

WATEX CMS14 DUPLEX WATER SOFTENER — TECHNICAL DATA

Equipment technical parameter	Unit	CMS14 DUPLEX
Nominal flow Q _{nom}	m³/h	4.4
Maximum rated flow Q _{max}	m³/h	6.0
Maximum flow	m³/h	6.0
One-filter capacity between regenerations	m³	15.1
Incoming water basis for calculation		Iron ≤ 0.2 mg/L; hardness ≤ 6.0 mg-eq/L
Regeneration-water volume***	L	320
Salt per regeneration	kg	15.0
Minimum rinse flow	m³/h	0.8
Pressure-vessel diameter	in	14
Pressure-vessel diameter	m	0.36
Pressure-vessel volume	L	145
Filter-media volume	L	100
Overall length (L)	m	1.28
Overall width (W)	m	0.46
Overall height (H)	m	1.91
Connections: inlet / outlet / drain	in	1" / 1" / 1"
Clack control valve		CI 1" NHVB × 2
Treatment capability		Hardness, iron, ammonium, turbidity
Pressure-vessel material		FRP (fibreglass)
Filter media		Resinex KW-8 ion-exchange resin; quartz sand 1 × 3 mm and 3 × 5 mm
Working pressure	bar	2–6
Electrical supply		220 V, 50 Hz, 1 phase
Power consumption	W	3 W



* Filtration rate: 25 BV/h.

** Filtration rate: 40 BV/h.

*** Regeneration-water volume may double if incoming-water quality changes.

WATEX CMS14 DUPLEX WATER-SOFTENER DESCRIPTION

APPLICATION

WATEX CMS14 DUPLEX is a continuous-operation water softener intended mainly for sites that require stable water hardness and iron concentration over extended periods.

FILTER PERFORMANCE

Deposits accumulate in the ion-exchange resin during operation. Salt restores the media, and the rinse water may be discharged to a biological treatment plant where local rules permit. The system has two filter columns, two control valves and two brine tanks. Ion-exchange resin reduces hardness and iron; the control valves regenerate automatically. Capacity between regenerations is calculated from resin quantity and incoming-water quality.

FILTER CONTROL

Clack WS CI control valves use built-in flow meters and regenerate according to measured consumption, reducing unnecessary salt use. A bypass can support efficient maintenance. Program data is retained through a power interruption. Regeneration time, frequency, salt use, hardness and other settings are adjustable. Both columns normally operate; while one regenerates, the other supplies treated water. During regeneration the available treated-water flow is one half of the combined filter flow.

EQUIPMENT OPERATION

Water treated with salt regeneration is suitable for drinking and normal human use when the installation and source-water quality comply with applicable requirements. The system requires electricity, a drain connection and inlet pressure of at least 2.5 bar.

RECOMMENDATIONS

Analyse the raw-water chemistry before selecting or programming the equipment. Install an upstream mechanical prefilter to support long service life.