

## WATEX CMS DUPLEX WATER SOFTENER TECHNICAL DATA

Equipment technical parameters	Unit	Model				
		CMS 8 Duplex	CMS 9 Duplex	CMS 10 Duplex	CMS 12 Duplex	CMS 13 Duplex
Flow rate* Qnom	m³/h	0.8	1.2	2.0	2.8	3.6
Flow rate** Qmax	m³/h	1.2	2.0	3.2	4.4	5.6
Maximum flow rate	m³/h	6.0	6.0	6.0	6.0	6.0
One filter tank capacity between regenerations***	liters	2300	3800	6000	8300	10600
Incoming water quality for calculation		Iron – 0,2 mg/l; Hardness – 6,0 mg-ekv/l				
Amount of water for 1 regeneration	liters	70	100	150	200	250
Salt consumption for 1 regeneration	kg	2.3	3.8	6.0	8.3	10.5
Minimum flow rate for rinsing	m³/h	0.26	0.33	0.41	0.58	0.68
Pressure tank size (diameter)	inches	8	9	10	12	13
	m	0.20	0.23	0.25	0.30	0.33
Pressure tank volume	liters	25	32	64	85	110
Filtering material volume	liters	15	25	40	55	70
Equipment dimensions						
Lenght (L)	m	1.06	1.12	1.18	1.28	1.68
Width (W)	m	0.28	0.28	0.28	0.30	0.46
Height (H)	m	1.14	1.47	1.62	1.57	1.62
Connection incoming/outgoing/drain	inches	1"/1"/1"	1"/1"/1"	1"/1"/1"	1"/1"/1"	1"/1"/1"
Clack control valve		CI 1" NHVB x 2	CI 1" NHVB x 2	CI 1" NHVB x 2	CI 1" NHVB x 2	CI 1" NHVB x 2
Water treatment possibilities		Hardness, Iron, Ammonium, Turbidity				
Pressure tank material		FRP (Fiberglass Reinforced Plastic)				
Filtering material		Ion exchange resins Resinex KW-8, quartz sand 1x3 mm, 3x5 mm				
Working pressure	bar	2-6				
Electric connection		220V, 50Hz, 1 phase				
Electric consumption	W	3 W				

\* Filtration speed 25 BV/h

\*\* Filtration speed 40 BV/h

\*\*\* Volume can multiply if incoming water quality changes



## WATER SOFTENING FILTER WATEX CMS DUPLEX DESCRIPTION

### APPLICATION

WATEX CMS DUPLEX series water softeners are continuous water softening equipment, which is mainly used in production plants, where it is necessary to ensure constant water hardness and iron content for a long period of time.

### FILTER PERFORMANCE

During the operation of the filters, deposits accumulate in the filter material (ion exchange resin) over time. A reagent - salt - is used to restore the filter material. Although the equipment uses reagents, the rinsing water can be fed into biological treatment plants. The unit consists of 2 filter columns, 2 control units and 2 salt tanks. The filter column is filled with ion exchange resin, which ensures a decrease in water hardness and a decrease in iron concentration. The control valve automatically performs filter regeneration. The salt tank contains crushed salt tablets, which are used in regeneration processes. The capacity of the filters between the regeneration capacities is calculated based on the amount of resin in them and the quality of the incoming water.

### FILTER CONTROL

WATEX CMS DUPLEX units are equipped with Clack WS CI control valves, which have a built-in flow meter and which regenerates the filters based on the amount of water consumed. Accounting for water consumption reduces the amount of salt needed. The water softener can be equipped with a bypass for easy and efficient maintenance. The control unit saves all information even in the event of a power failure. It is possible to set a number of parameters for the device depending on the needs and wishes of consumers. Regeneration time, frequency, reagent consumption, water hardness and other parameters can be adjusted. 2 control units ensure constant water quality - both filter columns operate simultaneously when one filter column is rinsed the other continues to operate providing consumers with purified water. Half of the filter flow is provided during filter rinsing.

### EQUIPMENT OPERATION

Although salt tablets are used for regeneration, the water can be safely used for drinking and other human needs. The water softening equipment requires electricity and sewerage connection, inlet water pressure with a minimum pressure of 2.5 bar.

### RECOMMENDATIONS

Recommendation! Before selection of equipment, it is recommended to test raw water chemical composition. Recommendation! Before the water filter, it is preferable to install mechanical filter to ensure long-term equipment service life.