

The Hard Facts About Hard Water

Hard water is a drain on your restaurant's energy and expenses.

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The average restaurant consumes 5,800 gallons of water daily — 50% of which is used in the kitchen, according to the Southwest Florida Water Management District. If not properly treated, hard water can drain a restaurant's bottom line — sapping revenue and, ultimately, profitability, by damaging the equipment and the restaurant's reputation. Softened water provides measurable benefits by extending a restaurant's investment in high-cost appliances, saving energy, lowering labor costs, protecting the environment and improving the customer experience.

THE CHALLENGES: FLUSH AWAY THE "HIDDEN" COSTS OF HARD WATER

The impact of hard water hits heavily on energy use and associated maintenance costs. This is a special concern for restaurants since they have large overhead costs and equipment that needs to not only perform, but to last its life expectancy. Hot water heaters, boilers, dishwashers, steamers, steam tables, coffee machines and any other hot water using equipment must be maintained to maximize profitability.

Energy Inefficiency

Hard water contains dissolved rock that accumulates on heating elements and the internal surfaces of boilers, causing a scale buildup and impairing efficiency. Scale buildup reduces the equipment's ability to heat surrounding water, causing it to consume more energy, thus raising utility costs. According to the American Society

of Plumbing Engineers (ASPE), one-sixteenth of an inch of scale can increase energy consumption by 11%. Similarly, the Water Quality Research Council (WQRC) claims that it costs 29% more to heat untreated water.

Equipment Replacement

The lifespan of hardness scaled equipment is shortened due to high failure rates and the need for expensive repairs or even a costly replacement. Periodic blow-downs are often used to salvage equipment by flushing impurities to the drain; and replacement water must be added to the boiler, causing a waste of water, energy and chemicals.

Environmental Concerns

Restaurants operating on hard water must use more chemicals and detergents to match the cleaning results achieved when using softened water. All restaurateurs try to cut costs, but it is simply illogical to think you are trimming expenses by maintaining hard water. For every grain of water hardness, detergent use increases 2% to 4% per 1,000 gallons of water used. Aside from increased detergent costs, hard water means that more wastewater and impurities are transported to the sewer and ultimately the environment. Restaurants that want to "go green" need to "get soft" with their water.

Unsatisfactory Customer Experience

The quality of a restaurant is observed even before the meal is set on the table. Patrons welcomed with the

IS IT TIME TO SWITCH TO SOFTER WATER?

To determine whether your restaurant requires a water softener, please check the items on the following list that best describe your business:

- Scale buildup on equipment
- High chemical and/or detergent costs
- High utility costs
- Stains on linen
- Spotting on flatware and glasses
- Frequent maintenance of water-using equipment

signs of hard water such as spotting on flatware and glasses, discolored table linens and stains on bathroom fixtures are left with a bad residual taste. This perception of poor ambiance leads to diminished repeat business and decreased revenues.

THE SOLUTION: HARD SAVINGS WITH SOFT WATER

For foodservice operators, problems associated with hard water can easily be minimized by using a water softener. Water softeners reduce the scale-forming or hardness ions — calcium and magnesium.

As a result, water softeners help prevent scale buildup and reduce overheating of stainless steel components in hot water heaters, boilers, dishwashers, steamers, steam tables,

WHY SOFTER IS BETTER

Taking steps to soften hard water has a positive impact on multiple facets of your restaurant business, including:

OPERATIONAL SAVINGS

- Reduced labor and maintenance costs; utility bills; and detergent/chemical expenses.
- Increased equipment life span and textile life.
- No scale buildup in dish machine, hot water heater and pipes.

ENHANCED CUSTOMER EXPERIENCE

- Spot-free tableware and brighter/whiter/softer linens and towels.
- Bright, easy-to-clean facility with spot-free floors, windows and fixtures.

coffee machines and any other hot water using equipment. Using soft water saves money on equipment replacement and service, electric and gas utilities, and detergent/chemical use. Restaurant operators can lower operating costs by up to 30% and reduce utility bills by as much as 30% simply by incorporating a soft water program.

Lower Heating Bills

For a typical restaurant that uses hard water, it costs \$810 per month to heat the water (based on \$27 per day to heat 2,900 gallons). Water softening can save as much as 30% in energy — a cost savings of \$243 per month, adding up to more than \$2,916 savings annually.

Less Detergent and Labor

Softened water also saves restaurants detergent and chemical costs. For example, restaurants can save up to 35% on detergent using a water softener. Additionally, labor costs can be reduced with 25% less downtime for maintenance repairs and by eliminating labor to rewash or wipe down service and glassware.

Going “Greener”

Some water softeners offer a brine reclaim system which recycles a portion of regeneration salt and water. This is an environmentally friendly

and cost-saving feature that helps restaurants save money by reclaiming, then re-using, some of the salt consumed during regeneration.

Repeat Business

Customers will notice soft water differences from the moment they step inside. With an overall cleaner looking facility, spot-free glasses and silverware, shinier dishes, bright white table linens and reduced stains on fixtures, they may want to keep coming back for the ambiance alone. Soft water maintains the high quality image and expectations patrons have of your establishment.

THE NEXT STEP: SIZE UP YOUR NEED FOR A WATER SOFTENING SYSTEM

To begin the transition to soft water, you need to start with a professional water analysis and site survey to determine your water hardness or other potential water problems. Restaurants are best served by working with a vendor whose local dealers know the water conditions specific to that region.


A qualified representative can collect and analyze a water sample to help you assess whether a soft water treatment system would be beneficial to your business. If you have an existing water softener, the technician can also do an inspection to ensure it is

working effectively. This professional can also conduct an audit of current water consuming equipment to determine operating conditions and energy consumption.

If a water softener is warranted, the qualified representative will recommend the best option to fit the unique needs to your restaurant business. While water treatment technologies are similar among manufacturers, restaurateurs should look for a partner who offers comprehensive service plans that include regular preventive maintenance, including filter change-outs and salt delivery programs.

CONCLUSION: PUMP PROFITS BACK INTO YOUR BUSINESS

Soft water means hard savings for your foodservice business. Reduced equipment replacement, maintenance, detergent usage and labor costs all add up to operational savings, a better customer experience and more repeat business — leading to increased revenue.

Many water softening systems and technologies are available to address your restaurant's requirements; always seek the consultation of a qualified, local water treatment specialist to ensure you're getting the best recommendation for your restaurant's specific needs. 

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