



EDI (Electrodeionization) EDI-K Series 30 to 150 GPM

Industrial Water Purification

EDI (Electrodeionization) is the chemical-free alternative to in-plant regenerated deionizers for removing dissolved solids from RO product water. EDI is both safer and more user friendly than chemically regenerated deionizers that require the storage and handling of hazardous regeneration chemicals such as sulfuric acid and caustic soda.

EDI product water quality normally runs 16 to 17.5 megohms. If a water quality of 18.3 megohms is required, and high purity service mixed bed deionizer are needed, throughputs of up to 500,000 gallons per cubic foot of resin can be achieved before an exchange is required. This makes the use of portable exchange deionizers with off-site regeneration very attractive.

EDI

EDI is a continuous water purification process where a DC voltage is applied across a stationary ion exchange mixed resin bed. The charged (+/-) ionized impurities in the feed water are captured by the ion exchange resin, then migrate across the resin bed through ion-specific membranes in the direction of the cathode (+) or anode (-). A second set of ion-specific membranes traps the ionized impurities in a waste stream.



EDI-K-86-MG

Reverse Osmosis (RO) Product Water Polishing - By combining reverse osmosis (RO) with electrodeionization (EDI), a high purity industrial process water can be obtained without the chemicals required by conventional ion-exchange technology. With RO/EDI systems, membranes and electricity replace all the chemicals and much of the regeneration wastewater.

ADVANTAGES



EDI XL-500 Cell

- An EDI unit replaces chemically regenerated deionizers after RO units, eliminating regeneration steps and associated labor.
- EDI units are mechanically simple when compared to typical regenerable ion exchange systems. Membranes and electricity replace chemicals and frequent regenerations.
- Unlike chemical deionizers, EDI units operate continuously, 24/7 with no halts for deionizer regeneration.
- EDI eliminates the need for rigorous safety, security and handling protocols required for hazardous acid and caustic deionizer regenerant handling and storage.
- EDI eliminates chemical deionizer wastewater neutralization and the associated excesses of salts to drain.
- Reduces employer liability.

FEATURES

Standard Features:

- Electropure XL-500 Cells. Brine is never needed to produce high quality water.
- Magna-Power 400 VDC rectifier with pressure and flow safety interlocks protect EDI cells.
- All plumbing, feed, product and sensor connection are solvent welded Schedule 80 PVC. Other plumbing materials are optional.
- Liquid filled SS pressure gauges.
- Digital conductivity monitors for monitoring inlet and outlet water quality.
- Individual cell product, waste and electrolyte Rotameters for flow monitoring w/control valves, pressure gauges, and sample ports.
- White powder coated carbon steel frame. Welded stainless steel skids are available as an option.
- White epoxy control panel.

Options:

- PLC Control, Programmed for intuitive operation/w/ Ethernet connection.
- Touch screen control
- Visual, back-lit Electrolyte monitoring panel.
- Signet - stainless steel turbine flow, temperature and pressure sensors.
- Concentrate loop with conductivity and flow sensors.
- Feed, product and sensor connection are available in butt and socket fusion welded polypro, PVDF or LXT.
- TriClover style Sanitary Connections.
- Liquid filled stainless steel pressure gauges w/gauge guards.

FLOW RATES AND SPECIFICATIONS

Model	Product GPD	Flow Rates (GPM)			Pipe Size	KWH (Typ.)	Dimensions			Shipping Weight
		Prod.	Conc.	Elect.			H	W	D	
EDI-K 43 MG	43,200	30	3.0	0.30	1 1/2"	7	60"	60"	42"	900
EDI-K 54 MG	54,000	38	3.8	0.38	1 1/2"	9	55"	76"	42"	1088
EDI-K 65 MG	64,800	45	4.5	0.45	2"	10	55"	90"	42"	1275
EDI-K 86 MG	86,400	60	6.0	0.60	2"	14	55"	122"	42"	1650
EDI-K 108 MG	108,000	75	7.5	0.75	2"	18	55"	182"	47"	2025
EDI-K 130 MG	129,600	90	9.0	0.90	3"	21	84"	120"	50"	2400
EDI-K 173 MG	172,800	120	12.0	1.20	3"	28	84"	152"	50"	3150
EDI-K 216 MG	216,000	150	15.0	1.50	3"	36	84"	212"	56"	3900

EDI Feed Water Requirements:

RO feed quality: 15 ppm or better
 Water Hardness: 0.1 ppm
 Iron (Fe+++): 0.05 ppm
 Free Chlorine/Chloramine: 0.01 ppm

Maximum inlet pressure: 50 psi
 Maximum inlet temperature: 90°F
 NOTE: Silica and carbonate content in the feed water dictate the quality of the water produced

Note: EDI technological advancements may be transferred to this product line at any time. As a result, dimensions and specifications are subject to change without notice. Please contact Cal Water prior to finalizing any system design or placing an order.

Warranty: Cal Water guarantees labor and material for 1 year from the date of an installation. In case of defect in equipment, labor, material or service, Cal-Water's sole responsibility is for the replacement or repair of the defect and cannot be held liable for losses of any kind. (Please see Terms and Conditions of sale.)

Cal-Water has been selling, installing and servicing water purification equipment since **1946**

Cal Water, 1961 Petra Lane, Placentia, CA 92870
(800) CAL-WATER (800) 225-9283
 FAX: (714) 792-0794
www.cal-water.com/

Orange County (714) 835-7878
 Los Angeles County (323) 663-8335
 San Diego County (858) 457-8411