microlene

WS

Microlene Kinetico ESSENTIAL11 Water Softener

Model Number: ESSENTIAL11

Applications

Ideal for removing hardness from water sources to supply soft water to:

- make cleaning easier
- make clothes and hair softer
- reduce scale in pipes and appliances

Benefits of Microlene's Kinetico ESSENTIAL11 Water Softeners

This single-tank system uses state-of-the art technology. A stylish, yet compact cabinet design ensures it will fit neatly into it's proposed application easily and effortlessly. The ESSENTIAL11 unit is super easy to maintain, and non-electric, powered by the kinetic force of moving water, with no timers needed to be set. All you need to do is simply add salt!

BRINE SYSTEM

A combination salt storage and brine production tank shall be manufactured of corrosion resistant, rigid polypropylene with an acrylic lid. The brine tank shall have an internal brine well chamber to house the brine valve assembly. The brine float assembly has one fixed salt setting and shall provide for a shutoff to the brine refill. The brine tank shall include a safety overflow connection to be plumbed to a suitable drain.

OPERATING PROFILE

The softener shall remove hardness to less than 17.1 mg/L (1 gpg) when operated in accordance with the operating instructions. The system shall provide soft water using a simplex (single tank) configuration. System regenerations shall be initiated based on gallons processed. The adjustable meter shall allow regenerations to be set within 37.9 liter (10 gallon) increments.

CONDITIONING MEDIA

Each softener shall use non-solvent, cation resin having a minimum exchange capacity of 971,000 g/L (30,000 grains/ft3) of CaCO3 when regenerated with 240 g/L (15 lbs/ft3) of salt. The media shall be solid, of a proper particle size and shall contain no plates, shells, agglomerates or other shapes that might interfere with the normal function of the water softener.

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REGENERATION CONTROL VALVE

The regeneration control valve shall be top mounted (top of media tank), and manufactured from non-corrosive materials. Control valve shall not weigh more than 2.0 kg (4.4 lbs). Control valve shall operate using a minimum pressure of 1.7 bar (25 psi). Pressure shall be used to drive all valve functions. Control valve shall incorporate five operational cycles including; service, brine draw, slow rinse, fast rinse and brine refill. Service cycle shall operate in an upflow direction. The brine cycle shall flow downflow, providing countercurrent regeneration. Control valve shall contain a fixed orifice eductor nozzle and a backwash flow control. The control valve will allow the by- pass of untreated water to service during the regeneration cycle.

MEDIA TANKS

The tanks shall be designed for a maximum working pressure of 8.6 bar (125 psi) and hydrostatically tested at 20.7 bar (300 psi). Tanks shall be made of polyethylene and reinforced with a fiberglass wrapping. Tank shall have a 63.5 mm (2.5 in) threaded top opening. Tank shall be NSF/ANSI 44 approved. Upper and lower distribution system shall be of a cone slot design. Distribution system shall provide even distribution of regeneration water and the collection of processed water.

SPECIFICATIONS		
DESIGN SPECIFICATIONS		
Service Flow Rate	36 Lpm	9.5 gpm
Flow Rate @ 15 psid	36 Lpm	9.5 gpm
Pressure Range	1.7 – 8.6 bar	25 – 125 psi
Temperature Range	2 – 50 °C	35 - 120° F
Free Chlorine	≤ 1.0 mg/L	≤ 1.0 mg/L
Compensated Hardness	≤ 730 mg/L	≤ 42 gpg
Iron (ferrous)	< 0.5 mg/L	< 0.5 mg/L
Iron (ferric)	< 0.01 mg/L	< 0.01 mg/L
SYSTEM COMPONENTS		
Media Vessel (Qty. 1)	203 mm x 432 mm	8″ x 17″
Media Vessel Construction	Fiberglass Wrapped Polyethylene	
Empty Bed Volume	10.5 liters	0.37 cubic feet
Media Type	Fine Mesh Resin	
Media Volume (per tank)	10.5 liters	0.37 cubic feet
Total Bed Depth	432 mm	17″
Free Board	None	
Riser Tube	27 mm ABS	1.05″ ABS
Upper Distributor	0.18 mm Slots, Cone Type	0.007″ Slots, Cone Type
Lower Distributor	0.18 mm Slots, Cone Type	0.007″ Slots, Cone Type
Regeneration Control	Volumetric	
Service Flow	Upflow	
Regeneration Flow	Downflow	
Regeneration Type	Countercurrent	
Hard Water By-pass During Regeneration	Automatic	
Salt Capacity (Pellet)	30.8 kg	68 lbs.
System By-pass	Included	
CONNECTIONS		
Inlet / Outlet Connections	Custom Adapter and Bracket	
Drain Connection	0.5″ Quick Connect Tubing	
Brine Line Connection	0.375″ Quick Connect Tubing	
Brine Tank Overflow	0.625″ Tubing Barb	
Power	None	

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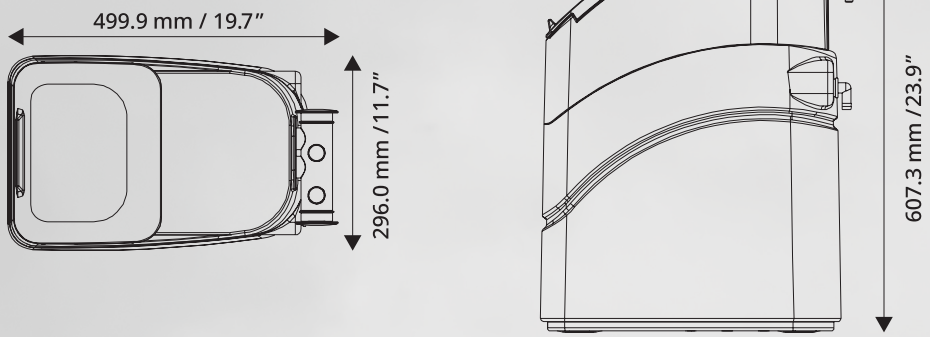
DIMENSIONS AND WEIGHT		
Height	607.3 mm	23.9 in.
Width	296.0 mm	11.7 in.
Depth	499.9 mm	19.7 in.
Shipping Weight	22.7 kg	50 lbs.
Operating Weight	59.0 kg	130 lbs.
REGENERATION SPECIFICATIONS AT 35 PSI		
Offline Time during Regeneration Cycle	13.5 minutes	
Total Regeneration Cycle Time	15 minutes	
Total Regeneration Volume	25 liters	6.6 gallons
Salt Used per Regeneration	0.36 kg	0.8 lbs.
Salt Dose	33.7 grams NaCl/liter resin	2.1 lbs./cu. ft.
System Capacity	237 grams	3,660 grains
Backwash Flow Rate	3.78 Lpm	1.0 gpm

ESSENTIAL11

Setting		A	B	C	D	E	F	----	G	----	H	----	I	-	----	-	J	-	Edge
Max Hardness	ppm	79	88	98	111	128	152	167	185	209	238	278	334	358	417	501	549	602	730
	°TH	8	9	10	11	13	15	17	19	21	24	28	33	36	42	50	55	60	73
	°dH	4	5	6	6	7	9	9	10	12	13	16	19	20	23	28	31	34	41
	gpg	4	5	5	6	7	8	9	10	12	13	16	19	20	24	29	32	35	42

CAUTION! DO NOT SET IN BLACK AREA!

Dimensions (mm)



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