

# Water 101 | U-Line Nugget Ice Machines

Before enjoying nugget ice, it's important to understand water quality. Ensure your home is equipped with the proper water requirements.

## Incoming water requirements

TDS (Total Dissolved Solids) between 5 ppm (mg/l) and 400 ppm (mg/l) and water hardness less than 200 mg/l (ppm), 12 (gpg) grains per gallon

## What is TDS?

- TDS (or Total Dissolved Solids) are organic and inorganic substances dissolved in the water, and are generally not visible
- TDS can include minerals, salts, metals, plant material, phosphates, nitrates, potassium, calcium, & chloride
- The lower the TDS number, the more pure the water is
- TDS can be measured using a meter that costs about \$10

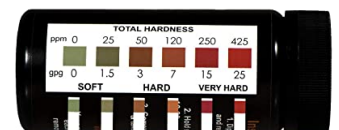


## How is TDS reduced?

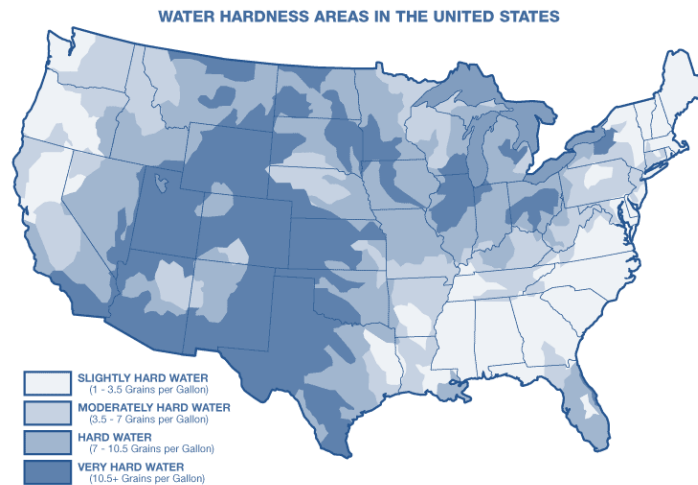
- Reverse Osmosis System - whole home or partial
  - Physically removes contaminants and dissolved minerals in water by forcing them through a filter
  - Benefits of a reverse osmosis system:
    - Tasteless water
    - No chemicals
    - Soft water
    - Removes odors and unusual colors
- Other filtration systems, recommended by a local water professional

## What is hard water?

- The amount of dissolved calcium and magnesium in the water
- Water hardness can be measured using strips that cost about \$10



- Broad overview maps are available, but water quality can vary based on exact location - be sure to check your water source



---

### How is hard water reduced?

- Reverse Osmosis System - preferred method
- Traditional water softeners using ionization that require salt
  - Calcium and magnesium are replaced with less destructive sodium
- Other filtration systems, recommended by a local water professional
- Soft water results in longer lasting appliances, brighter laundry, cleaner dishes, fewer clogs, and requires less detergents

---

### TDS and hard water are related, but not the same

- Water hardness is a component of TDS
- Water softened with traditional ionization (salt) does not reduce TDS

---

### Recommendations

- Test your water for TDS and water hardness, and treat as necessary
- Avoid using water softened with a sodium based ion exchanged system with your Nugget Ice Machine as this changes the composition of the overall TDS, but does not lower it, and sodium can interfere with the freezing process resulting in insufficient ice production and/or softer ice than desired
- Higher levels of water hardness will require more frequent cleanings
- Regardless of water quality, periodic cleaning removes scale build up inside the machine resulting in better performance and a longer product life
- Cleanings and service related to lack of cleaning is not covered by the warranty