

Laboratory Services

Comprehensive Water Testing Solutions



AmeriWater Laboratory Services

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

Our Laboratory Services offer a full range of water testing capabilities to provide your facility with the knowledge and clarity to ensure patient and equipment safety.

Equipped with state-of-the-art instrumentation and validated methods, our skilled lab professionals ensure accurate and reliable testing results, delivered rapidly to provide compliance for your water treatment system.

AAMI Contaminant Testing

AmeriWater offers reliable ANSI/AAMI/ISO 23500 and ANSI/AAMI ST108 testing for tap and product water contaminants in dialysis centers and central sterile processing applications. AAMI Contaminant Testing is to validate the final water quality meets the current AAMI standards for contaminant levels in dialysis and central sterile markets that have an impact on patient safety and processing of surgical instruments. We deliver results in 5 business days, with a 3-day STAT option available for an extra fee.

Microbiological Testing

Testing for bacteria is crucial to help prevent serious risk to dialysis patients with weakened immune systems from kidney disease. In addition, high bacteria levels in water can contaminate medical devices and lead to post-surgery infections. Our Microbiological Testing utilizes Heterotrophic Plate Count Methods to ensure the most accurate CFU/ml results. Testing results provided 24 – 48 hours from receipt of sample.

Total Organic Carbon (TOC) Testing

TOC Testing is critical, as high TOC levels can serve as nutrition to microorganisms and contribute to microbial growth on medical devices. They can also interfere with detergents or disinfectants effectiveness for cleaning. Testing result turnaround times will vary.

Endotoxin Testing

AmeriWater utilizes the Kinetic Chromogenic Testing Method for endotoxin, providing exact endotoxin levels with both positive and negative controls to ensure accurate results. The test is performed to ensure endotoxin levels are within current AAMI 23500 and ST108 standards. A high concentration of endotoxins present in water can cause pyrogenic reactions in dialysis or surgical patients. Testing results provided 24 – 48 hours from receipt of sample.

Reverse Osmosis Feed Water Analysis

The Reverse Osmosis Feed Water Analysis offers comprehensive insights into the chemistry of your feed water, covering minerals, organics, and contaminants. This detailed analysis helps to determine the type of pretreatment equipment required to effectively operate your reverse osmosis system and enhance the final water quality. Testing results provided 2 weeks from receipt of sample. *Note: This test does not include Silt Density Index testing. If you require this, contact us directly for assistance.*

Particle Size Distribution Analysis

This is a technique for analyzing the suspended solids within a water sample. Our Particle Size Distribution Analysis provides valuable insights into the range and quantities of these particles, which can significantly impact water quality and treatment processes. Testing results provided 2 days from receipt of sample.

Part Numbers	Description	Recommended Frequency	Market Segment
00AAMI-DIA-5	Standard AAMI Contaminant Test for Dialysis	Annually	Dialysis
00AAMI-DIA-3	STAT AAMI Contaminant Test for Dialysis	Annually	Dialysis
00AAMI-CS-UWV	AAMI Contaminant Test for Utility Water (Validation – One Time Testing)	One-Time	Sterile Processing
00AAMI-CS-CWV	AAMI Contaminant Test for Critical Water (Validation – One Time Testing)	One-Time	Sterile Processing
00AAMI-CS-STV	AAMI Contaminant Test for Steam (Validation – One Time Testing)	One-Time	Sterile Processing
00AAMI-CS-UWM	AAMI Contaminant Test for Utility Water (Routine Testing)	Quarterly	Sterile Processing
00AAMI-CS-CWM	AAMI Contaminant Test for Critical Water (Routine Testing)	Monthly	Sterile Processing
00AAMI-CS-STM	AAMI Contaminant Test for Steam (Routine Testing)	Quarterly	Sterile Processing
00AAMI-MICRO	Heterotrophic Plate Count Test for Bacteria	Monthly	Dialysis / Sterile Processing
00AAMI-LAL	Kinetic Chromogenic LAL for Endotoxins	Monthly	Dialysis / Sterile Processing
00AAMI-TOC	Total Organic Carbons Test	Monthly	Dialysis / Sterile Processing
00FWA	Feed Water Analysis	As Required	All Markets
00PSDA	Particle Size Distribution Analysis	As Required	Industrial

Sample kits can be shipped for testing Monday – Thursday. If you require samples to be shipped on Friday for Saturday testing, simply submit a special request in advance so we may accommodate you.

Why should you test your water quality?

Facilities in a wide variety of markets need water treatment for dialysis, central sterile services, laboratories, and industrial applications. By validating the performance of your water treatment system and routinely monitoring the water quality, you can identify and address potential water concerns before they cause harm to patients, processes and devices.

Validating and routinely monitoring water quality is important to:



Ensure that the water is safe for patients.

Contaminants in water can cause serious infections or toxicity to patients. Contaminants can also have an adverse effect on surgical instruments that are reprocessed.



Protect the effectiveness of cleaning and sterilization processes.

For example, hard water can interfere with the effectiveness of cleaning solutions, while high levels of minerals can interfere with steam sterilization.



Prevent damage to medical devices.

Water impurities can damage medical devices, especially those with delicate components. For example, corrosion can occur on metal devices if exposed to water with high levels of minerals.



Dig deep into water chemistry.

Analysis reveals minerals, organics and hidden contaminants that can cause potential seasonal and overall performance issues, disrupting your facility's operations.



Comply with AAMI requirements.



Free Testing Kit

AmeriWater provides a complimentary kit containing all necessary supplies for drawing and shipping water samples to simplify the testing process for you.

Water Quality Standards

The following tables identify the current AAMI Water Quality Standard Limits.

Note: Bacteria, Endotoxins and TOC testing must be ordered separately from AAMI panel part numbers. Refer to current standards on test frequency and locations.

AAMI ST108 Sterile Processing Water Quality Standards (*Routine Testing*)

Water Quality Measurement	AAMI Suggested Maximum Limit		
	Utility Water (00AAMI-CS-UWM)	Critical Water (00AAMI-CS-CWM)	Steam (00AAMI-CS-STM)
pH @ 25 °C(pH):	6.5 – 9.5	5.0 – 7.5	5.0 – 9.2
Conductivity (microsiemens)	500	10	10
Total Alkalinity (mg CaCO ₃ /L)	400	8	8
Total Hardness (mg CaCO ₃ /L)	150	1	1
Color and Turbidity	Colorless	Colorless	Colorless

AAMI ST108 Sterile Processing Water Quality Standards (*Validation Testing*)

Water Quality Measurement	AAMI Suggested Maximum Limit		
	Utility Water (00AAMI-CS-UWV)	Critical Water (00AAMI-CS-CWV)	Steam (00AAMI-CS-STV)
pH @ 25 °C(pH):	6.5 – 9.5	5.0 – 7.5	5.0 – 9.2
Conductivity (microsiemens)	500	10	10
Total Alkalinity (mg CaCO ₃ /L)	400	8	8
Chloride (mg/L)	250	1	1
Nitrate (mg/L)	10	1	1
Phosphate (mg/L)	5	1	1
Sulfate (mg/L)	150	1	1
Silicate (mg/L)	50	1	1
Iron (mg/L)	0.1	0.1	0.1
Copper (mg/L)	0.1	0.1	0.1
Manganese (mg/L)	0.1	0.1	0.1
Aluminum (mg/L)	0.1	0.1	0.1
Zinc (mg/L)	0.1	0.1	0.1
Total Hardness (mg CaCO ₃ /L)	150	1	1
Color and Turbidity	Colorless	Colorless	Colorless

Free Consultation

As water purification specialists, AmeriWater also offers FREE consultation by phone regarding disinfection procedures, monitoring schedules, proper design layout and more to help solve your water treatment issues.

AAMI 23500 Dialysis Water Quality Standards (00AAMI-DIA-5&3)

Contaminant	AAMI Suggested Maximum Limit
Aluminum (mg/L)	0.010
Antimony (mg/L)	0.006
Arsenic (mg/L)	0.005
Barium (mg/L)	0.100
Beryllium (mg/L)	0.0004
Cadmium (mg/L)	0.0010
Calcium (mg/L)	2.000
Chromium (mg/L)	0.014
Copper (mg/L)	0.100
Fluoride (mg/L)	0.200
Lead (mg/L)	0.005
Magnesium (mg/L)	4.000
Mercury (mg/L)	0.0002
Nitrate (mg/L)	2.000
Potassium (mg/L)	8.000
Selenium (mg/L)	0.090
Silver (mg/L)	0.005
Sodium (mg/L)	70.000
Sulfate (mg/L)	100.000
Thallium (mg/L)	0.002
Zinc (mg/L)	0.100
Resistivity (megohm)	N/A
Dissolved Solids (TDS)	N/A

AAMI ST108 & 23500 Endotoxin Standards (00AAMI-LAL)

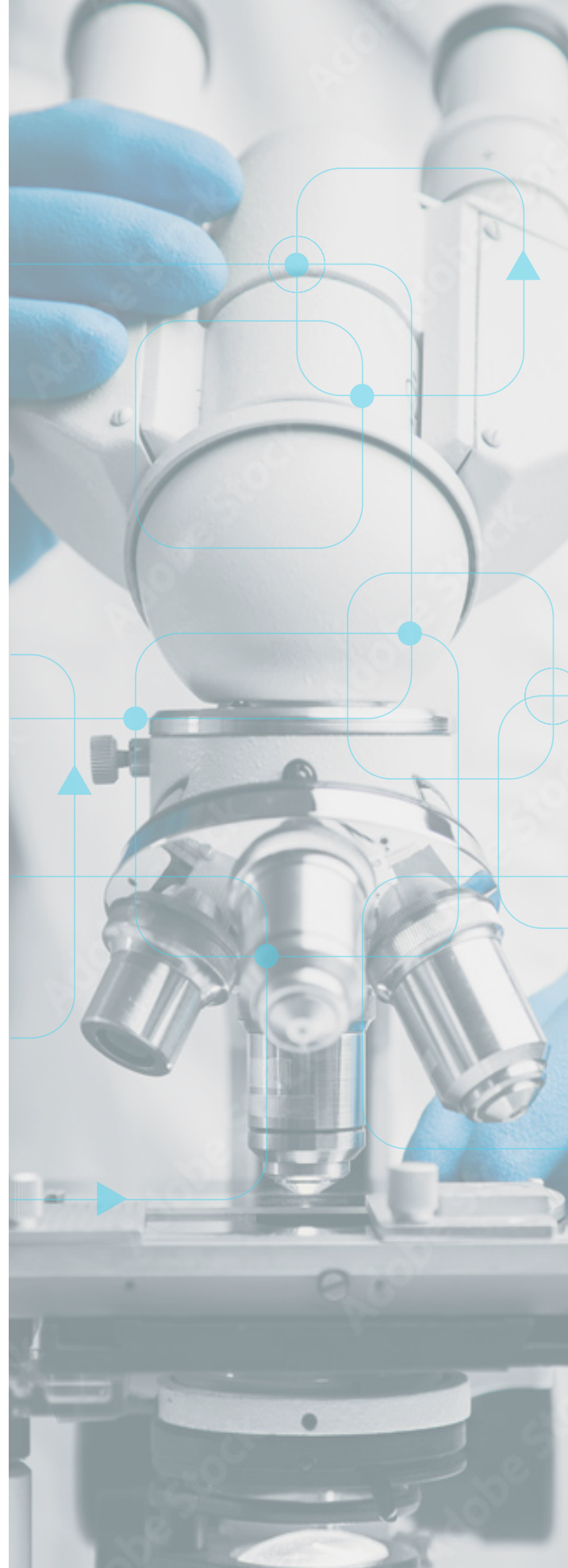
Water Quality Measurement	AAMI Suggested Maximum Limit	
	Critical Water	Dialysis (AAMI 23500)
Endotoxin (EU/mL)	10	0.25

AAMI ST108 & 23500 Bacteria Standards (00AAMI-MICRO)

Water Quality Measurement	AAMI Suggested Maximum Limit		
	Utility Water	Critical Water	Dialysis (AAMI 23500)
Bacteria (CFU/mL)	500	10	100

AAMI ST108 TOC Standards (00AAMI-TOC)

Water Quality Measurement	AAMI Suggested Maximum Limit
	Critical Water
Total Organic Carbon (mg/L (ppm))	1





About AmeriWater

Facilities require water treatment for a variety of medical and industrial 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 application.

Our extensive range of 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 1-800-535-5585.



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