

# Water Treatment For Beverage Production

High quality and reliable supply of water is critical to the beverage industry, both as an ingredient and to facilitate in-plant production processes like heating, cooling, and cleaning. The resulting wastewater from these processes must also be treated to comply with regulatory requirements for discharge and/or reuse.

Evoqua Water Technologies, a Xylem company, provides comprehensive water treatment solutions for the beverage production industry from ingredient-quality water to rinse water, and from utility water for boilers and cooling towers to high-strength wastewater treatment.

Our service network is backed by more than 100 branches across North America. Our certified technicians and applications experts can help you solve your water problems, maximize uptime, optimize operational efficiency, and minimize risk in critical applications by leveraging decades of industry experience and best-in-class technologies. We can also help you to minimize your environmental footprint and meet sustainability goals.

## SOLUTIONS FOR THE BEVERAGE INDUSTRY

Evoqua provides solutions and services for all water treatment regardless of beverage product or process in all of these categories:

- Beer
- Bottled water
- Dairy
- Fruit juice
- Soft drinks
- Wine & spirits



## INGREDIENT WATER

Beverage ingredient water must be treated to the quality specifications required for each specific product. Evoqua has a broad range of treatment technologies to assure that you can meet your quality and quantity requirements for each product.

### Intake and pretreatment

- Self-cleaning screening systems
- Bag & cartridge filtration
- Chlorination systems
- OSEC® hypochlorite generation systems
- Cold lime softening systems
- Chlorine dioxide
- Softeners
- Microsand filtration
- Multimedia filtration

### Production and ingredient-quality

- UV disinfection
- Ozone disinfection
- Ultrafiltration
- Nanofiltration
- Reverse osmosis
- Membrane clean in place (CIP) systems
- Service deionization
- Continuous electrodeionization (CEDI)
- Laboratory water solutions
- Water One® Services

### Carbon filtration

- CT carbon towers – Steam sanitizable stainless steel carbon towers
- Heat optimized technology (HOT) recirculating systems
- Carbon media
- Media/media exchange services

### Disinfection\*

- OSEC® Hypochlorite Generation Systems
- Gas Chlorination Systems
- UV Disinfection
- Ozone Disinfection

## UTILITY WATER

Heating and cooling for beverage production require a constant supply of high quality water to maintain efficiency. The right water treatment solution can optimize the efficiency of your utility systems, helping to minimize water usage and maximize thermal effectiveness.

### Boiler feedwater

- Softening
- Activated carbon
- Deionization & services
- Reverse osmosis

### Cooling tower makeup & recycle

- Self-cleaning screening systems
- Ozone, UV, onsite chlorine generation

### Laboratory

- Countertop systems
- Deionized water
- Resin exchange services
- Handheld water quality testing meters

\* Performance limitations depend on feed conditions, overall installed system design, and operation and maintenance processes; please refer to Operations Manuals. For specific information on disinfection claims, please visit [www.evoqua.com/en-GB/articles/disinfection-performance-and-validation](http://www.evoqua.com/en-GB/articles/disinfection-performance-and-validation)

## SERVICE

Evoqua's AQUA pro service professionals can ensure your water processes remain efficient for maximum uptime. Our service professionals are system and application experts and provide a wealth of services from installation and commissioning to scheduled deliveries and maintenance. They are backed by engineering teams, and together they can provide proactive recommendations that positively affect a customer's bottom line. Other services include carbon and resin exchanges, membrane cleaning and process troubleshooting as well as planned maintenance and, when requested, fully staffed operations.

Our service is backed by more than 100 branches across North America and can reach 80% of our largest customers within 1.5 hours.

- 24/7 Customer Service and Tech Support
- Repair, Retrofit & Mobile Systems
- Operation & Maintenance Contracts
- Off-site Resin Regeneration
- Off-site and On-site Membrane Cleaning
- Remote Monitoring Systems
- Instrument & Controls Technicians
- Sanitation Services
- Water Analysis and Analytics
- Water Audits/System Optimization
- Water One® Services



## WASTEWATER

As water is used in the production process, it can pick up a variety of contaminants that require removal to acceptable levels before discharge from the manufacturing facility. Evoqua can help you treat and recycle wastewater in accordance with local discharge requirements.

### Pretreatment

- pH adjust/waste acid neutralization

### Anaerobic

- Low Rate Anaerobic ADI-BVF® Reactors, Continuously Stirred Tank Reactor (CSTR), Anaerobic Membrane Bioreactor (AnMBR), Anaerobic Dissolved Gas Flotation (AnDGF), External Circulation Sludge Bed (ECSB) Systems
- Biogas Storage, Upgrading, and Utilization
- Equipment Supply, Design-Build, Build-Own-Operate
- Operations, Service, and Maintenance

### Aerobic

- Sequencing Batch Reactor (SBR), Membrane Bioreactor (MBR), Moving Bed Bioreactor (MBBR), Rotating Biological Contractors (RBC), Activated Sludge
- Nutrient Removal
- Equipment Supply, Design-Build, Build-Own-Operate
- Operations, Service, and Maintenance

### Clarification and Separation

- Dissolved Air Flotation (DAF) Systems
- Ballasted Clarification Systems
- Circular Clarifier Systems
- Hydrocyclone Centrifugal Separators

### Covers and Liners

- Floating Biogas Collection Covers
- Structurally Supported Covers
- Containment Liners
- Biogas Control Systems
- Modular Covers

### Water Reclaim and Reuse

- Ultrafiltration Systems
- Membrane Bioreactor
- Reverse Osmosis and Brine Recovery
- VAF™ Automatic Self-Cleaning Filters

### Sludge Storage and Dewatering

- J-Press® Filter Press Systems
- Rotary Press
- Sludge Holding Tanks

### Odor Control

- Structurally Supported Covers
- Biological Odor Control Systems
- Carbon Adsorption

## SUSTAINABILITY: WATER DEMAND, RE-USE & ENERGY CAPTURE

Sustainability is a core value at Evoqua and we pride ourselves in helping customers meet or exceed their sustainability goals while maintaining compliance. We are committed to reducing greenhouse gas emissions and enhancing energy recapture by helping our customers reduce the demand of fresh water by reclaiming a percentage of gray water and wastewater, and create their own energy with our waste-to-energy technology offerings.

## WATER REUSE & ENERGY CAPTURE

### Recycle & Reuse

- Brine recovery reverse osmosis
- Ultrafiltration, nanofiltration, reverse osmosis, sand filter
- Membrane bioreactor, reverse osmosis, disinfection

### Energy capture

- Floating & structurally supported covers
- Biological systems



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