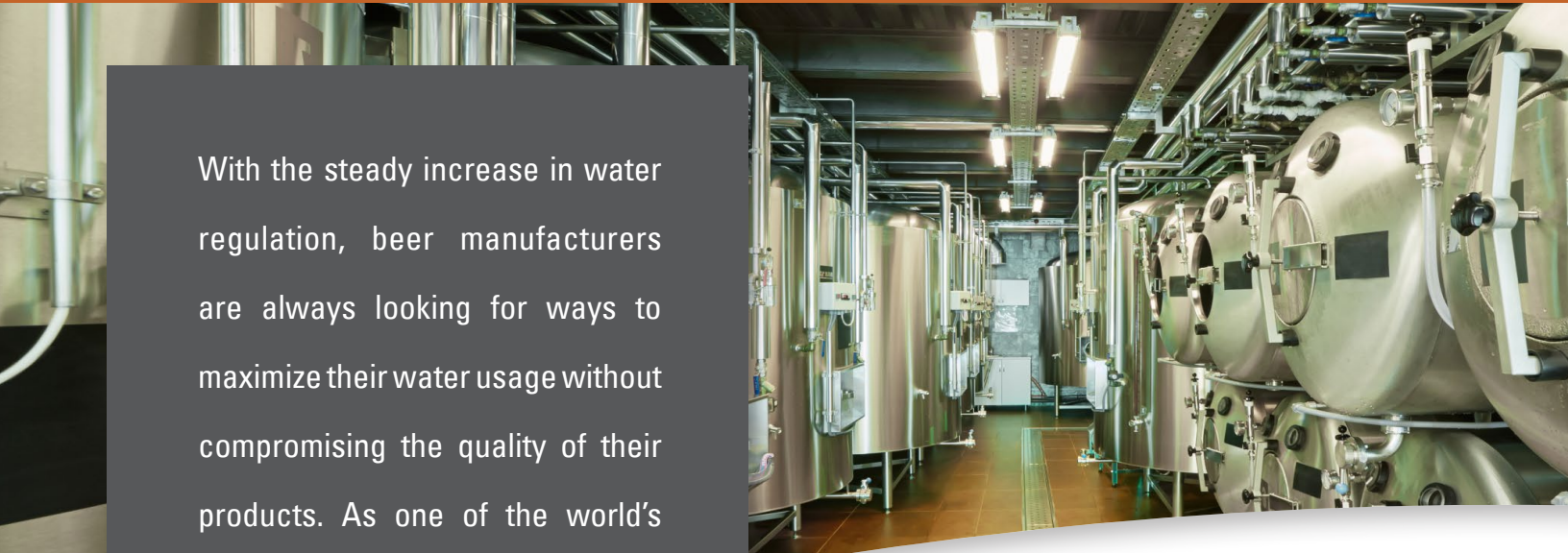


BREWING INDUSTRY



With the steady increase in water regulation, beer manufacturers are always looking for ways to maximize their water usage without compromising the quality of their products. As one of the world's largest providers of water treatment products and services, ChemTreat is strategically positioned to assist with these regulatory challenges.

Critical Systems Need Expert Care

As the brewing industry continues to grow, breweries are under intense pressure to optimize processes and increase throughput. They must balance this performance imperative with their corporate responsibility to address growing environmental concerns and adapt to the increasing regulations around water usage and disposal.

The utility water systems and packaging processes that are critical to brewery operations require the expert application of specialty chemicals and services. If these services are not performed properly, or treatment is neglected altogether, the consequences are considerable, i.e., heat exchanger corrosion, slime, and biological accumulation in cooling towers and individual pasteurizers, mineral scale deposition in utilities boilers, and organic deposits in pasteurizers. Improper management of these

systems can cause losses from machine downtime, unfulfilled demand, and necessary repair services. Improper process water treatment has the potential to degrade product quality and, ultimately, your brand. The 'musty' or 'medicinal' tastes in canned beer may be a direct result of poor water treatment and the failure to address certain bacteria strains which may form in the pasteurizers. The physical image of your brew could be impacted through can staining, can spotting, and bottle spotting, which may be caused by the wrong selection of treatment chemicals or external contamination of the treated water.

Fortunately, ChemTreat is a full service provider of water treatment solutions that can support day-to-day brewery operations.

ChemTreat has built lasting relationships with a wide variety of valued customers over the years, and we have developed a deep understanding of the unique problems that our customers face on a daily basis. As a result, our expertise is segmented into specialized, industry-specific representatives who are independently the best in their field at protecting a client's assets and maximizing efficiency of critical processes. It is this level of targeted expertise that allows us to prevent and troubleshoot problems before they can adversely impact our customers' ability to accomplish their core mission.





IMPROVED HALOGEN RESIDUAL CONTROL

A large brewery in Eastern US installed ChemTreat's new chlorine analyzers on their lines to tightly control the feed of halogen residuals in their pasteurizers. The analyzer-controller also maintained proper chlorine-bromide combination levels. The result was improved automation and pasteurizer water quality, saving the plant thousands of dollars in chemical expenditures, but more importantly, extending the useful service life of the pasteurizers.

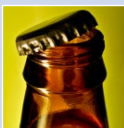
PRODUCT QUALITY IMPROVEMENT

Several large North American Breweries were experiencing consumer complaints related to "Musty" or "Medicinal" taste in 12 and 16 ounce cans. ChemTreat recommended a change in pasteurizer and filler operation to avoid/minimize empty can exposure to the atmosphere on the packaging floor. The result was a virtual elimination of these complaints going forward, restoring the high quality standards of the affected breweries.

CAN STAINING & BOTTLE CROWN RUST PREVENTION

Can staining and spotting was periodically evident in 12 and 16 ounce cans in selected brewery pasteurizers. Bottle Crown rusting was also occurring at many Caribbean breweries. ChemTreat recommended specific corrosion-deposit inhibitors tailored for the individual brewery pasteurizer, along with automated product feed. The result was a virtual elimination of these problems, restoring product package appearance.

Applications Specific to the Brewing Industry



PASTEURIZER TREATMENT

- Advanced solutions that prevent biological fouling, reduce the likelihood of legionella contamination, and provide deposition and scale control
- Complete line of application and dispensing equipment, cleaners, sanitizers, and disinfectants



COOLING WATER TREATMENT

- Innovative cooling technologies that are USDA/ FDA/NSF/EPA approved, such as biocides and scale and corrosion inhibitors
- Phosphate-free programs to comply with regulations while reducing environment impact



BOILER WATER TREATMENT

- USDA/FDA/NSF-approved boiler water, feedwater, and steam treatments
- Softeners, dealkalizers, deaerators, and other mechanical pretreatment equipment



REMOTE MONITORING & CONTROL

- Advanced control systems that can interface with web-enabled data management software
- Expertise to link our control equipment with your current operating systems

