

You could give your people

Culligan Water

The ROI of Industrial Water Treatment



8

WAYS
BUSINESSES
BENEFIT

Industrial water treatment systems play a crucial role in facilities across a diverse set of sectors, including energy, healthcare, manufacturing, municipal, and wastewater treatment. These systems treat source water to bring it to operation-appropriate conditions, whether that means reducing mineral or microorganism content. If left untreated, the contaminants in the source water can cause equipment damage, reduce equipment performance, and negatively impact product quality—all consequences that translate to money loss.

Water treatment operations vary from simple to complex, depending on the initial state of the water and the intended application of the end product. Some of the most common industrial water treatment processes include:

- [Deionization](#)
- [Reverse Osmosis](#)
- [Filtration](#)
- [Ultraviolet disinfection](#)
- [Water softening](#) / [Dealkalization](#)

Regardless of the treatment process employed, industrial water treatment systems provide industrial facilities with several advantages.

This eBook highlights some of the key ways that businesses in multiple industries can benefit from investing in an industrial water treatment solution, including the following markets:

- Energy and Power
- Healthcare and Pharmaceuticals
- Industrial/Manufacturing
- Municipal Water Treatment/Wastewater Treatment
- Hospitality and Lodging
- Food and Beverage



8 Ways Businesses Benefit from Industrial Water Treatment

Ultimately, the advantages of investing in an industrial water treatment system boil down to one factor—ROI. Return on investment (ROI) refers to the ratio of the net profit or loss of an investment in relation to the amount of money spent on it. Investments with higher ROIs are seen as more favorable, while investments with lower ROIs are less favorable.

Water treatment systems allow businesses to potentially increase their ROIs by optimizing various aspects of operation. From lowering material usage and energy costs to increasing equipment performance and employee productivity, there are several ways that these systems improve a facility's ROI. Eight specific benefits are:

1 Lower Costs for High-Purity Water

Many industrial applications need high-purity water for their operations both to meet production specifications and industry standards. Deionization systems allow companies involved with such applications to produce high-purity water on-site.

With deionized water solutions, you're paying only for the high purity water without having to worry about the infrastructure, installation, and maintenance costs of self-serve models. The solution places tanks containing deionization resin on-site at the facility and, once spent, replaces them with fresh tanks for continuous operation. At some water treatment service providers, such as Culligan, spent tanks can also be regenerated at any Culligan Service Centers.



2 Superior Preventative Maintenance and Lower Operating Costs

When looking for a water treatment solutions provider, a comprehensive preventative maintenance plan is crucial. This quality means that your vendor owns and maintains the equipment, freeing up your facility personnel from having to repair and maintain the equipment and dispose of waste.

Look for an industrial water treatment provider that can offer the following preventative maintenance services:

- Site assessment to determine proper system sizing
- Free water testing and assessment
- Complete system setup, including installing, configuring, and/or programming
- System start-up, including preparing treatment compounds
- Post-installation system inspection
- Parts replacement
- Inspection of third-party systems

3 Lower Utility Usage

Water and wastewater plants typically consume 30–40% of the total energy expenditures in municipal systems. In the United States, they account for 2% of the national energy usage.

By removing minerals from process water, water treatment systems can reduce the effect of hard water on equipment and the amount of water and energy needed to produce comparable equipment performance.



4 Lower Labor Costs

Using the right water treatment equipment can save on labor costs. Look for an industrial water treatment provider that can deliver the following benefits to help lower costs:

- Customized design for optimal system performance
- Skid-mounting for less field labor and fewer installation expenses
- Remote monitoring services
- Off-site pre-piping and pre-testing services
- Advanced, hands-free control and operation (with the Culligan Smart Controller and Monitor)

5 Lower Material Costs

By softening water, water treatment systems can potentially reduce the amount of materials needed to achieve a comparable effect, thereby decreasing overall material costs. For example, in the hospitality and lodging industry, the employment of our water treatment solutions resulted in:

46% increase in efficiency of softeners, reducing the amount of salt, water, and electricity needed

50–60% reduction in detergent needed for cleaning applications (e.g., Four Seasons Laundry Engineer Gerald Gleckman boasted detergent and chemical cost savings of 30–35%)

6 Longer Equipment Lifespan and Lower Initial Costs

Water treatment systems can remove solids and minerals in the following water sources:

- Boiler feedwater
- Cooling tower water
- Discharge water or industrial wastewater
- Process water
- Pump water

Comprehensive water treatment systems remove materials from source water that can cause damage over time, resulting in reduced repair and replacement costs. This quality can significantly increase the service life of your water-using equipment. For example, **washing machines that use hard water have a 30% shorter service life than ones that use soft water.**

7 Higher Boiler Efficiency (Up to 20%)

Boilers that use hard water operate less efficiently and are more likely to breakdown. By using water treatment equipment, such as Culligan filtration systems, you can provide higher purity water to your process equipment, resulting in better performance and longer service lives.

8 Longer-Lasting Textiles (Up to 40%)

Hard water is hard on textiles. Linen sheets, towels, and other textiles cleaned with soft water last 40% longer than ones cleaned with hard water. Using water treatment systems to provide soft water to cleaning equipment facilitates the extension of the service life of textiles.

“Linen sheets, towels, and other textiles cleaned with soft water last 40% longer than ones cleaned with hard water.”

Additional Benefits of Industrial Water Treatment Systems

In addition to the above mentioned benefits, water treatment systems offer several other advantages for your business, including:

Balanced and Unbalanced Progressive Flow

Industrial water treatment solutions can be designed to employ smaller tanks and Progressive Flow technology to provide superior flow rates for enhanced treatment capabilities. Depending on the demand of the system, the technology brings tanks online or offline to provide appropriate water amounts for the operation. This quality is ideal for facilities where demand is inconsistent or with limited space.

Energy-efficient and affordable, these systems save on operating and investment costs.

Brine Reclaim

Brine Reclaim technology conserves resources by returning a portion of the brine to your brine tank. This green solution improves the efficiency of your water treatment system: when used with a Smart Controller, for example, Culligan's brine reclaim technology delivers a 25% reduction in salt usage.

Spot-Free Rinsing

When used in cleaning equipment, hard water can leave behind mineral spots on dishes, glassware, and other cleaned surfaces.

Using water softeners to remove these minerals in source material prior to its introduction into cleaning equipment facilitates more thorough cleaning operations.



Less Corrosion and Scaling

Alkali, such as hydroxide, carbonate, and bicarbonate, can turn corrosive when heated. By using water softeners and dealkalizers to remove these contaminants, you can extend equipment service life, minimize the production of hard water scaling, and reduce the cost of repair and replacement.

Better Tasting Food and Beverages

Many end users prefer the taste of filtered water over hard water. In the food service industry, offering filtered water can improve your restaurant or hotel's reputation and increase satisfaction of your customers.

Reynolds Culligan Industrial Water Treatment Solutions

Reynolds Culligan is an industry-leading commercial and industrial water treatment company. We're the only company in the Mid-Atlantic that offers single-source, comprehensive water treatment solutions. By partnering with us for their water treatment needs, customers benefit from our:

- Over 100 years of combined industry experience
- Competitive prices
- Long-term aftersales support

Our professional services include:

- Biological control and sanitizing
- Chemical treatment
- Engineering and system design
- Equipment rental, leasing, and sales
- Portable exchange deionization
- Preventative maintenance
- Resin and media analysis and re-bedding
- Salt delivery
- Service agreements
- Start-up and setup

To learn more about our water treatment solutions and how they can benefit your business,

[contact us today.](#)



About Us

Reynolds Culligan is the only industrial and commercial water treatment company in the Mid-Atlantic that provides a single-source, comprehensive water treatment technology platform for virtually any industry and application. This quality allows us to save your business valuable time and resources.

With our over 100 years of combined industry experience, competitive prices, and professional after-sale services, you can be confident that we provide exceptional products, service, and follow-up.

You could give your people

Culligan Water



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