

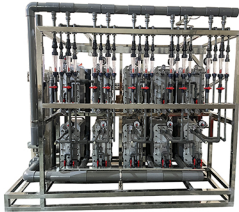


**General Description:**

Electrodeionization (EDI) is a continuous, chemical-free process of removing ionized and ionizable species from feedwater using DC power to provide ultrapure water for the pharmaceutical and biotechnology industries. EDI is typically used to polish reverse osmosis (RO) permeate at recovery rate above 50%, the EDI permeate Resistivity can be around 17.52 Ω (mega), and is a smart alternative to — and effective replacement of — conventional mixed bed ion exchange (IX).



**Electrodeionization (EDI) Stacks and EDI System for Ultrapure Water**



**Typical Applications**

The product water from EDI in applications such as:

- \* Water for injection
- \* Pharmaceutical purified water
- \* Laboratory purified water systems
- \* Biotechnology industries

\* electronic conductor industries and so on

For ease of design and additional confidence in your EDI Application, we offer quality assurance and performance guarantees.

| Feed Water Specifications                       | EDI Permeate Water Quality  |
|---|-----------------------------|
| Total Exchange Anion (TA as CaCO <sub>3</sub> ) | <15mg/L                     |
| Conductivity Equivalent                         | <1μS/cm                     |
| Temperature                                     | 5—45 degree                 |
| Total Hardness (as CaCO <sub>3</sub> )          | <10mg/L                     |
| Silica (SiO <sub>2</sub> )                      | <10mg/L                     |
| Total Organic carbon (TOC as C)                 | <0.5mg/L                    |
| Total Chlorine                                  | <0.02mg/L                   |
| Fe, Mn, H2S                                     | <0.01mg/L                   |
| Boron   | <0.1mg/L                    |
| PH  | 5—10                        |
| Oil and Grease                                  | Non-detectable              |
| Particulate                                     | 2 stages RO Permeate better |
| Conditioning Agents                             | Non-detectable              |
| Color   | <1.0NTU                     |

| EDI Permeate Water Quality  |              |
|-----------------------------|--------------|
| Resistivity                 | >18MΩ·cm     |
| Sodium                      | <10μg/L      |
| Silica (SiO <sub>2</sub> )  | <10μg/L      |
| Sulfate removal efficiency  | >98% removal |
| Hardness removal efficiency | >99% removal |

| Operation Parameters            |           |
|---------------------------------|-----------|
| Resistivity                     | 18MΩ·cm   |
| Voltage                         | 50-100VDC |
| Amperage                        | 5-1.20V   |
| Use Pressure                    | 1-4.5bar  |
| Pressure Drop                   | 1.5—3bar  |
| Maximum Sanitation temperature  | 60 degree |
| Maximum Sanitation Use Pressure | 2.1 bar   |

**EDI Stacks Specification**

| Type                                  | HND-500L      | HND-1000L     | HND-3000L     | HND-5000L     |
|---------------------------------------|---------------|---------------|---------------|---------------|
| Nominal flow rate (m <sup>3</sup> /h) | 0.5           | 1.0           | 3.0           | 1.5           |
| Recovery rates (%)                    | 75-85         | 85-95         | 90-95         | 90-95         |
| Resistivity (MΩ·cm)                   | ≥15           | ≥15           | ≥15           | ≥15           |
| Working voltage Range (VDC)           | 18-50         | 25-70         | 50-150        | 70—250        |
| Working current (ADC)                 | 2.5—3.2       | 2.5—3.2       | 2.5—3.2       | 2.5—3.2       |
| Workane Pressure (MPa)                | 0.15-0.4      | 0.15-0.4      | 0.15-0.4      | 0.15-0.4      |
| Maximum pressure (MPa)                | 0.4           | 0.4           | 0.4           | 0.4           |
| Clean Water Input Output Port         | DN25          | DN25          | DN25          | DN25          |
| Concentrated input/ Outlet Port       | DN20          | DN20          | DN20          | DN20          |
| Dimensions (Width x height x depth)   | 315x685x145mm | 315x685x209mm | 315x685x377mm | 315x685x515mm |
| Shipping weight                       | 50kgs         | 63kgs         | 90kgs         | 134kgs        |



Hinada the leading manufacturer of EDI Stacks and EDI System for high purity water according to project requirement.



**10m3/Hour EDI System treatment process**

