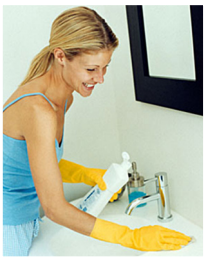
MARLO INCORPORATED®

Quality Products for Quality Water

Marlo CMP Series Water Softeners

Features

- **Dependable Fully Automatic Controls.** State of the art control design assures top performance and ease of use in one of the industry's most reliable water conditioners.
- **Fewer Parts Than Comparable Valves.** Fewer parts and minimum number of sealing members ensures reliable, trouble-free performance.
- **Economy Salt Saving Brine Control.** Precision brining cycle increases salt efficiency and assures minimum water usage during regeneration.
- **Automatic Bypass During Regeneration.** During regeneration, bypass water is automatically available.
- **Outstanding Warranty and Product Assurance.** Product materials and workmanship are protected with a written warranty that you can depend on. You will know you have complete product protection even though you may never need it.



For the Laundry

Clothing looks cleaner with reduced fading and fabric wear. Clothing life can be extended by as much as 15%. Soap and detergent consumption can be substantially reduced.

For the Kitchen

Dishes and glasses look cleaner and brighter.

For the Family

Hard water can cause dryness. Skin and hair washed in soft water look and feel better.

For the Home

Water using appliances last longer. Softened water maintains energy efficiency.

Easily Eliminate Hard Water with Marlo CMP Water Softeners

Hard water can be a lot more problematic than you think. It can cause buildup of mineral scale inside your appliances and plumbing. It can block your water supply and cause appliances like dishwashers and washing machines to fail. Hard water stains kitchen and bathroom fixtures and also reduces the effectiveness of soaps and detergents, meaning that you and your clothing don't get as clean. End the troubles of hard water with a Marlo water conditioner. Our CMP series water softener removes hard minerals from your water leaving it soft, clean and better tasting. Soft water saves you money. Enjoy the benefits of a Marlo water softener. Call and order yours today!

Take a look at the advantages of using a Marlo water softener:

- Soft water improves the efficiency of water based heating systems and hot water systems and can extend the life of your water heater by 50%.
- Use only half the soap in the laundry, bathroom, and kitchen as you normally would with hard water.
- Save money on hair conditioners and shaving cream as you use up to 25% less.
- Extend the lives of dishwashers, washing machines and other water-using appliances by 30%.
- Laundered clothes will be cleaner and last longer.

In the kitchen The Marlo CMP will

- Give you spot-free glassware, dishes and silverware.
- Eliminate hard water stains on sinks and fixtures.
- Extend the life of your appliances and plumbing.

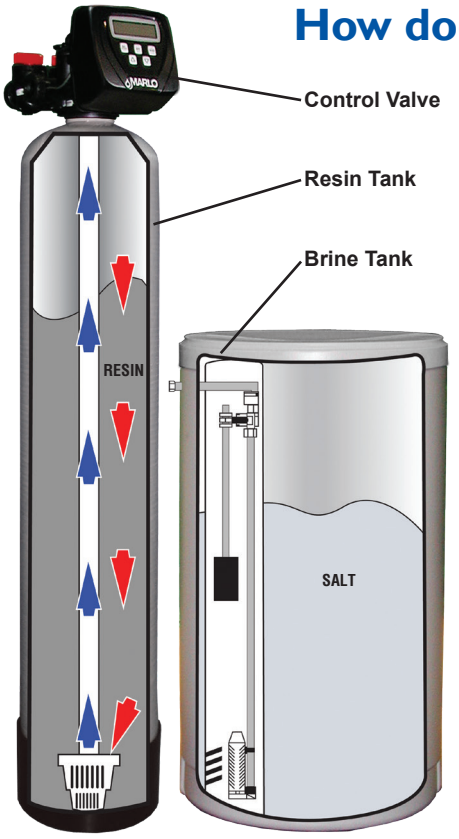
In the bathroom

- Less soap-scum on tubs, tile & sinks.
- Stain-free fixtures.
- Shiny healthier looking hair & softer skin.
- Reduce the amount of soap you use.

In the laundry

- Whites and colors will be more vibrant.
- Reduce laundry detergent usage.
- Extend the life of your washing machine.

How does a Marlo Water Softener Work?



1. The untreated water enters the Control Valve where it is directed into the top of the Resin Tank and passes downward through a bed of resin. The resin will react with Calcium and Magnesium, the hardness minerals, by equally exchanging them for Sodium. When the water reaches the bottom of the tank, it is distributed up through a tube in the center of the tank into the Control Valve and through the outlet port as softened water.
2. When the resin is saturated with mineral (hard water) it must be regenerated. After a backwash step to clean the resin bed, a brine solution is flushed through the resin tank, bathing the resin beads with Sodium which replace the accumulated Calcium and Magnesium (hardness).
3. After brine is drawn into the resin tank, a rinse of just water passes through the bed rinsing the brine off. When the rinse cycles are finished, the resin cleaning process is complete and the bed is re-charged.
4. The Marlo Control Valve will track your water usage and automatically perform the above processes.

Metro HEATING & COOLING
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CMP SERIES

Automatic Water Conditioners

Specifications

Model Number	Units	CMP-22-K	CMP-30-K	CMP-40-K	CMP-45-K	CMP-60-K	CMP-22-KC	CMP-30-KC
Exchange Capacity— Kilograins	MAX MID MIN	22,836 19,509 14,514	30,448 26,012 19,352	38,060 32,515 24,190	45,672 39,018 29,028	60,896 52,024 38,704	22,836 19,509 14,514	30,448 26,012 19,352
Salt per Regeneration Lbs./Regen	MAX MID MIN	11.25 8.00 4.00	15.00 10.00 5.00	18.75 13.00 6.00	22.50 15.00 8.00	30.00 20.00 10.00	11.25 8.00 4.00	15.00 10.00 5.00
Max. Service Flow (1)	GPM	14.00	15.00	16.00	17.00	20.00	16.00	15.00
Pipe Size	IN.	1"	1"	1"	1"	1"	1"	1"
In–Out Drain	IN.	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Operating Pressure Max.	PSI	125	125	125	125	125	120	125
Operating Temperature Maximum	DEG F	110	110	110	110	110	110	110
Mineral Tank Size (Dia.×Ht.) (2)	IN.	8×44	9×48	10×47	10×54	12×52	8×35	10×35
Brine Tank (Dia.×Ht.) (3)	IN.	18×33	18×33	18×33	18×33	18×40	—	—
Salt Storage	LBS	375	375	375	375	450	250	250
Resin Volume	CU. FT.	0.75	1.00	1.25	1.50	2.00	0.75	1.00
Electrical (Voltage, Cycle)	120 Volts 60 Hz							
Shipping Weight	LBS	72	86	105	119	137	77	91
Floor Space	IN.	27×18	28×18	28×18	29×16	31×18	13.5×22.5	13.5×22.5
Overall Height	IN.	52	56	56	62	60	42	42
Max Flow to Drain During Regeneration (4)	GPM	1.7	2.2	2.2	2.7	3.2	1.7	2.7

NOTE:
(1) Pressure drop at 15 psi.
(2) Pressure vessels are seamless and made of reinforced fiberglass, pressure-tested at 300 psi.
(3) Brine tanks are fabricated of seamless, rigid, tough, high-impact, non-toxic polyethylene.
(4) 50 psi inlet pressure.

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Common Questions About Water Softening

What is hard water?

Hard water is the most common problem found in the average home. Hard water is typically defined as water having more than 1 GPG (grains per gallon) of dissolved minerals in it, generally consisting of calcium, magnesium carbonate, and/or manganese. The amount of hardness in water is usually measured in either PPM (parts per million) or GPG (grains per gallon).

Why soften my water?

Soft water greatly reduces the scaling of pipes, faucets, and bath fixtures, and reduces spotting of glasses, dishes and flatware. Soft water also helps detergent clean your clothes better, while making your clothes last longer too!

You can reduce your laundry detergent, dishwashing soap, hand soap and shampoo to half what you would normally use, not to mention soft water is much more pleasant to wash with, leaving less soap scum on you, and your tub/shower.

Why should hard water concern me?

For instance, you use only 1/2 as much soap cleaning with soft water because hard water and soap combine to form "soap scum" that can't be rinsed off, forming a bathtub ring on all surfaces and drys leaving unsightly spots on your dishes. When hard water is heated, the hardness minerals are re-crystallized to form hardness scale. This scale can plug your pipes and hot water heater, causing premature failure, necessitating costly replacement.

Soap scum remains on your skin even after rinsing, clogging the pores of your skin and coating every hair on your body. This crud can serve as a home for bacteria, causing diaper rash, minor skin irritation and skin that continually itches. For many industrial uses, the hardness minerals interfere with the process, causing inferior product.

How much sodium is added to the water by the softener?

That depends on the hardness of the water entering the softener. Below is a simple chart which shows the additional amount of sodium you would consume by drinking one quart (32oz) of softened water.

Hardness in Grains per Gallon	Sodium in Milligrams per Quart
1.0	7.5
5.0	37.5
10.0	75.0
20.0	150.0
40.0	300.0

To make a more normal comparison using everyday foods:

Item	Sodium in Milligrams
One slice of regular white bread	161
3/4 cup of canned baked beans	1130
1 tablespoon of catsup	204
1 medium frankfurter	610
1 cup of whole milk	127

Do I have to use salt in my softener?

No! Most stores that sell softener salt also sell a water softener salt substitute called potassium chloride. The potassium chloride for softeners is just as effective as regular softener salt but adds potassium instead of sodium.

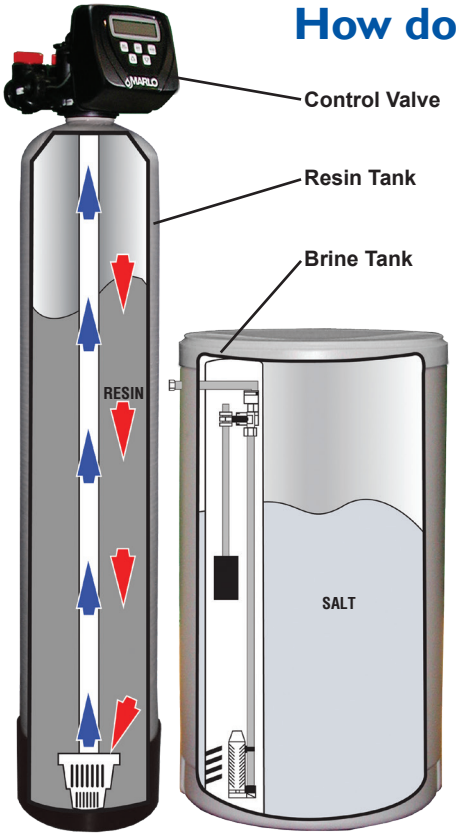
The cost of potassium chloride is a little more than regular softener salt but well worth the small increase if you have concerns about residual sodium in your water. Call and check the availability of potassium chloride and the difference in price, compared to softener salt, in your area.

I have a water softener and now my water feels slimy!

When the hardness minerals are removed, soap no longer forms a soap curd, or "bathtub ring" on your skin, plugging your pores, clinging to every strand of hair. You are now truly clean. That slick, slimy feeling you feel is your natural body oils without the soap scum.

Classification	Hardness Range	
Soft	Below 17 mg/litre	(0-1 grains per U.S. gallon)
Slightly hard	17.1 – 60 mg/litre	(1-3.5 gpg)
Moderately hard	61 – 120 mg/litre	(3.5 – 7.0 gpg)
Hard	121 – 180 mg/litre	(7.0 – 10.5 gpg)
Very hard	Over 180 mg/litre	(10.5 gpg and over)

How does a Marlo Water Softener Work?



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