

**In Japan**  
Everpure Japan LLC  
Hashimoto MN Bldg. 7F  
3-25-1 Hashimoto Sagamihara-Shi  
Kanagawa 229-1103  
JAPAN  
TEL: 81 (0)42.775.3011  
FAX: 81 (0)42.775.3015

**Worldwide Headquarters**

Everpure, LLC  
1040 Muirfield Dr.  
Hanover Park, Illinois 60133  
U.S.A.  
TEL: 800.323.7873 (US only)  
TEL: 630.307.3000  
FAX: 630.307.3030  
E-MAIL: info@everpure.com

**In Europe**  
Everpure Europe B.V./B.A.  
Industriepark Wolfstee  
Toekomstlaan 30  
B-2200 Herentals  
BELGIUM  
TEL: +32.(0).14.283.500  
FAX: +32.(0).14.283.505

[www.everpure.com](http://www.everpure.com)  
[www.pentair.com](http://www.pentair.com)



EV701346-0507



**EVERPURE**

COMMERCIAL WATER SOFTENING PRODUCT PORTFOLIO

**BUILT RUGGED**  
FOR DEMANDING ENVIRONMENTS.

## Quality water is vital to your operation.

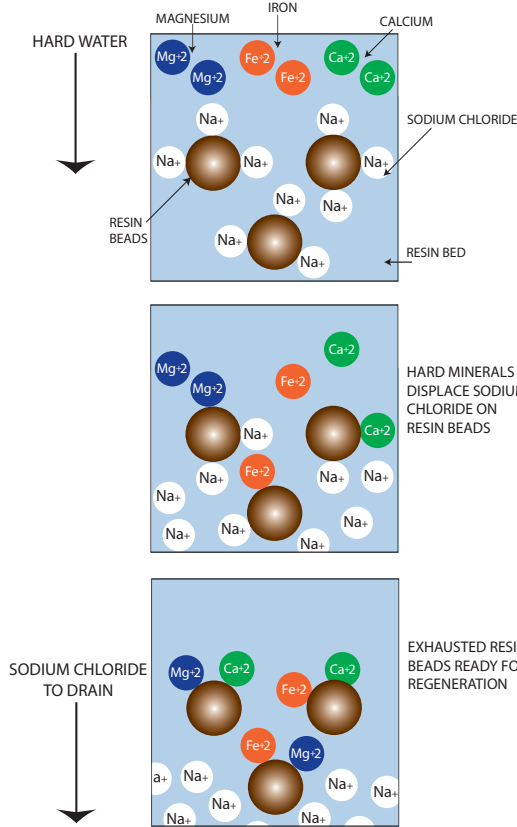
There are contaminants in nearly all water that over time affect the efficiency of your plumbing and your water-using equipment. Water is a natural solvent, and as it passes through soil and limestone it picks up minerals. These minerals make water "hard", and hard water can wreak havoc on water heaters, pipes, faucets, toilets, laundry, dishwashers, coffee brewers and other equipment that use water. Common culprits for causing hard water are calcium and magnesium.

Calcium and magnesium, when evaporated from water or combined with heat, can form hard, chalky deposits known as limescale. These deposits can clog pipes, reducing flow, and coat heating elements, requiring more energy to heat water. Your operation loses efficiency, and your maintenance and energy costs rise.



### The Ion Exchange Process

Water softeners can remove dissolved calcium and magnesium through a process known as "ion exchange". Systems consist of two tanks: a resin tank and a brine tank. The resin tank contains a bed of negatively charged cation resin (small plastic beads), that are coated with sodium ions (Na+). As hard water passes through this bed, the positively charged calcium (Ca++) and magnesium (Mg++) ions exchange with sodium ions and are captured by the beads, causing the sodium to release into the water. Since the sodium in the water is harmless to plumbing and equipment, this "soft" water is now ready for use by your operation.



During the exchange process, the sodium charge eventually depletes. When near depletion, the softener is regenerated to recover the exchange capacity. High concentration sodium chloride solution is drawn from the brine tank and passed through the resin bed. The positively charged sodium ions in the solution displace the calcium and magnesium ions, releasing them back into the solution. These hardness ions are then flushed down the drain.

### Measuring Grains of Hardness

Hardness of water is measured in grains per gallon (GPG) or sometimes in parts per million (PPM). One GPG equals 17.1 ppm (Mg/l). Generally water with GPG of 7 or more is considered hard. In certain foodservice applications this level of hardness can be less than seven (7). To determine the hardness of your water, it can be tested using simple test strips or a titration drop test. Everpure can provide an analysis of your water to determine the correct water treatment solution for your operation.

Water	Grains/Gallon	mg/L or ppm
Soft	<1.0	0 - 17.1
Slightly Hard	1.0 to 3.5	17.1 - 60
Moderately Hard	3.5 to 7.0	60 - 120
Hard	7.0 to 10.5	120 - 180
Very Hard	>10.5	180+

**What a water softener does not do.** Water softeners are cation exchangers meaning they will exchange positive ions such as calcium, magnesium, iron, copper, zinc, manganese, and other metals. Water softeners do not filter water; they merely exchange hardness ions for sodium ions. Sediment, chemicals and organics that can affect the appearance, taste and odor of your water are not affected by softening your water. For these, you should consider an Everpure filtration system, or an Everpure reverse osmosis system.



## Everpure, a division of Pentair Water, is the worldwide leader in foodservice water treatment solutions.

Everpure is the worldwide leader in foodservice water treatment solutions and water management. Since 1933, our total focus has been water. We've dedicated ourselves to understanding water and how it affects your business. We've applied ourselves to developing innovative and effective treatment solutions to ensure the best quality water anywhere. And we've committed ourselves to providing the absolute best service.

### Quality

Our water softeners feature components from other Pentair Water divisions representing some of the most well-known brands in their respective industries, including:



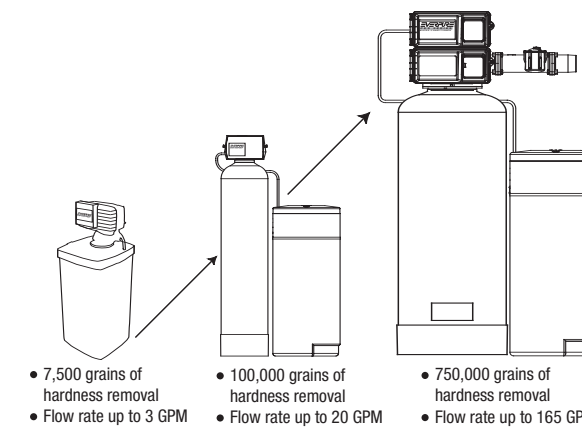
**Fleck Control Valves** are world-renowned for superior quality and extra-long service life. For over 50 years, they've led the way in advancing technology for commercial and industrial water treatment markets, and today they are the leader in water treatment controls.



**Structural** leads the industry with highly advanced manufacturing facilities and over 40 years of experience. They invented composite pressure vessels, and were among the first to use fiberglass-reinforced plastic in their patented manufacturing process.

### Selection

We offer a full line of commercial water softeners, from small under counter systems for point-of-use espresso applications, to large softeners with flow rates of 165 gallons per minute and more than 750,000 grains of hardness removal capacity, ideally suited for retail superstores and other whole facility applications.



### Warranty

Everpure water softener systems are warranted to be free from defects in material and/or workmanship under normal use and service for a period of five (5) years from the date of shipment from our plant. When issues arise, you can simply call Everpure's Service Hotline at 800.323.7873.



### Features and Benefits

- Backed by Everpure's customer service, installation and service teams
- Hardness removal from 7,500 to 750,000 grains
- Meter initiated regeneration minimizes salt, water and electrical costs
- Advanced user-friendly controls that are simple to service
- Fiberglass reinforced resin vessels with NSF approved polyethylene liners eliminate worries about corrosion

### Applications

- Espresso
- Warewashing
- Reverse Osmosis Pre-treatment
- Laundry
- Water Heater Scale Prevention/Reduction
- Food Service
- Grocery
- Boiler Scale Control
- Retail

### Installation and Support

Our service network is made up of companies who will ensure that your softener system is installed professionally and efficiently. Product failures are very limited, due to the smart design and superior quality of our products. However, when issues do arise, our Technical Support Team and our Everpure Water Authority Dealer Network will provide a quick resolution.



**Backed by Everpure, the Leading Brand in Commercial Water Treatment**

Since 1933, Everpure has been providing water treatment solutions for foodservice and other commercial industries. Our water softening line of products is another example of our commitment to providing the highest quality products to solve your water problem.

**Exceptional Service and Support**

We provide the complete package of professional services, from sizing, installation, servicing and technical support.

**High Performance Fleck Control Valves**

We offer Fleck valves. Fleck is the worldwide leader in water softening controls, and is renowned for reliability and performance.

- Machined with state-of-the-art tools.
- Time-tested technology.
- Advanced user-friendly controls incorporate two time-tested hydraulically balanced pistons to independently pilot service flow and regeneration (available on some models).
- Designed to withstand rigorous fatigue testing, passing 250,000 pressure cycles at up to 190 psi, as well as 10,000 complete regeneration cycles. That's the equivalent of 27 years of uninterrupted daily use.

**Wide Range of Sizes and Configurations**

Models available from point-of-use under counter softeners to large systems for high volume operations.

**5-year Limited Warranty on Complete System**

Our water softening systems are warranted to be free from defects in material and/or workmanship under normal use and service for a period of five (5) years from the date of shipment from our plant. See warranty for complete details.

**Easy to Service, With Low Maintenance**

- Easy, friendly programming.
- A single moving part in contact with the water, the piston, lowers maintenance.
- Self cleaning. Teflon coating prevents stickiness that results from precipitated calcium, magnesium and other dissolved minerals. With each regeneration, a full stroke against the seals wipes the piston clean.

**Efficient Operation**

- Meter initiated regeneration minimizes salt, water and electrical costs.
- Meters are made of lead-free brass or tough, corrosion resistant plastic.

**Available as Duplex Alternating System**

Alternating tank configurations provide continuous soft water supply and reduced salt usage.

**The Ideal Pressure Tanks**

Our pressure vessels offer tremendous strength and durability, for maximum reliability.

- Fiberglass reinforced resin vessels with polyethylene liners eliminate worries about corrosion.
- Endured 250,000 cycle testing without leakage.
- Meets NSF design parameters (minimum burst at 600 psi).

**Heavy Duty Brine Tanks**

Constructed from quality FDA approved materials, our tanks are built to withstand the rigors of commercial environments.

- Rigid, high-impact, non-toxic polyethylene provides exceptional resistance to stress cracks.
- Quality production technology for years of trouble free performance.



**Flow rates of 3 GPM or less.**

If space is an issue, or your situation requires a point-of-use (POU) softener system, we can provide a system to meet your needs.

**Space Saving Softeners**

Need an under counter softener for your espresso machine? Or a small footprint softening system for your warewashing machine? We can help. We can provide softening systems that are designed especially for operations with space restrictions, or specialty applications requiring hardness removal as low as 7,500 grains.



**Cabinet Softeners**

**WS Series Single Tank Water Conditioner**

- 1" porting
- Hardness removal of 30,000 to 45,000 grains
- Flow rates of up to 12 gallons per minute continuous
- Meter initiated regeneration
- Easily adjustable 5-cycle control

**Designed for operations with low volume soft water usage and limited space:**

- Point of use applications including warewashing and espresso
- Boiler scale control
- Specialty coffee

**Specifications**

Model	Part Number	Tank	Rated Capacity (grains)	Service Flow Rate		Pipe Size (in)	Resin Volume (ft <sup>3</sup> ) Per Tank	System Dimensions* (W x D x H inches)	Brine Tank Salt Capacity (lbs)	Ship Wt (lbs)
				Continuous @ 15 PSI DP (gpm)	Intermittent @ 15 PSI DP (gpm)					
WS-7.5	EV9980-17	Single	7,500	3	5	.75	.25	11x11x28	25	25
WS-30	EV9980-10	Single	30,000	10.0	14	1	1	13x22x45	300	90
WS-45	EV9980-11	Single	45,000	12.0	16	1	1.5	37x22x68	335	125

*\*When determining system space requirements, refer to spec sheet for physical arrangement. Installations requiring re-arrangement of tanks, or separation of tanks, may need additional clearance.*

**Need a point of use softening solution for a specialty coffee application?**

Consider our unique 3-stage blending quick change cartridge system. It features ion exchange softening, pH buffering and carbon filtered water. The benefits include reduced hardness, chlorine and off tastes and odors. The pH buffering prevents water from becoming too acidic. Available in systems from 4,100 up to 21,200 grains of capacity.



Flow rates up to 20 GPM.

**CES 2750 Series  
Single Tank Water Conditioner**

- 1" porting
- Hardness removal of 34,000 to 101,000 grains
- Flow rates of up to 20 gallons per minute continuous
- Meter initiated regeneration
- Easily adjustable 5-cycle control

**Designed for operations with low volume soft water usage:**

- Point of use applications including warewashing and espresso
- Boiler scale control
- C-Stores
- Specialty coffee

*Salt Recommendation.* Use a high quality salt, labeled for use in water softeners. Solar salt is recommended. Pellet can also be used if solar salt is not available. Rock salt is not recommended, due to the higher level of impurities it may contain.



**CES 9000 Series  
Twin Tank Water Conditioner**

- 1" porting
- Alternating twin tank design for continuous soft water supply and reduced salt usage
- Hardness removal of 34,000 to 101,000 grains
- Flow rates of up to 16 gallons per minute continuous
- Meter initiated regeneration
- Easily adjustable 5-cycle control

**Designed for operations with low volume soft water usage, and requiring continuous flow with no regeneration interruption:**

- All night C-stores
- Boiler feed
- Continuous operation-type equipment

Model	Part Number	Tank	Rated Capacity (grains)	Service Flow Rate		Pipe Size (in)	Resin Volume (ft <sup>3</sup> ) Per Tank	System Dimensions* (W X D X H inches)	Brine Tank Salt Capacity (lbs)	Ship Wt (lbs)
				Continuous @ 15 PSI DP (gpm)	Intermittent @ 25 PSI DP (gpm)					
CES-2750M-34	EV9982-21	Single	34,000	16	20	1	1	34x23x65	425	120
CES-2750M-51	EV9982-22	Single	51,000	17	22	1	1.5	35x23x71	425	150
CES-2750M-68	EV9982-23	Single	68,000	19	25	1	2	37x23x69	425	190
CES-2750M-101	EV9982-24	Single	101,000	20	26	1	3	45x28x82	750	280
CES-9000M-34	EV9985-00	Twin	34,000	14	18	1	1	48x23x57	425	200
CES-9000M-51	EV9985-01	Twin	51,000	14	18	1	1.5	49x23x64	425	260
CES-9000M-68	EV9985-02	Twin	68,000	15	20	1	2	51x23x62	425	330
CES-9000M-101	EV9985-03	Twin	101,000	16	20	1	3	63x28x74	750	500

\*When determining system space requirements, refer to spec sheet for physical arrangement. Installations requiring re-arrangement of tanks, or separation of tanks, may need additional clearance.

Flow rates up to 37 GPM.

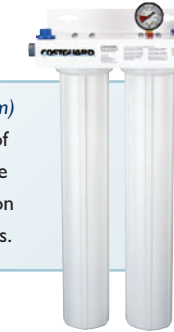
**CES 2850 Series  
Single Tank Water Conditioner**

- 1.5" porting
- Hardness removal of 68,000 to 171,000 grains
- Flow rates of up to 37 gallons per minute continuous
- Meter initiated regeneration
- Easily adjustable 5-cycle control

**Designed for operations with low to medium volume soft water usage:**

- Full service restaurants
- C-stores

High levels of dissolved (ferrous) iron and manganese (>5 ppm) can damage your softening resin. To prolong the lifespan of your water softener when these minerals are excessive, we recommend a prefilter. Also, use a salt that contains an "fighting" additive, or use a resin cleaner on a regular basis.



**CES 9500 Series  
Twin Tank Water Conditioner**

- 1.5" porting
- Alternating twin tank design for continuous soft water supply and reduced salt usage
- Hardness removal of 68,000 to 169,000 grains
- Flow rates of up to 31 gallons per minute continuous
- Meter initiated regeneration
- Easily adjustable 5-cycle control

**Designed for operations with low to medium volume soft water usage, and requiring continuous flow with no regeneration interruption:**

- 24-hour restaurants
- Vehicle wash
- Boiler feed
- Linen care

Model	Part Number	Tank	Rated Capacity (grains)	Service Flow Rate		Pipe Size (in)	Resin Volume (ft <sup>3</sup> ) Per Tank	System Dimensions* (W X D X H inches)	Brine Tank Salt Capacity (lbs)	Ship Wt (lbs)
				Continuous @ 15 PSI DP (gpm)	Intermittent @ 25 PSI DP (gpm)					
CES-2850M-68	EV9983-21	Single	68,000	27	35	1.5	2	37x23x63	425	200
CES-2850M-102	EV9983-22	Single	102,000	32	42	1.5	3	45x28x74	750	290
CES-2850M-136	EV9983-23	Single	136,000	34	44	1.5	4	46x28x74	750	360
CES-2850M-171	EV9983-24	Single	171,000	37	48	1.5	5	49x28x77	750	450
CES-9500M-68	EV9986-00	Twin	68,000	25	32	1.5	2	56x23x63	425	360
CES-9500M-101	EV9986-01	Twin	101,000	28	36	1.5	3	64x28x74	750	520
CES-9500M-135	EV9986-02	Twin	135,000	30	39	1.5	4	66x28x74	750	660
CES-9500M-169	EV9986-03	Twin	169,000	31	40	1.5	5	73x28x77	750	840

\*When determining system space requirements, refer to spec sheet for physical arrangement. Installations requiring re-arrangement of tanks, or separation of tanks, may need additional clearance.

Flow rates up to 73 GPM.

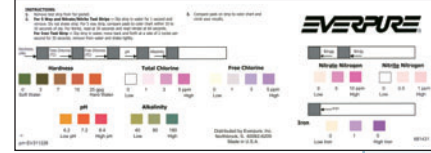
**CES 2900 Series  
Single Tank Water Conditioner**

- 2" porting
- Hardness removal of 136,000 to 512,000 grains
- Flow rates of up to 73 gallons per minute continuous
- Meter initiated regeneration
- Easily adjustable 5-cycle control

**Designed for operations with high volume soft water usage:**

- Full service restaurants
- Retail superstores - hot side only

*Do you know what's in your water?* Determining the quality of your water is the first step to applying the correct water treatment. Hardness, chemicals, total dissolved solids and sediment can all impact your operation. We can analyze your water, and your unique situation, and recommend the right mix of products to ensure your water is exactly as it should be.



**CES 2900DA Series  
Duplex Alternating Twin Tank Water Conditioner**

- 2" porting
- Duplex Alternating twin tank configuration for continuous soft water supply and reduced salt usage
- Hardness removal of 136,000 to 512,000 grains
- Flow rates of up to 73 gallons per minute continuous
- Meter initiated regeneration
- Easily adjustable 5-cycle control

**Designed for operations with high volume soft water usage, and requiring continuous flow with no regeneration interruption:**

- Full service 24-hour restaurants
- Linen care
- Vehicle wash

Model	Part Number	Tank	Rated Capacity (grains)	Service Flow Rate		Pipe Size (in)	Resin Volume (ft <sup>3</sup> ) Per Tank	System Dimensions* (W X D X H inches)	Brine Tank Salt Capacity (lbs)	Ship Wt (lbs)
				Continuous @ 15 PSI DP (gpm)	Intermittent @ 25 PSI DP (gpm)					
CES-2900M-136	EV9984-22	Single	136,000	47	60	2	4	46x28x79	750	360
CES-2900M-171	EV9984-23	Single	171,000	53	69	2	5	49x28x82	750	460
CES-2900M-239	EV9984-24	Single	239,000	57	74	2	7	57x34x82	1,200	630
CES-2900M-341	EV9984-25	Single	341,000	62	80	2	10	61x34x89	1,200	920
CES-2900M-512	EV9984-26	Single	512,000	73	94	2	15	66x34x97	1,500	1,420
CES-2900E-136-DA	EV9984-32	Twin	136,000	47	60	2	4	64x28x79	750	460
CES-2900E-171-DA	EV9984-33	Twin	171,000	53	69	2	5	70x28x82	750	870
CES-2900E-239-DA	EV9984-34	Twin	239,000	57	74	2	7	81x34x82	1,200	1,200
CES-2900E-341-DA	EV9984-35	Twin	341,000	62	80	2	10	87x34x89	1,200	1,740
CES-2900E-512-DA	EV9984-36	Twin	512,000	73	94	2	15	99x34x97	1,500	2,750

\*When determining system space requirements, refer to spec sheet for physical arrangement. Installations requiring re-arrangement of tanks, or separation of tanks, may need additional clearance.

Flow rates up to 145 GPM.

**CES 2900DP Series  
Duplex Parallel Twin Tank Water Conditioner**

- 2" porting
- Duplex Parallel twin tank configuration for continuous soft water supply and reduced salt usage
- Hardness removal of 136,000 to 512,000 grains per tank
- Flow rates of up to 145 gallons per minute continuous
- Meter initiated regeneration
- Easily adjustable 5-cycle control

**Designed for operations with low to medium volume soft water usage:**

- Whole stores
- C-store vehicle wash
- Hotel/Motel

Flow rates up to 165 GPM.



**CES 3900 Series  
Single Tank Water Conditioner**

- 3" porting
- Hardness removal of 750,000 grains
- Flow rates of up to 165 gallons per minute continuous
- Meter initiated regeneration
- Easily adjustable 5-cycle control

**Designed for operations with high volume soft water usage:**

- Retail superstores
- Whole facility applications

The salt in the brine tank should not fall below 30%. After the water softener has been in service for a period of time, a salt usage pattern should develop, and a schedule for replenishment of salt can be determined. When adding salt, the brine tank can be filled completely.

Model	Part Number	Tank	Rated Capacity (grains)	Service Flow Rate		Pipe Size (in)	Resin Volume (ft <sup>3</sup> ) Per Tank	System Dimensions* (W X D X H inches)	Brine Tank Salt Capacity (lbs)	Ship Wt (lbs)
				Continuous @ 15 PSI DP (gpm)	Intermittent @ 25 PSI DP (gpm)					
CES-2900E-136-DP	EV9984-42	Twin	136,000	94	121	2	4	64x28x79	750	460
CES-2900E-171-DP	EV9984-43	Twin	171,000	106	137	2	5	70x28x82	750	880
CES-2900E-239-DP	EV9984-44	Twin	239,000	114	148	2	7	81x34x82	1,200	1,210
CES-2900E-341-DP	EV9984-45	Twin	341,000	123	159	2	10	87x34x89	1,200	1,750
CES-2900E-512-DP	EV9984-46	Twin	512,000	145	188	2	15	99x34x97	1,500	2,750
CES-3900E-341	EV9980-32	Single	341,000	74	96	3	10	61x34x93	1,200	960
CES-3900E-512	EV9980-33	Single	512,000	100	129	3	15	66x34x97	1,500	1,470
CES-3900E-682	EV9980-34	Single	682,000	105	136	3	20	82x43x99	2,200	2,010
CES-3900E-853	EV9980-35	Single	853,000	165	213	3	25	87x43x89	2,600	2,970

\*When determining system space requirements, refer to spec sheet for physical arrangement. Installations requiring re-arrangement of tanks, or separation of tanks, may need additional clearance.

**Model Selection Guidelines:**

1. Test water to determine hardness and select appropriate hardness range.
2. Determine gallons per day usage and select appropriate row.
3. Determine pipe size and select models shown in blue, for recommended choices.
4. Narrow choices by determining need for single or twin tank system.

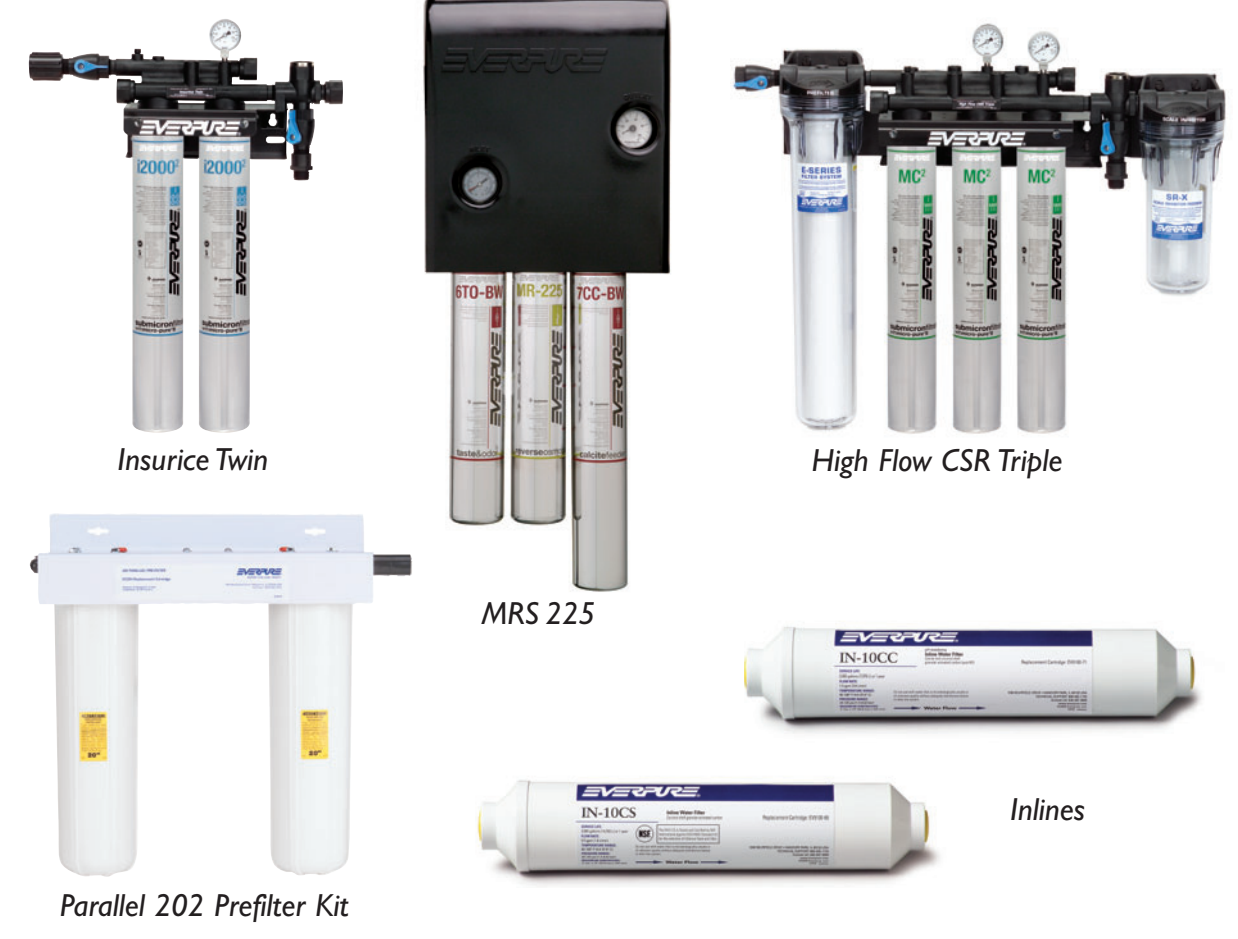
**Single:**

- █ Recommended choice: Time between regeneration is 2 days to 3.5 days
- █ Acceptable choice: Time between regeneration is 1.8 days to 4 days
- █ Model not recommended

**Twin:**

- █ Recommended choice: Time between regeneration is 1 day to 1.5 days
- █ Acceptable choice: Time between regeneration is 7 days to 2 days
- █ Model not recommended

Hardness Range	1" PIPE SIZE MODELS		1-1/2" PIPE SIZE MODELS		2" PIPE SIZE MODELS		3" PIPE SIZE MODELS					
	WS	2750M - Single	9000M - Twin	2850M - Single	9500M - Twin	2900M - Single	2900M - Twin	3900 - Single	3900 - Twin			
26-30	10000	34	81	101	63	102	136	171	239	341	512	853
	8000	27	75	95	59	101	135	168	229	341	512	853
	6000	23	62	82	51	87	102	136	171	239	341	512
	4000	17	47	67	41	61	81	101	121	141	161	181
21-25	10000	48	125	155	100	165	205	180	245	285	345	405
	8000	42	118	148	94	160	200	175	240	280	340	400
	6000	36	110	140	88	152	192	167	232	272	332	392
	4000	30	102	132	80	144	184	159	224	264	324	384
16-20	10000	51	132	162	103	178	218	183	248	288	348	408
	8000	45	127	157	97	163	203	178	243	283	343	403
	6000	39	119	149	91	155	195	170	235	275	335	395
	4000	33	111	141	85	147	187	162	227	267	327	387
11-15	10000	52	133	163	104	179	219	184	249	289	349	409
	8000	46	128	158	98	164	204	179	244	284	344	404
	6000	40	120	150	92	156	196	181	246	286	346	406
	4000	34	112	142	86	148	188	183	248	288	348	408
7-10	10000	54	135	165	106	181	221	186	251	291	351	411
	8000	48	130	160	100	176	216	181	246	286	346	406
	6000	42	122	152	94	170	210	186	251	291	351	411
	4000	36	114	144	88	162	202	187	247	287	347	407



Whether you need softening, filtration or reverse osmosis, we have a solution. After all, our entire existence revolves around providing the best, most consistent water anywhere. That's why so many operations around the world depend on us to solve their water problems.

We don't just offer product, we manage water. Our Everpure Total Water Management™ Program can analyze your water, identify your needs, provide the perfect solution for your operation, and support it with outstanding customer and technical support.

Contact us at 1-800-323-7873, or visit us at [www.everpure.com](http://www.everpure.com).

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