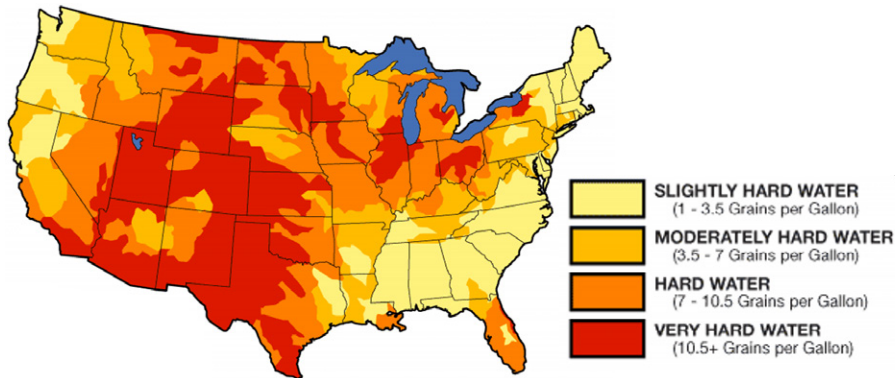


## Water Hardness Areas in the United States



### Water Hardness Table of Classifications

grains per gallon (gpg)	milligrams per liter (mg/L) parts per million (ppm)	U.S. Geological Survey Classification	Water Quality Association Classification
< 1.0	< 17.1	soft	soft
1 to 3.5	17.1 to 60	soft	slightly hard
<b>3.5 to 7.0 (ideal)</b>	<b>60 - 120</b>	<b>moderately hard</b>	<b>moderately hard</b>
7.0 to 10.5	120 - 180	hard	hard
10.5 +	180 and over	very hard	very hard

### Suggested Range for Water Vapor Fireplaces

**3.5 to 8.5 Grains Per Gallon, Ideal is 7.0 (moderately hard)**

- Water that is too hard will produce scaling, shorten transducer life, and require more frequent cleaning.
- Water that is too soft will have reduced flame effect.
- If water hardness needs to be adjusted, consult local water conditioning professional.

REVERSE OSMOSIS is NOT RECOMMENDED, it removes ALL minerals and vapor will be greatly diminished.

Hardness Test Kits  
available on Amazon



## CHECKLIST FOR BEST RESULTS: REMEMBER

- protect fireplace insert during construction / dust & debris that gets inside the equipment is a major problem.
- have water tested for water hardness or use a water hardness kit purchased on line.
  - water that is too hard will shorten life of equipment and could void warranty in extreme cases.
  - water without enough minerals (too soft) will greatly limit size and quality of flames.
- flames look best against a dark background.
- drafts from HVAC vents and entrance doors will diminish quality of flames.
- if light cast onto the ceiling of the room is an issue, design a hearth, hood, or light trap to contain the light.
- mist-makers have a life of 2,000 to 3,000 hours and should be cleaned with vinegar 2 to 3 times a year.
- water tanks should be flushed with vinegar and rinsed out with water at least once a year.
- regular cleaning will prolong the life of the fireplace, see recommended Preventive Maintenance Plan.

## DESIGN REVIEW

When you have your design schematic or working drawings, it's a good idea to get a review by a water vapor fireplace professional.

*...We are here to help!*

