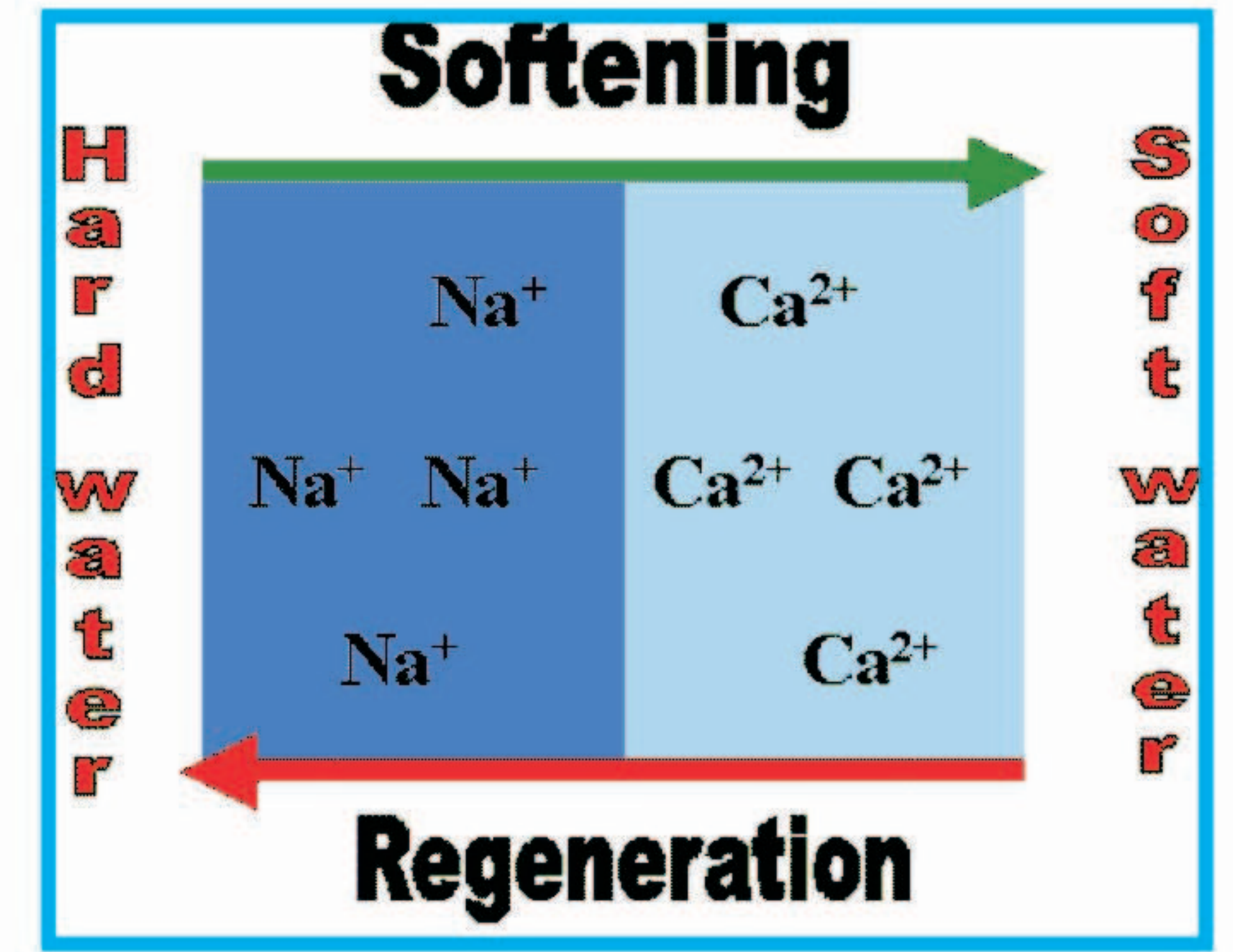


The Process

The heart of a water softener is a mineral tank. It's filled with small polystyrene beads, also known as resin or zeolite. The beads carry a negative charge. Calcium and magnesium in water both carry positive charges. This means that these minerals will cling to the beads as the hard water passes through the mineral tank. Sodium ions also have positive charges, albeit not as strong as the charge on the calcium and magnesium. When a very strong brine solution is flushed through a tank that has beads already saturated with calcium and magnesium, the sheer volume of the sodium ions is enough to drive the calcium and magnesium ions off the beads. Water softeners have a separate brine tank that uses common salt to create this brine solution.



In normal operation, hard water moves into the mineral tank and the calcium and magnesium ions move to the beads, replacing sodium ions. The sodium ions go into the water. Once the beads are saturated with calcium and magnesium, the unit enters a 3-phase regenerating cycle. First, the backwash phase reverses water flow to flush dirt out of the tank. In the recharge phase, the concentrated sodium-rich salt solution is carried from the brine tank through the mineral tank. The sodium collects on the beads, replacing the calcium and magnesium, which go down the drain. Once this phase is over, the mineral tank is flushed of excess brine and the brine tank is refilled.

APPLICATION

- Boiler Feed
- Cooling Tower Make-Up.
- Air Conditioning Plant.
- Textile Processing.
- Beverage Production.
- Hospitals, Hotels, Laundries, etc.



TREATED WATER QUALITY

Total hardness: Less than 5 ppm (Commercial Zero)

Model	Flow Rate (Max)	Working Pressure (Min.)	Working Pressure (Max.)	Vessel Size (Inch.)	Resin Qty. (litres)	OBR *	Salt reqd for reg.
RWTS05	500	2.0	3.5	8X44	25	7 M ³	4 kg.
RWTS10	1000	2.0	3.5	10x54	55	15 M ³	8 kg.
RWTS20	2000	2.0	3.5	13x54	80	22 M ³	12 kg.
RWTS30	3000	2.0	3.5	14x65	150	41 M ³	22 kg.
RWTS50	5000	2.0	3.5	18x65	200	55 M ³	30 kg.
RWTS100	10000	2.0	3.5	21x62	250	68 M ³	37 kg.

*OBR BASED ON FEED HARDNESS 200 ppm



RAINDROPS WATER TECHNOLOGIES

144, 145, Pushpak Indl. Estate, Neeka Tube Compound, Phase-1,
G.I.D.C., Vatva, Ahmedabad, Gujarat.

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