



WASTEWATER SERVICE  
DEIONIZATION (WWSDI)  
ION EXCHANGE SERVICES

## ABOUT

### ION EXCHANGE RESIN REGENERATION

Envirogen Technologies provides ion exchange resin regeneration services and equipment from our Memphis, Tennessee Service Facility, where we regenerate and process all types of ion exchange resins used in applications ranging from high purity/deionized water production to removal of heavy metals from waste streams. Our wastewater service deionization (WWSDI) services are structured and centrally managed to achieve maximum sustainability and recyclability.

As every application or specification can be different, Envirogen thoroughly evaluates each to recommend the most efficient process configuration to meet your needs. We provide complete system design, installation, and custom services that treat industrial water, process water, and wastewater contaminated with non-hazardous heavy metals – including zinc, copper, nickel, and chromium to low part per billion (ppb) levels.



## OFF-SITE RESIN REGENERATION

Ion exchange is a long-proven technology for the removal of inorganic contaminants. Off-site regeneration provides an efficient, economical way of meeting your environmental requirements, without the high costs of capital or purchasing new media each time. Maximizing each regeneration cycle is a science and a skill that requires a high level of expertise. Most operations do not have the time, the capabilities, or the experience to perform the task optimally. That's where Envirogen comes in.

Envirogen owns and operates an ion exchange regeneration facility with the technical expertise and equipment necessary to safely manage regeneration of exhausted resins while remaining environmentally compliant. Our team specializes in removing collected contaminants and restoring exhausted resin to its proper ionic form so it can be returned to service. WWSDI services also save valuable manufacturing space while minimizing your operational and maintenance requirements.

### BENEFITS TO YOU:

- Cost-effective
- Ensures environmental compliance
- No on-site waste treatment
- No hazardous chemicals stored or handled on your site
- No regenerant wastewater discharge
- Simple and sustainable way to supply pure water
- Reduces cost of make-up water for water reuse and recycling
- Scalable treatment - optimal for varying production rates
- Effective treatment option for clean-up of retention ponds, cooling loops or spills
- Space saving, service-based approach that integrates equipment and service option combinations
- Flexibility of short-term or long-term treatment needs



# MEETING YOUR EXACT REQUIREMENTS

Envirogen takes a solutions-based approach to WWSDI. Our team of regeneration experts discuss your application and your goals to understand your desired outcomes and give expert advice based on your exact application and system configuration. This includes an assessment of key factors including your on-site access and space limitations, available manpower, operational hours, flow rate, chemistry process, and your specific reuse or discharge quality requirements.

Our wastewater service deionization systems are flexible with your future needs. If your requirements change, we can simply switch the media types and/or tank size saving you significant capital expense.

### Markets Served:

- Aerospace
- Boiler and/or cooling tower blowdown
- Circuit board assembly and manufacturing
- Electro-discharge machining (EDM)
- General manufacturing
- Groundwater remediation
- Heating and cooling loops
- Magnetic/digital media production
- Microelectronics
- Parts washing
- Telecommunications
- Others

### Contaminants Removed:

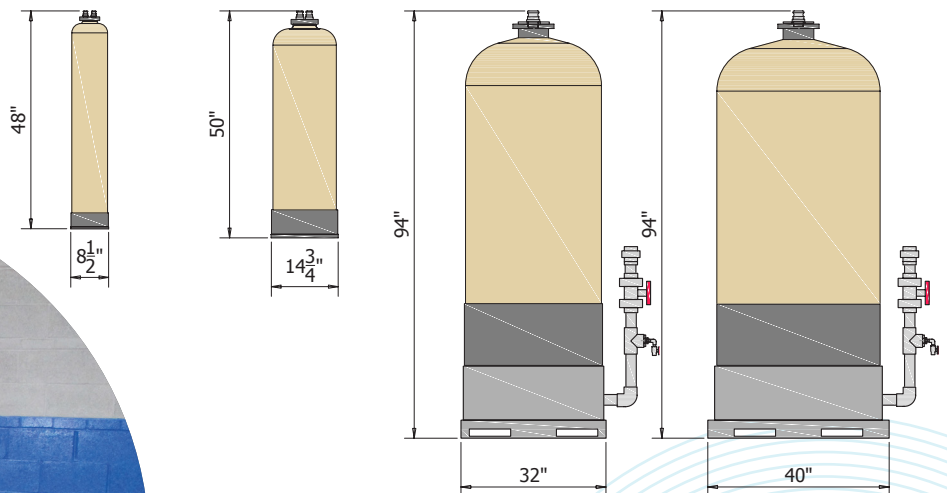
- Arsenic
- Cadmium
- Chloride
- Chromium
- Copper
- Lead
- Molybdenum
- Nickel
- Sodium
- Sulfate
- Zinc

Envirogen's wastewater service deionization utilizes ion exchange resins and other media selected to remove specific ionic contaminants from groundwater, industrial wastewater, and process water for discharge, reuse, or recycle.

Throughout the process your resin will be segregated from other customer resins to avoid any cross contamination. Properly sized vessels containing the selected resin or media will treat your water stream until the capacity is reached. Once exhausted, the WWSDI vessels are removed from service and fresh vessels are installed and placed in service. The exhausted vessels are returned to Envirogen's regeneration facility where the contaminants are removed from the media/resin for proper disposal.

		A	B	C	D
RESIN CAPACITY	Cubic Feet	1.20	3.50	20	30
FLOW RATE	Min-Max	1-3	2-10	10-50	25-75
DIMENSIONS	Base/Height	8"dia./48"	14"dia./50"	30"dia./94"	36"dia./94"

Envirogen WWSDI systems handle a variety of non-hazardous industrial water treatment needs. We are not a permitted TSDF and do not treat hazardous wastes (e.g., F006, other listed, or characteristic hazardous wastes).



## ABOUT

### ENVIROGEN TECHNOLOGIES

Envirogen Technologies is a leading international provider of water and wastewater treatment solutions. We solve complex challenges relating to water availability and quality, and help our customers to increase productivity, reduce costs and meet environmental and sustainability targets.

We do this through offering:

- Best in class water and wastewater treatment and process filtration technology
- Expertise in design, project management and engineering
- World class manufacturing and servicing capability



### NORTH AMERICAN HEADQUARTERS

Envirogen Technologies  
2627 Chestnut Ridge Road, Suite 200  
Kingwood, TX 7733  
T: 713.979.9142  
E: [info@envirogen.com](mailto:info@envirogen.com)

### UK HEADQUARTERS

Envirogen Group  
Unit 9, Wimsey Way, Alfreton Trading Estate  
Alfreton, Derbyshire, DE55 4LS  
T: +44 (0) 1773 441029  
E: [enquiries@envirogengroup.com](mailto:enquiries@envirogengroup.com)

### EUROPEAN HEADQUARTERS

Envirogen Technologies bv  
Penningweg 71, 1507 DG Zaandam, The Netherlands  
T: +31 75 204 7200  
E: [NLinfo@envirogengroup.com](mailto:NLinfo@envirogengroup.com)

We have a network of regional sales and service teams worldwide:

**USA:** Texas, Tennessee, New Jersey, California, Nevada.

**UK and Europe:** UK, The Netherlands, Germany, France, Italy.

For further details, visit our website or contact our main office locations above.

[www.envirogen.com](http://www.envirogen.com)

Follow **Envirogen Technologies** on [LinkedIn](#) 