

# Electro-Deionization Systems

## Moderate to Large Size Systems

**EDI**  
SERIES

EDI removes ions from aqueous streams, typically in conjunction with reverse osmosis (RO) and other purification devices. Our high-quality modules continually produce ultrapure water up to 18 M $\Omega$ -cm. The typical application is polishing after a reverse osmosis system which replaces mixed bed DI and the associated hazardous chemicals used for resin regeneration.

### Standard Features

- Small, compact modules (light weight)
- 220V or 460V/3ph/60Hz power requirement
- Produces water up to 18 M $\Omega$ -cm
- Easy and limited maintenance
- No chemicals required
- Control unit with monitoring capability
- Simple systems: no concentrate recirculation

### Benefits of EDI

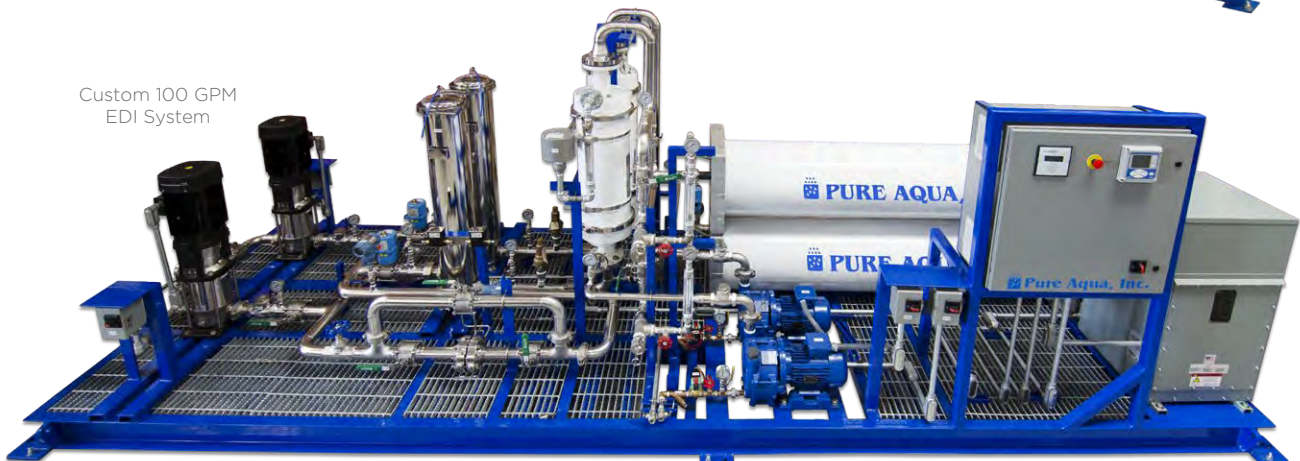
- Consistent water quality
- Continuous operation
- No regeneration chemicals
- No hazardous waste
- Reduces facility workmanship
- Simple operation (no DI resin changes)
- Modular system more flexible, easy to expand
- Multiple module less risky than one large stack
- Dial in product water quality (by controlling Amps)
- Modules compact-smaller system footprint
- No leaking- proven module design
- Safer-lower voltages

Custom Twin  
50 GPM  
EDI System



EDI-5  
Standard System

Custom 100 GPM  
EDI System



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**SERIES**

The need to satisfy the increasing demand for high purity water can be achieved using Electro-Deionization (EDI) equipment. The EDI process replaces conventional DI mixed resin beds to produce deionized water.

Unlike DI resin, EDI does not require shutdowns for replacing resin beds or for resin regeneration using chemicals. As a result EDI minimizes water quality upsets and operating costs.

EDI has become the solution to many applications, it has lower operating expenses and fewer maintenance requirements making EDI the cost effective solution over mixed bed or dual-bed polishing.

Pure Aqua supplies a full line of standard and fully customizable Electro-Deionization systems, all of which are engineered using advanced 3D computer modeling and process design software for accurate and customized solutions.

In systems that produce more than 60 GPM, we can design and supply EDI systems using jumbo modules to save space and minimize foot print.

### Applications

- 💧 USP purified water
- 💧 Laboratory water
- 💧 Portable exchange EDI
- 💧 Power generation
- 💧 Cosmetics
- 💧 Electronics



500 GPD  
RO/ EDI System

Model #	Flow Rate (GPM)				Voltage (DC)		Current (Amps)	
	Product		Concentrate	Electrolyte	Typical Operation	Maximum	Typical (4 ppm RO Feed)	Maximum (15 ppm RO Feed)
	Average	Peak						
EDI-1	7.5	10	0.75	0.075	250-300	400	3	8
EDI-2	15	20	1.50	0.150	250-300	400	6	16
EDI-3	22.5	30	2.25	0.225	250-300	400	9	24
EDI-4	30	40	3.00	0.300	250-300	400	12	32
EDI-5	37.5	50	3.75	0.375	250-300	400	15	40
EDI-6	45	60	4.50	0.450	250-300	400	18	48
EDI-7	52.5	70	5.25	0.525	250-300	400	18	48
EDI-8	60	80	6.00	0.600	250-300	400	18	48

Pure Aqua also supplies: Custom Engineered Solutions, Multimedia Pretreatment, Activated Carbon Pretreatment, Water Conditioning, Chemical Dosing Systems, Ultraviolet (UV) Sterilizers and Ozonation Systems.

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