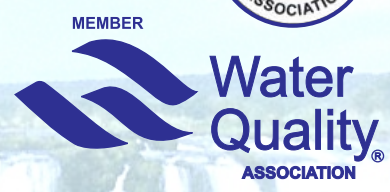


# Convert Your Hard Water into **SOFT WATER**



**An ISO 9001 : 2008 Certified**

## **A FULLY AUTOMATIC WATER SOFTENER**



**Best Solution for Your Home and Office**

**Mfrs: RO UF Water Purifier, DM Plant, Online UPS, Sinewave UPS, Solar UPS, Servo Stabilizer.**



**COSMIC MICRO SYSTEMS PRIVATE LIMITED**  
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## ABOUT WATER SOFTENING :

Hard Water contains dissolved Minerals in the form of Calcium (Ca), Magnesium (Mg), and Iron (Fe). Removal of these minerals is accomplished by softening the water through an ion exchange process using a water softener. As the water flows through the mineral tank of the water softener, the dissolved minerals become attached to the resin, creating Softwater . Over a period of time the resin in the water softener will become exhausted, and the water softener will regenerate using a brine solution produced from the salt in the brine tank.

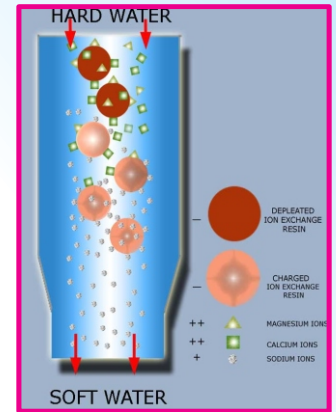


## HOW DOES A WATER SOFTENER WORK?

### A TYPICAL WATER SOFTENER HAS FOUR MAJOR ITEMS :

#### Resin tank ★ Resin ★ Automatic Multiport Valve ★ Brine or Salt Tank

Hard Water Flows over resin in the resin tank. Resin is in the form of tiny beads that have a special chemical property. At low concentration of sodium in typical hard water, the resin beads absorb (Combine with them) the hardness of water and replace it with an equivalent amount of sodium in water. As hardness is removed the water becomes “Soft”. The resin has a fixed capacity of the amount of hardness it can remove. Once this happens, the resin can no longer remove the water hardness and the resin is called “Saturated” or exhausted.



Fortunately, the same resin when exposed to high sodium chloride (common salt) concentration reverses the process and absorbs the sodium and releases the hardness. This property is utilized in regenerating the exhausted resin. This is done by temporarily stopping the softening process and exposing the resin to high salt solution from the brine tank. The entire process is controlled by the Automatic controller valve, calculated amount of water that can be softened before regeneration and after regeneration the controller rinses the resin to remove all silt not absorbed by the resin. The entire cycle lasts less than 1 hour. The softening process adds a very small amount of sodium in the water which comes from the exchange process. It is not directly added from the brine tank. For example, water with 10 grain hardness will have a sodium addition of 80 ppm in the water after softening.



## SOFT WATER MAKES A DIFFERENCE YOU CAN FEEL AND SEE

**BATHROOM :** Your soap and shampoo will lather better. Your hair and skin will feel soft and clean. There will be no soap scum or mineral deposits on your sinks, showers, tubs and toilets.

**KITCHEN :** Drinking water system will ensure portable water for your family. Softener will clean up dishes more easily, and will be spot free. Your hands will feel soft and look better.

**WASHING MACHINE :** Clothes will be much soft, clean, bright and they will last longer. Using soft water and pure soap products increases the life of clothes, towels and linens up to 33%.

**WATER HEATERS :** Heating process will save up to 30% of energy due to Hardness and they will last longer.

## ADVANTAGES IN USING A COSMIC WATER SOFTENER :

Fully Automatic Function \* User Friendly Display \* Saves Water and Salt \* Higher Quality Softwater \* Prevents Hard Water Scale \* Prevents staining on bathroom & kitchen Fixtures as well as dishes, dishwasher, Washing Machine and clothes \* Significantly reduces soap and cleaning product consumption \* Provides Excellent Grooming & Cosmetic Benefits \* Reduces Water Heating Costs \* Prolongs the life of Water Heaters, Icemakers, Dishwashers, Coffeemakers and Plumbing Fixtures \* Can be used as water level controller



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