

## Powerful.

## Efficient.

## Zero downtime.





Non-stop Soft Water. 24x7 never runs out even with extra guests

On-Demand Metered System regeneration based on actual water usage

Automatic & Fully Programmable settings are flexible & saved during a power outage

Cleans itself... With Soft Water... Always Fresh soft water regeneration and fresh rinse just before tank change







www.alpinewaterconditioning.com

This twin tank softener switches seamlessly to the second tank, to keep soft water flowing while the first tank regenerates, with no down time. This feature allows the softener to clean itself with soft water instead of raw water. Additionally, each tank can run to 100% capacity making it more efficient in terms of salt and water usage. Twin tank water softeners last longer, are more efficient.

**By comparison**, any single tank softener has "down time" when it regenerates. Your household, and the softener itself only have access to hard water, during the regeneration time. A single tank softener must regenerate when only 80% of its capacity has been used which requires more salt and water.

**How it all works.** Inside the softening tank, water flows through tiny beads called resin. The resin beads attract the hardness in the water and hold it to themselves allowing only softened water to pass on through the softener. When the beads have reached their capacity and can hold no more, the softener switches into a cleaning mode called a regeneration cycle. During the regeneration cycle, salt water from the brine tank is brought into the softener and flushed over the resin beads. The salt water has three times the strength of the beads so it strips them clean and sends this dirty water down the drain. After several rinses the softener tank is now ready for use again.

How the twin tank softener regenerates. Lets say the softener has just reached its softening capacity and is now ready to regenerate. First the softener switches all water softening over to the second tank which has been refreshed and is standing by ready for use. You will continue to receive clean, soft water at all points in your home. Next the softener starts its regeneration cycle. Salt water is brought in from the brine tank and flushed over the beads using clean soft water. This clean soft water is now flowing through the softener's internal control mechanism, including its moving parts and seals helping them stay clean for smooth operation. Following several rinses with soft water, the softener is now clean and ready for softening.

## How the single tank softener regenerates.

**1. Raw water regeneration.** Starting again with the softener having just reached it capacity and being now ready to regenerate. First the softener goes "off-line" meaning all water to your home is now completely bypassing the softener and is not being softened. If any dish washing or laundry washing is being done, anyone is showering, a toilet is flushed or tap water is drawn it will all be raw water.

Next, the softener starts its regeneration cycle. Salt water is brought in from the brine tank and flushed over the beads using raw, unsoftened water. This raw, unsoftened water is now flowing through the softener's internal control mechanisms exposing its moving parts and seals to mineral laden water. Following several rinses of raw, unsoftened water the softener tank is now ready for use. Can we really say the softener is clean?

2. 20% capacity gets wasted. As was mentioned, while any single tank softener is regenerating it is also "off-line" allowing raw unsoftened water to reach your home. To mitigate this undesirable situation, Softeners are often programed to only regenerate during the night when water is the lease likely to be needed in the home. (This is of no consolation for those of us that take middle-of-the-night bathroom breaks or even showers for those who travel or need to get to work during the night. Yep, they are going to get raw, unsoftened water and if they are using hot water, then the hot water heater is being replenished with raw unsoftened water too!) The softener will regenerate any night on which the capacity drops below 20%. If the softener does not have enough capacity to provide soft water through the entire next day, it must go ahead and regenerate that night. Thats right, even if it would have enough softening capacity to make it another 1/2 day it has to regenerate now, during the night, or it will run out of softening capacity during the next day. This remaining softening capacity is completely wasted. Just exactly how much can get wasted? If a particular softener has an 800 gallon softening capacity, 20% could mean wasting nearly 160 gallons of capacity! Wasted capacity means the regeneration cycle comes more often which correlates into extra salt and water usage too!

**3. You may even run out of soft water.** As we just saw, a single tank softener regenerates when it still has 20% or less capacity remaining. But what if there are extra guests in the home or extra washing is done the next day? Your water softener doesn't know this and sticks with the 20% capacity it has been programmed for. You could completely run out of soft water on a day like this and expose all water users to raw, unsoftened water.

**Upgrading to a twin tank softener** should be considered if any of the following apply:

- you have four or more people in your home
- you are concerned about the extra salt and water usage
- · You occasionally have extra guests in your home
- · You want a better, longer lasting water softener