



Design Specifications

Flow Rate 15 psid	90 gpm
Flow Rate 30 psid	128 gpm
Pressure Range*	35 – 125 psig
Temperature Range	35 – 120° F
Free Chlorine	≤ 2.0 mg/L
Compensated Hardness	≤ 100 gr/g
Iron	If ≥ 5 mg/L, consult Technical Service

System Components

Media Vessel (qty) Size	(2) 18" x 65"
Media Vessel Construction	Wrapped Polyethylene
Empty Bed Volume (per tank)	8.3 ft ³
Media Type	Non-Solvent, High-Capacity Cation Resin
Media Volume (per tank)	5 ft ³
Under Bedding Volume (per tank)	1 ft ³
Total Bed Depth	34"
Free Board	20"
Riser Tube	2.0" PVC
Upper Distributor	0.012" Slots, Engineered Plastic Material
Lower Distributor	0.012" Slots, Polyethylene Hub and Laterals
Regeneration Control	7-Day Controller
Regeneration Type	Countercurrent
Untreated Water Bypass During Regeneration	No
Water Used for Regeneration	Soft Water
Recommended Brine Tank	(2) 24" x 50"
Salt Capacity (per tank)	850 pounds
Maximum Brine Dosing (per tank)	75 pounds

Connections

Inlet / Outlet Connections	E-clip Adapter
Drain Connection	E-clip Adapter
Brine Line Connection	0.5" Tube
Power, Valve	None
Power, Control Box	12 VDC

Part Numbers

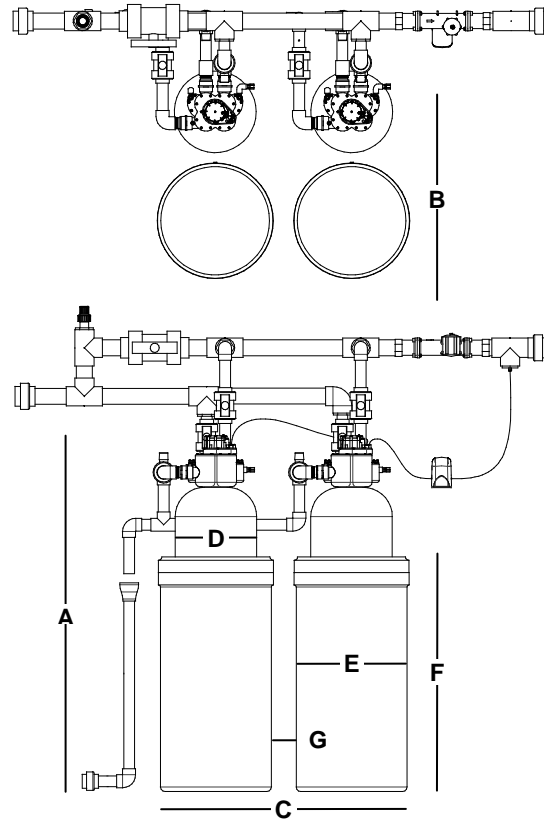
System (quantity)	(2) H12245
Brine Tank (quantity)	(2) 68370b
Controls	See Smart Start Controller Data Sheet

Regeneration Specifications (per tank)

Sequence	Flow	Time	Volume
Brine	1.7 gpm	46 minutes	77 gallons
Slow Rinse	1 gpm	38 minutes	51 gallons
Backwash	8 gpm	10 minutes	85 gallons
Purge	8 gpm	10 minutes	85 gallons
Total	N/A	104 minutes	304 gallons

Salt Dose	5 lbs/ft ³	7.5 lbs/ft ³
System Capacity	217 Kgr	260 Kgr
Salt Used (per tank)	25 pounds	38 pounds

*This value assumes there is a 5 psi pressure drop through the system.



Dimensions and Weight

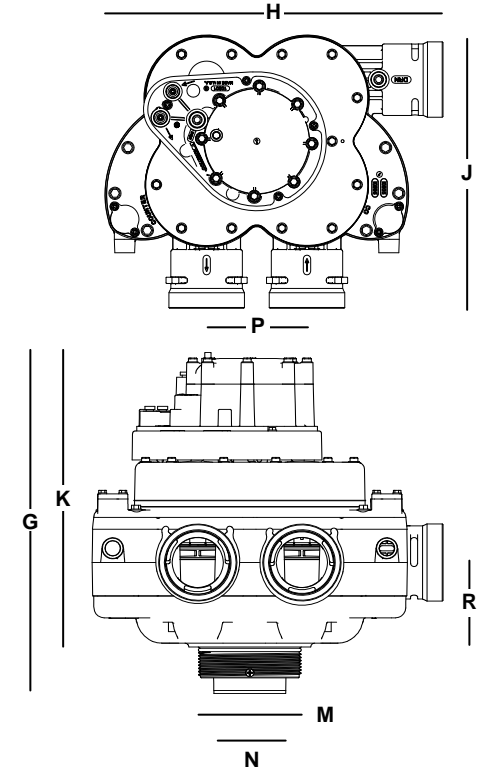
System

Overall Height	(A)	78.5"
Overall Depth	(B)	46"
Overall Width	(C)	52.0"
Tank Width	(D)	18"
Brine Tank Width	(E)	24"
Brine Tank Height	(F)	50"
Inter-Tank Spacing	(G)	≥ 4"
Shipping Weight		1,024 pounds
Operating Weight		1,965 pounds

Valve

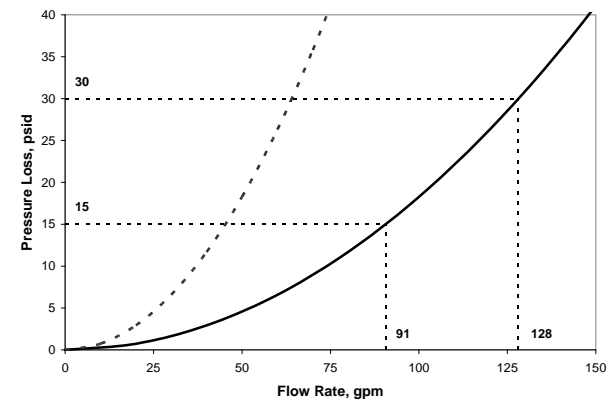
Overall Height	(G)	13.25"
Overall Width	(H)	14"
Overall Depth	(J)	11"
Installed Height	(K)	11.5"
Tank Thread	(M)	4-8 UN
Riser Tube (OD)	(N)	2.8"
Inlet/Outlet Centerline	(P)	4.06
Inlet/Outlet/Drain Center Installed Height	(R)	3.34
Valve Weight		14.3 pounds

HS 218s OD Softener



System Flow Performance

During Regeneration





HYDRUS

HS 218s OD Softener

Operating Profile

The softener reduces hardness to less than one grain per gallon when the operating instructions are followed. A multi-tank system configuration provides soft water, and system regenerations are initiated based on the volume of water that is processed. With a programmable meter, regenerations can be programmed based on the volume of water used. Regeneration occurs immediately after the exhaustion signal from the meter. A system control can also delay regeneration until a specific time after the exhaustion signal. Regeneration efficiency (hardness removed per volume of salt used) exceeds 4,000 grains/lb. Regeneration efficiency shall be certified through NSF/ANSI Standard 44 approval.

Regeneration Control Valve

The regeneration control valve, manufactured from non-corrosive materials, is top mounted (on top of the media tank). The control valve does not weigh more than 15 lbs. and operates using a minimum outlet pressure of 30 psi. Pressure drives all valve functions. The control valve incorporates six operational cycles including: service, brine draw, slow rinse, backwash, purge and brine refill. The service cycle operates in a down-flow direction; the brine cycle is up-flow, providing countercurrent regeneration. The control valve contains a fixed orifice eductor nozzle and a backwash flow control. Control Valve shall be certified to standard NSF/ANSI 61.

Media Tanks

The tanks are designed for a maximum working pressure of 125 psi and are hydrostatically tested at 300 psi. The tanks are made of polypropylene and are reinforced with a fiberglass wrapping. The tank has a 4 in. threaded top opening and is NSF/ANSI standard 44 approved. The upper distribution system is a slot design; the lower distribution system is a hub and lateral design. The distribution system provides even distribution of regeneration water and the collection of water.

Conditioning Media

Each softener uses strong acid, non-solvent, high capacity, cation resin with a minimum exchange capacity of 30,000 grains removed per cubic foot of media when regenerated with a dose of 15 lbs. of salt per cubic foot of media. The media is solid, of a proper particle size and contains no plates, shells, agglomerates or other shapes that might interfere with the normal function of the water.

Brine System

A combination salt storage and brine production tank are manufactured of corrosion-resistant, rigid polyethylene. The brine tank has an internal brine well chamber to house the brine valve assembly. The brine float assembly with adjustable salt settings provides for a shut-off to the brine refill. The brine tank includes a safety overflow connection that's plumbed to a suitable drain.