

Commercial Softeners Fiberglass Mineral Tanks Twin Alternating 30 to 300 KG LWT- 9000/9500 Series

The low cost, high performance solution for light commercial applications that require twin-tank conditioning capabilities

- Top mounted Fleck Control System. 1" (9000) or 1 ½" (9500) valves available. Alternating controls, one unit on-line and one unit in stand-by or regeneration. Long-life construction featuring brass valve body. Total flexibility in meter and timer setting. Conditioned water used for regeneration.
- Rugged non-corrosive fiberglass reinforced mineral tanks from 10" to 24" diameter.
- High quality blow molded polyethylene brine tanks.
- Options are available to adapt these softeners to your specific requirements.



GENERAL INFORMATION

Hardness in Water

It is the presence of metal salts which causes water to be hard, the degree of hardness being directly proportional to the concentration of the metal salts. Calcium and magnesium may be present in one or more of several salt forms. Hard water consumes soap and forms objectionable, insoluble soap scum and curds, affecting washing and cleansing operations in the home and throughout industry. Hard water salts form scale in pipe lines, boilers, heat exchangers, hot water heaters, cooling towers and other water-using equipment, wherever water is heated or heat exchange takes place. Water supplies containing high amounts of hardness scale pipes and water mains when no heating was involved.

Water hardness is determined analytically by using a standard soap solution, adding the soap to a definite quantity of water until a stable suds has been formed: or water is titrated with a versenate chelating agent, using a dye as an indicator. Results are reported as calcium and/or magnesium or total hardness in parts per million (ppm) or milligrams per liter (mg/L) as calcium carbonate (CaCO₃) equivalents. Sometimes water hardness is given in grains per gallons (gpg) of hardness as calcium carbonate. One grain per U.S. gallon is equal to 17.1 parts per million (ppm) or 17.1 milligrams per liter (mg/L).

Hardness in water is sometimes calculated in pounds of scale forming matter per thousand gallons of water used or consumed. To determine this value we apply the following calculations:

$$\frac{\text{ppm hardness}}{120} = \text{Lbs./1000 gals. scale - forming matter}$$

Definition of Softening

When the name hardness has been given to water containing calcium and magnesium, and we speak of hard water to denote the presence of these substances, the absence of calcium and magnesium would denote soft water. Processes developed for the removal of unwanted hardness are termed softening.

There are two well established and extensively used water softening systems. They derive their names from the chemical processes used to accomplish the hardness reduction or removal. The first and oldest of these systems is termed lime-soda softening. The second is termed ion exchange softening.

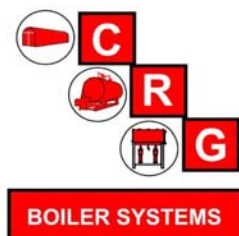
Advantages of Soft Water

The advantages of soft water ensue from any water use which is adversely affected by the presence of the hardness such as scale formation in vessels, containers and equipment used for heating water, the consumption of chemicals, the formation of deposits or curds, the precipitates formed by interaction of hard water with many diverse chemicals used in industrial processes, and even the effects of calcium and magnesium salts on other water conditioning products, such as deionizers.

**Commercial Softeners
Fiberglass Mineral Tanks
Twin Alternating
30 to 300 KG
LWT- 9000/9500 Series**

Model No.	Exchange Capacity		Quantity of Resin	Service Flow Rates		Mineral Tank Size	BFW Rate	Brine Maker Data		Shipping Weight
	Maximum	Minimum		Normal	Peak			Salt	Size	
Automatic	grains	grains	cu.ft. *	GPM	GPM	inches	GPM	Lbs.	Inches	Lbs.
LWT 9000-30	30,000	20,000	2	16	21	10x40	2.4	425	21x36	200
LWT 9000-45	45,000	30,000	3	14	19	10x54	2.4	425	21x36	260
LWT 9000-60	60,000	40,000	4	16	21	12x52	3.5	425	21x36	310
LWT 9000-90	90,000	60,000	6	17	22	14x65	5	425	21x36	530
LWT 9000-120	120,000	80,000	8	17	24	16x65	7	775	24x40	700
LWT 9500-120	120,000	80,000	8	29	40	16x65	7	775	24x40	750
LWT 9500-150	150,000	100,000	10	37	48	21x54	12	650	24x40	1100
LWT 9500-210	210,000	140,000	14	34	46	21x69	12	875	24x54	1400
LWT 9500-300	300,000	200,000	20	35	47	34x72	15	850	24x54	1800

* Total for two Tanks



C.R.G. Electric, Inc /CRG Boiler Systems
PO Box 69008 Odessa, Tx 79769
Ph. (432) 381-2493 Fax. (432) 381-2724
www.crgboilers.com