



#### SANITIZATION

## Why Sanitize Filtered Water?

Water (regardless of its purity) that is stored for any period of time can be a breeding ground for microorganisms, which leads to a buildup of biofilm (a slimy combination of bacteria, fungi, algae, and protozoa) on surfaces. This can occur in any water reservoir – a plastic bottle, a tea kettle, even the stainless steel tank of a filtered water cooler. That is why Quench machines with water storage tanks are equipped with one of two highly effective methods of sanitization: ultraviolet sanitization or ozonation. Both are energy-efficient and reliable methods of eliminating micro-organisms in water.

## What is Ultraviolet (UV) Sanitization?

UV sanitization is a technology that uses short wave-length ultraviolet light to prevent the growth of potentially harmful micro-organisms in drinking water. UV light destroys the nucleic acid in micro-organisms, which disrupts cell structure and prevents reproduction. Ultraviolet light eliminates 99.9999% of micro-organisms, including bacteria, viruses, and parasites. Even cryptosporidium and giardia, which are highly resistant to chemical disinfectants, are eliminated by ultraviolet light.

There are two methods of UV sanitization in filtered water coolers:

- ◆ In-tank: the UV lamp is located inside the water storage tank, and sanitizes the surfaces of the tank as well as the water around it
- Recirculating: the water itself (rather than the tank) is sanitized when it passes the UV lamp.

Ultraviolet sanitization of drinking water has been used effectively in the United States for nearly 100 years.

### What is Ozonation?

Ozone, which is a form of oxygen sometimes referred to as "activated oxygen" (O<sub>3</sub>), is a powerful sanitizing agent. It's even more effective than chlorine at eliminating molds, viruses, bacteria and other micro-organisms. Ozone also does an excellent job removing off-tastes and odors in water.

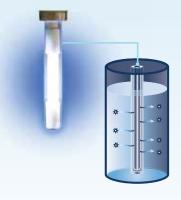
Ozonation occurs when bubbles of activated oxygen are injected into a water cooler's reservoir (typically a process known as "corona discharge"). The unstable third oxygen atom attaches itself to contaminants in the water or the tank and oxidizes them. Ozone converts quickly back into oxygen. Ozone has been used since the late 1800s to purify water.

# Sanitization + Filtration = Cleaner, Healthier Drinking Water

Sanitization is most effective when combined with one or more methods of filtration. Filtration is a mechanical process that removes sediment, dissolved particles, chorine, metals and other chemicals, cysts, off-tastes, and odors from water. Quench employs two methods of advanced filtration for drinking water: advanced carbon filtration and reverse osmosis. The result of anti-microbial sanitization combined with filtration is clean, healthy and delicious drinking water.

To learn more about water sanitization, call **(844) 557-8320** to speak with a Quench Water Expert or visit our website: **quenchonline.com**. You can also learn more about advanced carbon filtration and reverse osmosis on the Frequently Asked Questions (FAQs) page of our website.

#### In-tank UV Sanitization



**Ozonation Process** 









