

CP 213s OD

System Components

Media Vessel (Qty.) Size	(2) 330 x 1,372 mm
Media Vessel Construction	Wrapped Polyethylene
Empty Bed Volume	104 liters
Media	71 liters Non Solvent Cation Resin
Bed Depth / Free Board	1,016 / 356 mm
Riser Tube	125 mm ABS
Distributor Upper	0.36 mm Slots, ABS Basket
Lower	0.36 mm Slots, ABS Basket
Under bedding	7 liters (11 kg), ¼ x ½ Gravel
Regeneration Control	Non-electric Use Meter
Regeneration Type	Countercurrent
Meter Type	2.8 – 151.4 lpm Polypropylene Turbine (Kinetico Full Louver Flow Nozzle)

Inlet Water Quality

Pressure Range	2.0 – 8.6 bar Dynamic Pressure
Temperature Range	2 – 50° C
pH Range	5 – 10 SU
Free Chlorine Cl ₂ (Max.)	2.0 mg/L
Hardness as CaCO ₃ (Max.)	872 mg/L

Operating Specs

Flow Range – Overdrive (1-2 Δ bar)	106 – 151 lpm
Flow Range – Alternating (1-2 Δ bar)	76 – 114 lpm
Dimensions (Width x Depth x Height)	686 x 330 x 1,524 mm
Weight (Operating / Shipping)	204 / 136 kg

Connections

Inlet / Outlet Connections	Custom Adapter and E-clip (1 ½" Brass Sweat Fittings Included)
Drain Connection	0.625" Tube
Brine Line Connection	0.375" Tube
Power	None

System Part Numbers

CP 213s OD, 24 X 40 brine tank (Qty.)	11750 (2)
CP 213s OD, no brine tank, media separate (Qty.)	11153 (2)
CP 213s OD, empty, no brine tank (Qty.)	11184 (2)

Brine Tank Options

Tank Description	610 x 1,016 mm
Brine Tank Part Number	10586
Material	HDPE
Salt Capacity	227 kg

Regeneration Specifications

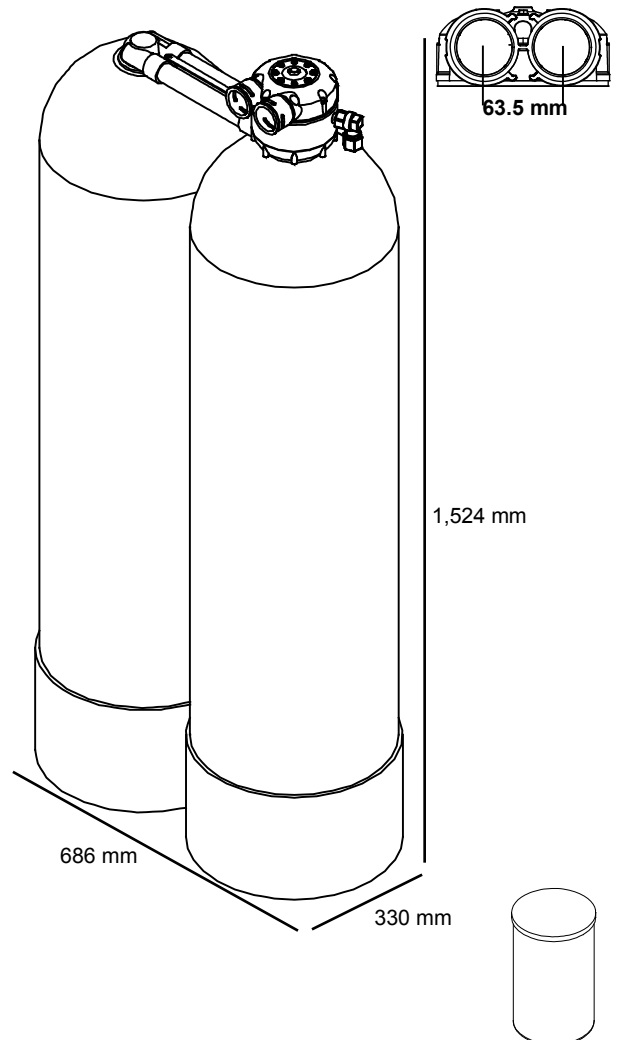
Regeneration Volume / Time	538 liters / 90 minutes
Backwash Flow Control	18.9 lpm
Brine Refill Flow Control	2.7 lpm

Overdrive Operation

Setting	Capacity	Efficiency	Dosing	Meter Disc	1	2	3	4	5	6	7	8
6.8 kg	3,883 grams	571 grams/kg	0.1 kg /l		86	171	239	291	359	427	513	589
11.3 kg	4,531 grams	400 grams/kg	0.16 kg/l		103	205	274	342	410	213	599	684
		Peak flow (lpm) during regeneration:			106	106	106	78	59	47	38	31

Alternating Operation

Setting	Capacity	Efficiency	Dosing	Meter Disc	1	2	3	4	5	6	7	8
6.8 kg	3,883 grams	571 grams/kg	0.1 kg /l		103	205	308	410	513	599	684	770
11.3 kg	4,531 grams	400 grams/kg	0.16 kg/l		120	239	359	479	581	684	770	872
		Flow (lpm) during regeneration (@1 Δ bar):			76	76	76	76	59	47	38	31
		M³/Regeneration:			33.8	16.9	11.3	8.4	6.8	5.6	4.8	4.2



Disc Selection

(Compensated Hardness*)

1	2	3	4	5	6	7	8
86	171	239	291	359	427	513	589
103	205	274	342	410	213	599	684
106	106	106	78	59	47	38	31

1	2	3	4	5	6	7	8
103	205	308	410	513	599	684	770
120	239	359	479	581	684	770	872
76	76	76	76	59	47	38	31
33.8	16.9	11.3	8.4	6.8	5.6	4.8	4.2

*Compensated hardness in mg/L = Hardness + (51 x Fe in mg/L)

Operating Profile

Softener shall remove hardness to less than 8 mg/L when operated in accordance with the operating instructions. The system shall include two tanks. This duplex configuration shall be flexible to operate in alternating or parallel mode depending on installed program disc. In alternating mode, one tank will be on-line during service. In parallel mode, both tanks will be on-line during service. With either mode, during regeneration cycles, one tank shall provide water to service and to the regenerating tank. An external hydraulic signal shall initiate system regeneration. Service flow shall be downflow and regeneration flow shall be upflow.

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 four pounds. Control valve shall provide service and regeneration control for two media tanks. Inlet and outlet ports shall accept a quick connect, double O-ring sealed adapter. Interconnection between tanks shall be made through the regeneration valve with a quick connect adapter. Control valve shall operate using a minimum inlet pressure of 2 bar. Pressure shall be used to drive all valve functions. No electric hook-up shall be required. Control valve shall incorporate four operational cycles including; service, brine draw, slow rinse, and a combined fast rinse and brine refill. Service cycle shall operate in a downflow direction. The brine cycle shall flow upflow, opposite the service flow, providing a countercurrent regeneration. Control valve shall contain a fixed orifice eductor nozzle and self-adjusting backwash flow control. The control valve will prevent the bypass of hard water to service during the regeneration cycle.

Media Tanks

The tanks shall be designed for a maximum working pressure of 8.6 bar and hydrostatically tested at 20.7 bar. Tanks shall be made of polyethylene and reinforced with a fiberglass wrapping. Each tank shall include a 2.5 in. threaded top opening. Each tank shall be NSF approved. Upper and lower distribution system shall be of a slot design. Distributors will provide even flow of regeneration water and the collection of processed water.

Conditioning Media

Each softener shall include a non-solvent, high capacity cation resin having a minimum exchange capacity of 68.6 grams per liter of resin when regenerated with 0.24 kg of salt, per liter of resin. The media shall be solid, of a proper particle size and shall contain no plates, shells, agglomerates or other shapes, which might interfere with the normal function of the water softener.

Brine System

A combination salt storage and brine production tank shall be manufactured of corrosion resistant, plastic. The brine tank shall have a chamber to house the brine valve assembly. The brine float assembly shall allow for adjustable salt settings 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.