

# Electrodeionization (RO-EDI) Water Treatment Systems

*High Purity Water – When and Where You Need It*

Electronics • Pharmaceutical • Food & Bev



## Electrodeionization (RO-EDI)

Unlike traditional mixed-bed ion exchange systems that require hazardous chemical regeneration, Electrodeionization (EDI) offers a chemical-free alternative by using ion exchange resins, electrically active membranes, and a DC electrical field to polish reverse osmosis (RO) permeate into ultra-pure water. The EDI skid continuously removes dissolved salts and other charged contaminants, without chemicals, delivering ultrapure water directly to your process.

Our rental EDI skids are designed for quick deployment and continuous operation, making them ideal for short-term projects, planned maintenance, or emergency backup—delivering reliable, consistent performance without the need for chemicals.

## Benefits



### Low Operating Costs

Reduced consumables, disposal, and labor



### Environmentally Friendly

No hazardous chemical storage or waste



### Compact System Footprint

Compact footprint for space-sensitive sites



### Consistent Water Quality

Resistivity often >15 MΩ-cm



### Continuous Process

No shutdowns or downtime for system regeneration



### Plug-and-Play Ready

Designed for rapid deployment and installation

## Applications

### Food & Beverage

- Ingredient water for beverages and brewing
- Boiler feedwater for process steam
- Clean-in-place (CIP) and final rinse
- Packaging and equipment rinse water

### General Industry & Temporary Needs

- Backup ultrapure supply during maintenance or commissioning
- Pilot projects and seasonal demand

### Microelectronics / Semiconductor

- Ultrapure rinse water for chip manufacturing
- Electronics component cleaning

### Pharmaceutical & Biotechnology

- USP/EP grade water systems
- Bioprocessing and formulation water

### Power Generation

- Boiler feedwater polishing
- Temporary ultrapure water during outages or maintenance

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ALS-1004A (11/25)

# General Specifications

Parameter	Specification
Flow Range	10 GPM
Product Water Resistivity	12-18 MΩ
Recovery Rate	Up to 70% (may change based on testing)
Power Requirement	480V, 11Amps FLA, 60HZ
Dimensions (L · W · H)	L= 61", W= 29", H= 61
Weight	644 lb
Connection Sizes	Inlet= 1" SCH 80 PVC, Outlet = ¾" SCH 80 PVC, Reject = ¾" SCH 80 PVC

## RO-EDI vs SDI: Key Differences at a Glance

Feature	RO-EDI	SDI
Regeneration	Continuous, chemical-free using DC electricity	Off-site chemical regeneration by service provider
Water Quality	Consistent ultrapure water (0.055–0.5 μS/cm; 18.2–2 MΩ·cm)	High purity (0.1–1 μS/cm); may fluctuate as resin nears exhaustion
Operation Mode	Continuous, fully automated	Batch-type; tanks swapped when resin is exhausted
Operating Costs	Higher upfront investment; moderate operating cost (electricity)	Low upfront cost; ongoing service fees based on usage and tank replacement
Best Applications	Continuous ultrapure water for pharma, electronics, power, labs	Smaller facilities, intermittent use, or where capital investment is undesirable

## Rental Options

- Short- or long-term rental available
- Delivery and startup services available
- Service and maintenance included with rental



RO-EDI built for the automotive market