

## MICROELECTRONICS SERVICE SOLUTIONS

OPTIMIZE YOUR WATER SYSTEM PERFORMANCE



## Our Commitment to Safety

#### **EVOQUA SAFETY PROCESS**

Our first and most important obligation is the safety of our employees and our customers. Evoqua's Safety Process incorporates best-inclass techniques and tools to ensure safe working conditions.

#### TAKE 2

Evoqua empowers all employees to work safely and prevent injuries. One of the primary tools we utilize to ensure safe working conditions is the TAKE 2 process. All employees are trained to perform this process before beginning any activity, task or job.

#### The TAKE 2 process:

- Assess the Risk
- Analyze How to Reduce the Risk
- Act to Ensure Safe Operations

#### **STOP WORK**

Every Evoqua employee has the right, authority and responsibility to stop any unsafe work without repercussion.

#### STANDARD WORK INSTRUCTION

Standard work instruction provide clear guidelines for work procedures and are reviewed and updated on a regular basis to ensure best practices.

#### **BEHAVIOR OBSERVATIONS**

A mobile platform is used to observe the execution of work in the field and provide feedback for improvement and safe execution.

#### **ORGANIZATIONAL ENGAGEMENT**

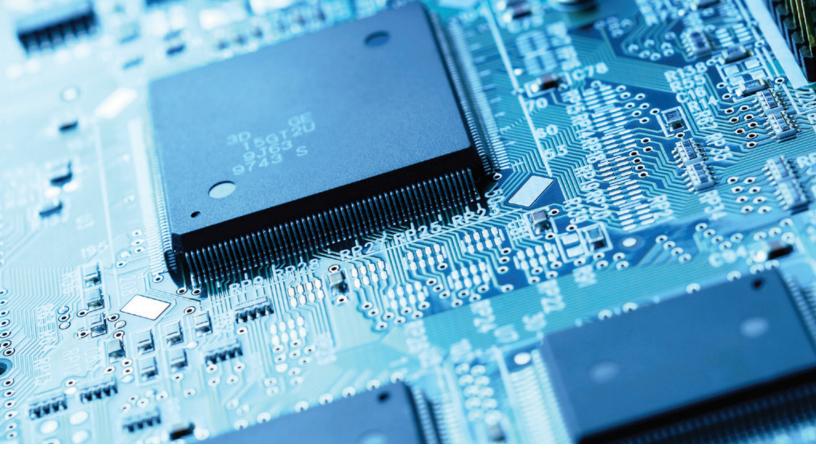
Evoqua employees take part in daily safety discussions to share information and learning.



## ConstructSecure® Services

Evoqua is a member of ConstructSecure Inc. with our safety statistics available for review.

AT EVOQUA, SAFETY IS OUR FIRST AND MOST IMPORTANT OBLIGATION TO OUR EMPLOYEES AND OUR CUSTOMERS.



### Microelectronics Service Solutions

#### **INCREASE RELIABILITY & UPTIME**

As a leading water solutions provider for the microelectronics market, Evoqua has the knowledge and expertise to effectively service your water and wastewater equipment. This ensures optimal performance for increased reliability and uptime.

#### THE EVOQUA DIFFERENCE

Evoqua improves upon traditional approaches to service by leveraging decades of experience in water system design, an unmatched local service network and digital remote monitoring technology to deliver the quality and quantity of water you need—when you need it.

- Best-in-Class Safety Practices
- Vertical Market Knowledge & Expertise
- Custom Service Plans to Meet Your Needs
- Local & Regional Stock of Common Parts
- 24/7 Remote Monitoring with Real-Time Visibility & Response
- Structured Service Technician Training
- Providing the largest service network in North America

140+

Global service locations

300+

Service technicians

2 hrs

Avg. travel time to 90% of industrial customers

# MICROELECTRONICS KNOWLEDGE & EXPERTISE

Evoqua has more than 40 years of experience in designing, manufacturing and servicing ultrapure water systems (UPW) for microelectronics applications. We have kept pace with technology changes in this fast-paced industry, providing advanced water treatment technologies to help semiconductor companies reach their objectives.



Evoqua is an active and participating member of SEMI¹ and IRDS² where we work on committees to establish and develop standards and research to advance technologies for the semiconductor industry. We continue to invest in and are committed to supporting the semiconductor industry with technical expertise, our own in-house UPW systems and development of new technologies in our 1,700 square-foot Microelectronics Technology Suite.

#### WIDE RANGE OF SERVICES

UPW systems require careful attention to preventative maintenance to prevent downtime. Evoqua provides parts and services for UPW systems to help you maintain your system for reliable operation.

In addition to offering a full range of waste treatment systems—hydrofluoric acid waste, ammonia waste, AWN, copper (CMP) waste, dicing and back grinding waste—Evoqua provides critical services to help you meet your discharge and sustainability goals.

#### **UPW/WASTEWATER SYSTEM SERVICES\***

Filter replacement	Cartridge filters, ultrafilters, micro filters, RO membranes
Media replacement	Carbon, filter sands, softener resin, cation, anion and mixed bed resins, and specialized media
Preventative and routine maintenance	Rotating equipment, filters, probes, gauges, reagents, pH, conductivity, chlorine, hardness calibrations, etc.
Filter press operations	Run filter press cycle to free up operations/technicians for other activities
Service carbon and deionization	Scheduled and emergency replacement of ion exchange vessels and carbon vessels with new media
Performance testing and analytical	Water quality testing (in-house, on-site and third party) analysis
Sanitization	Chemical and ozone sanitization services

Note: This tables provides a high-level summary of services. Please ask your Evoqua representative about additional service offerings.

\*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: https://www.evoqua.com/en-GB/articles/disinfection-performance-and-validation/

- 1 SEMI is the global industry association representing the electronics manufacturing and design supply chain.
- 2 IRDS stands for International Road Map for Device and Systems, a UPW Yield Enhancement team.



Evoqua is your trusted partner for best-in-class service solutions.

#### **SYSTEM AUDITS**

Is your UPW system performing as well as it can and delivering the quantity and quality you require? Evoqua can help by conducting a comprehensive system audit.

An Evoqua technical expert will inspect your overall process, existing equipment and gather key operating parameters and water analyses to develop a system model. A full system report will be provided with recommendations to improve performance such as water conservation, water quality, reliability, and operating costs.

#### SYSTEM AUDIT PROCESS

Develop a process flow diagram and water efficiency calculation

Collect and analyze water quality information

Determine operating costs

Review system components and key operational parameters

Final report

#### **LOCAL & REGIONAL PARTS**

Evoqua is your one-stop-shop for parts and resin with a central distribution facility in Rockford, IL and locally stocked critical spares at our 90+ branch locations in North America. This reduces risk from supply chain issues and ensures you have the parts you need.

Our Rockford, IL warehouse is the primary distribution center, stocking over 6,000 replacement parts and 600 batches of various types of ion exchange resin for semiconductor, nuclear, food & beverage, pharmaceutical and general industrial clients.

The 166,000 square-foot, multi-level storage facility is strategically located close to UPS $^1$  and FedEx $^2$  airfreight hubs and other national carrier hubs. The Rockford facility is also staffed with experts in inventory management and shipping, including international protocol.



Evoqua's central distribution facility in Rockford, IL

#### SERVICE TECHNICIAN TRAINING

Evoqua service technicians go through a formal multi-tiered training program. This ensures reliable and consistent service performance across customer sites for peace of mind.

## We've Got You Covered

Evoqua's best-in-class service team is there when you need us, with the knowledge, expertise and resources to keep your operation running smoothly.

<sup>1</sup> United Parcel Service

<sup>2</sup> FedEx Corporation

## Digital Water Management

#### **WATER ONE® SERVICES**

The Water One® services platform is a revolutionary, outcome-based, digital water management solution which combines Evoqua's water expertise, proactive service, proven technology and data intelligence. This ensures your water treatment system is fully optimized by using technology to drive efficiency in operation and service.

Water One services provides a unique solution by combining key technologies with outcome-based water guarantees for reliable water quality and system performance.



Evoqua will monitor your water system 24/7/365 with real-time visibility and rapid response from our best-in-class service team

### Features & Benefits



#### WATER EXPERTISE

Evoqua water technologies is a global leader in water treatment with over 100 years of experience in water treatment technologies, applications and services.



# PROACTIVE SERVICE

Evoqua's highly trained professionals will proactively manage the operation and maintenance of your water system, with the latest digital tools and technology.



#### PROVEN TECHNOLOGY

Evoqua will provide the latest technology and equipment to meet your application challenges, with 24/7/365 remote monitoring of your water treatment system.



#### DATA INTELLIGENCE

Real-time data analytics for system optimization which include water quality, water use, system status and predictive maintenance.

### **UPW** Distribution Trailer

The ultrapure water (UPW) distribution trailer is a robust water treatment solution for short-term high purity water applications. This mobile solution can provide temporary makeup water to keep production running during equipment failure, replacement, or facility expansion. It also increases the speed to market for new facilities by providing high quality water for rinsing applications.

The UPW distribution trailer pairs with our 2-pass reverse osmosis (RO) trailer for full utilization. It meets industry standards for total organic carbon (TOC) destruction, continuous electrodeionization (CEDI), ion exchange resin, and ultrafiltration (UF). The UPW trailer treats water to 18 megaohm resistivity, with 10-30 ppb TOC, and a flow rate up to 50 gpm.







## Driving Sustainability

# OUR COMMITMENT TO TODAY AND TOMORROW

Evoqua is committed to helping the world be more sustainable through our solutions and in our operations. Sustainability is a core value at Evoqua that is driven by our culture and comes to life in our work:

- We transform water for our customers, communities, and the planet.
- We embrace inclusion and diversity as primary catalysts for innovation.
- We are stewards of environmental health through our actions and conduct

Our offerings are aligned with the United Nations Sustainable Development Goals (UNSDGs), allowing us to help our customers create a more sustainable future.









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