

# Central Sterile Water Systems

for the Healthcare Industry



**AmeriWater**  
The Water Purification Specialists

# AAMI ST108: An Overview

The Association for the Advancement of Medical Instrumentation (AAMI) issued ST108 to provide valuable information to healthcare industry professionals regarding water quality as it pertains to medical device processing.

Contaminants found in water can vary significantly depending on the source of water utilized by the facility. These contaminants (visible or nonvisible) have created increasing challenges faced by healthcare professionals and can contribute to decontamination issues such as discoloration, corrosion, pitting, and biofilm build up on instruments.

Due to these risks and safety concerns on equipment and instrumentation, AAMI created ST108 to be the standard for monitoring frequencies, system designs, and best practices to mitigate risks with water quality. Historically, regulatory agencies such as CMS (Center for Medicare Services), TJC (Joint Commission), and others will adopt these standards.



## What does ST108 cover?

ST108 highlights the importance of creating a cross-functional team to address the responsibilities with developing a water management program for the water treatment system.

The cross-functional team typically consists of Facility Engineering, Infection Prevention, Sterile Processing, Water Treatment Specialists, and others to establish the different responsibilities regarding the water system. A water management program should consist of the following:



Risk  
Analysis



Water Treatment  
Design



Validation of the  
Water System



Monitoring the  
Water Quality



Maintaining the  
Water System

# AmeriWater is an industry leader in the design, manufacture, installation and supply of water purification systems and services for the **healthcare sector**.

Our water filtration systems meet the AAMI ST108 water quality specifications for washers, disinfectors, glassware washers, steam boilers and final rinses. Our water systems combined with proper maintenance and monitoring will help you meet the AAMI ST108 standard.

## Central Sterile **Water Systems**

### High-quality water treatment solutions for patient health and equipment life

These complete systems include a reverse osmosis unit, storage tank with demand pump package that provides from 800 to 14,400 GPD, alarm panel with remote alarm, ultraviolet light and an endotoxin filter. Note that DI water is required for the system to meet the AAMI standards. AmeriWater offers two options, a two-column Silex Deionizer (as shown below) or DI Exchange Tanks. An optional blend valve is also available (77° feed water temperature recommended).

#### Advantages

##### Create critical water consistently.

Our reliable systems ensure no impurities are left behind on the instruments. Less wear, less opportunity for contamination exists.

##### Complete water treatment systems.

You'll only need to work with our water purification specialists to achieve high purity critical water within the system as a whole.

##### Work healthier.

Meeting ST108 standards prevents the spread of bacteria and other contaminants that may harm your patients.

##### Save money.

Our system meets current water quality standards making your facility much less likely to need another upgrade if standards change.



# Reliable Water Filtration Packages for Sterile Processing

Everything you need to achieve critical water in a space-conscious layout

1. Tempered tap water from the blend valve enters the water system through the carbon filters, which remove chlorine.
2. Anti-scalant is injected into the RO feed water stream to control hardness scaling.
3. Water flows into the reverse osmosis (RO) unit to remove dissolved impurities from the tap water.
4. RO product water flows through the mixed bed deionizer then to the storage tank.



▶ WIDE RANGE OF SYSTEMS  
800 GPD TO  
>14,000 GPD



▶ ULTRAFILTRATION  
REMOVES  
ENDOTOXINS



▶ UV LIGHT  
CONTROLS  
BACTERIA



▶ LOW FLOW  
30 GPM  
70 GPM  
HIGH FLOW



▶ CONSISTENTLY  
PRODUCES AND  
DELIVERS  
CRITICAL  
WATER



Hot Water Supply Cold Water Supply

1. BLEND VALVE

8. ALARM PANEL

2. ANTI-SCALANT

3. REVERSE OSMOSIS

4. DEIONIZER

5.

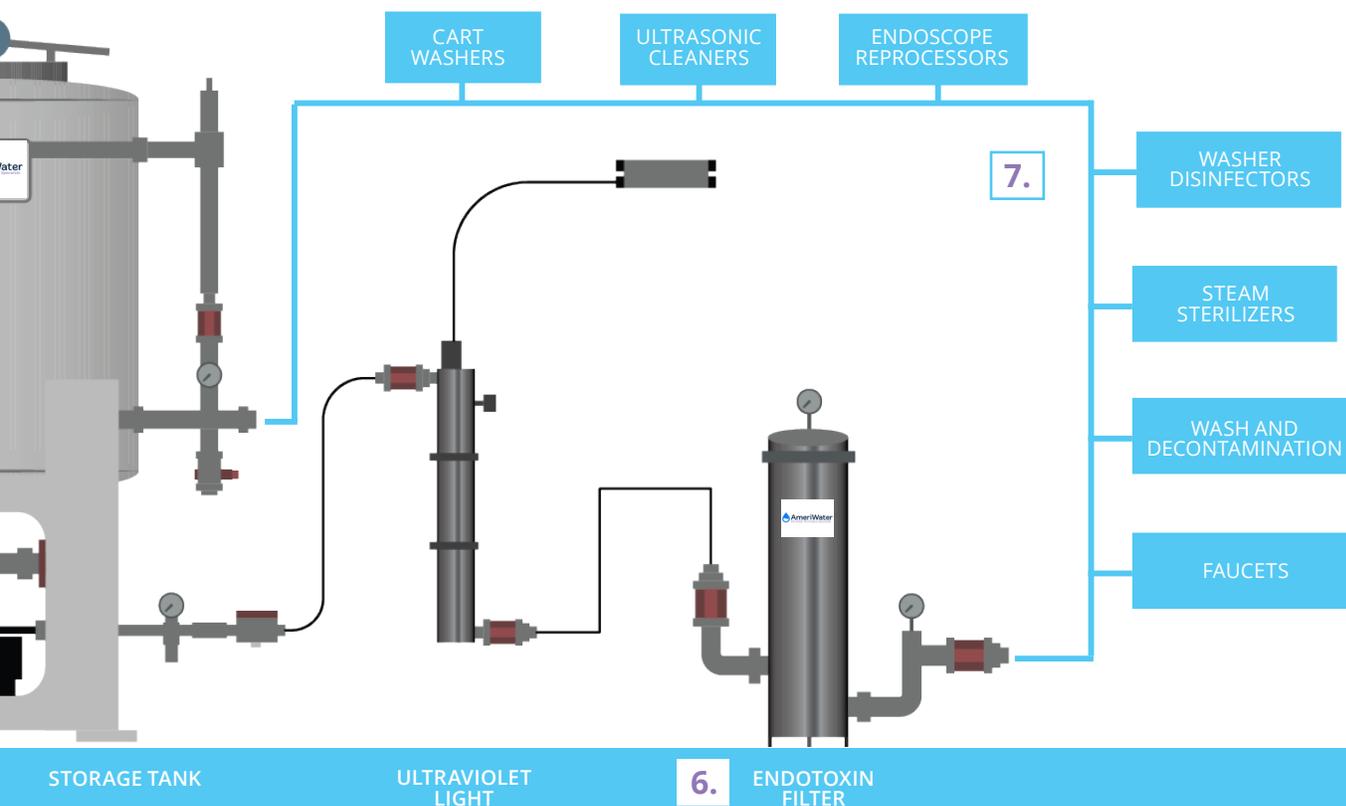
5. Water from the storage tank is repressurized and sent to the UV disinfection unit.
6. Water then flows into a final bacteria/endotoxin filter and then is continuously recirculated to the usage points throughout the sterile processing department.
7. Water from the continuously flowing distribution loop is recirculated back to the storage tank and monitored and controlled by a return flow meter, pressure gauge and relief valve.
8. The entire AmeriWater ST108-compliant central sterile water system is monitored by a central alarm panel.



## AAMI ST108 COMPLIANCE: ACHIEVE THE STANDARD

AmeriWater Solutions Cover:

- ✓ System Design and Validation
- ✓ Distribution Design Loop
- ✓ Routine Maintenance
- ✓ Risk Mitigation and Lab Testing



# Upgrade Your Existing System

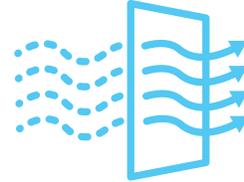
Bring your current healthcare water system up to the ST108 standard with our simple upgrade kits

Your upgrade will include:



## Ultraviolet Light

- Controls bacteria proliferation in purified water storage and distribution systems
- Equipped with an online monitor to measure output intensity and alarms when lamp needs replaced



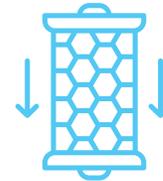
## Ultrafiltration

- Installed post UV to remove endotoxins from the purified water storage and distribution system



## Alarm Panel

- Monitors system operating conditions
- Includes RO alarm, low storage tank, and DI resistivity
- Remote alarm included for continuous system monitoring outside water room



## Storage Tank Flowmeter and Vent Filter



Our system options come in 30 and 70 GPM. Contact our water professionals and see how this simple upgrade can save you money today.

# Testing for Central Sterile Water Systems

As long-established water purification specialists, AmeriWater has a deep understanding of the critical role high-purity water plays in many industries and offers a full range of water testing capabilities.

After your initial ST108-compliant water system install, it's important to continue to monitor and maintain your system to ensure continued compliance. For your convenience, AmeriWater ships a free validation test and first month's monitoring tests with your system at no charge to you. These complimentary kits contain all necessary supplies for drawing and shipping water samples to simplify the testing process for you.

Once your samples arrive at our lab facilities, our skilled laboratory professionals utilize state-of-the-art instrumentation and validated methods for accurate and reliable results, delivered fast.



## Why should you test your water quality?

By validating the performance of your water treatment system and routinely monitoring the water quality for your utility water, critical water or steam applications, you can identify and address potential water concerns before they cause harm to patients, processes and devices.

### Validation Testing

Validation testing provides documented evidence that the water treatment system is operating as intended and is capable of consistently producing water that meets the necessary quality criteria. This documentation is essential for demonstrating compliance with AAMI ST108 requirements.

*Testing includes:*

AAMI Contaminant • Microbiological  
Total Organic Carbon (TOC) • Endotoxin

### Routine Testing

Routine monitoring tests are essential for maintaining continuous quality assurance, detecting issues early, verifying compliance with standards, implementing preventive maintenance measures and optimizing water treatment processes in sterile processing departments.

*Testing includes:*

AAMI Contaminant • Microbiological  
Endotoxin

## NO CHARGE Consultation

**AmeriWater also offers NO CHARGE consultation by phone regarding disinfection procedures, monitoring schedules, proper design layout and more to help solve your water treatment issues.**

## About AmeriWater

Facilities require water treatment for a variety of applications, each with its own unique standards and requirements. At AmeriWater, we understand these varying needs and have designed a range of water purification systems specifically tailored to the needs of each central sterile application.

Our extensive range of central sterile solutions means you have a reliable single source for all your water treatment needs, saving you valuable time coordinating technical compatibilities between several suppliers.

Our product offering is supported by our in-house expertise, and our nationwide network of sales and service dealers means we can provide same day support to any US location.

For more information on our systems or requests to join your cross-functional team as a water treatment specialist, please contact one of our experts today at 800-535-5585.



---

3345 Stop 8 Road  
Dayton, Ohio 45414 U.S.A  
1 (800) 535-5585  
[www.ameriwater.com](http://www.ameriwater.com)  
[info@ameriwater.com](mailto:info@ameriwater.com)