-12	CMS-13	CMS-14
Nominal flow (m³/h)	1	1.6	2.2	2.8	3.6
Maximum flow (m³/h)	2.5	3	4	5	6
Filter vessel (cm), D x H	23x120	25x135	30x135	34x160	36x185
Brine tank (cm)	45x90				
Resin quantity (l)	25	40	55	70	90
Water per backwash (l)	~110	~150	~200	~250	~350
Filter media	Resinex KW-8				
Inlet/outlet size	1"				
Power consumption	10 W				

IRON REMOVAL FILTER WATEX CMB



- Control valve - controls automatic backwashing and media regeneration
- Air cushion - supports water oxidation
- Filter vessel and media - filters water and retains deposits

PARAMETER	CMB-10	CMB-12	CMB-13	CMB-14
Nominal flow (m³/h)	0.6	0.9	1.0	1.2
Maximum flow (m³/h)	3	4	5	6
Filter vessel (cm), D x H	25x135	30x135	33x135	35x163
Media quantity (l)	30	50	70	90
Water per backwash (l)	~160	~220	~270	~320
Filter media	AquaMandix / Birm + quartz sand			
Inlet/outlet size	1"			
Power consumption	10 W			

Water treatment product range

- Drinking-water systems
- Mechanical filters
- Iron and manganese removal
- Water softeners
- Odour and organic-matter filters
- Reverse-osmosis systems

Services in Estonia

- Advice and water testing
- System selection and quotation
- Delivery and installation
- Start-up and operating guidance
- Maintenance, repair and rebuilding
- Spare parts and after-sales support

Customer service in Peetri

Why WATEX Estonia

- Over 20 years of water-treatment experience
- Practical experience with Estonian water conditions
- Systems selected from water analysis and actual demand
- Installation, start-up, maintenance and spare parts
- Several thousand completed household water-treatment projects



Reti tee 11, Peetri, 75312 Harju County, Estonia

Bring a water sample or discuss the measured water quality, household demand and installation conditions with our team.

+372 58862212

Customer service hours

Monday-Friday 8:30-17:00
Saturday-Sunday closed

Watex Estonia OÜ

Reti tee 11, Peetri, 75312 Harju County, Estonia
+372 58862212
info@veefiltrid.ee
www.veefiltrid.ee

Online shop and product information



Browse water filters, replacement media, spare parts and current product information at veefiltrid.ee.

www.veefiltrid.ee