

 **ION EXCHANGE**  
*Refreshing the Planet*

**LAB-Q**  
**SPECTRA**

**INSTANT PURE AND  
ULTRA PURE WATER**  
FOR MULTIPLE LAB APPLICATIONS



Ranges of Lab Water Purification System Type I, II & III equipped with latest features

# PURE AND ULTRA PURE WATER FOR LABS

Ion Exchange is a pioneer of water treatment in India with a legacy spanning almost six decades. With sales, production and service footprints across the world, Ion Exchange is a premier company in total water and environment management. Our comprehensive technologies, products and services, enable our multidisciplinary teams of experts to cater not just to industries and municipalities but also to communities, institutions and homes.

Backed by state-of-the-art application laboratory, R&D centre, customer support service centers, and ISO certified manufacturing facilities we offer a wide range of technologies, processes and products that only a few companies in the world can provide.

Our close association with the pharmaceutical industry along with our technological expertise and R&D capabilities has enabled us to develop customized solutions to meet the industry's stringent requirement for high purity water treatment and distribution.

We introduce to you our INDION LAB-Q series of products which provide high purity water for multiple laboratory applications!

## OUR STRENGTHS ARE



Expertise in  
Water  
Treatment



In House Manufacturing  
Purification  
Consumables like  
Membranes and Resins



Wide  
Service  
Network

Lab Q range of products are developed in house by our R&D team which has more than 90% of components sourced from within India.

LAB-Q SPECTRA

LAB-Q ULTRA



## Advanced Lab Water System

Lab-Q Spectra integrates multiple purification technologies to deliver pure and ultrapure water for various laboratory applications.

With its advanced monitoring & control scientist are assured of a consistent and continuous supply of laboratory-grade water.

Auto diagnostic feature helps customer to get prompt & timely service. It also estimates the efficiency of purification pack & records the daily usage.



## UNIQUE FEATURES

### INTEGRATED UNIT

Delivers Type 2 & Type 1 water from a single unit

**Benefits:**

Save cost on service  
Save space

Tap to ultra pure

**Benefits:**

Total water solution

### INTERACTIVE USER INTERFACE

Advanced touch screen display

**Benefits:**

Helps in easy menu navigation, data viewing, system control and action

### SMART MONITORING

Continuous monitoring of water quality at different stages

**Benefits:**

Monitors the performance of purification packs  
Avoids breakdown  
Estimate cost of operation

### AUTOMATION

Enables display and record of alarms

**Benefits:**

To ensure proper control & maintenance of the equipment.

### ESS

Auto Sanitization

**Benefits:**

No chemical cleaning needed

### ON SITE VALIDATION

Meets good laboratory practices

**Benefits:**

Compliance to national and international norms

### INSITU WATER BASED SANITIZATION

Avoids down time

**Benefits:**

Uninterrupted water supply

### AUTO SANITIZATION MODULE

Periodic UV illumination

**Benefits:**

Maintains purity of the stored water in the tank

### INNOVATIVE DISPENSING OPTIONS

Multiple dispensing options like remote, continus, volumetric or hands free

**Benefits:**

Flexibility to meet the user need

### PATENTED CO<sub>2</sub> REMOVAL PROCESS

Enhances life of purification cartridges & addresses varied field conditions

## With Electro De Ionization (EDI ) Module

Lab Q Ultra EDI produces Type I and Type II pure water, which has very low total organic carbon (TOC) content, meeting the requirements of liquid chromatography and all spectroscopy methods, besides microbiological and molecular biology applications. It also meets ISO 3696, Type I standard.

Dispensing of ultra pure water is configured on the front panel whereas pure water is dispenses from the storage tank.



## UNIQUE FEATURES

### TEN STEP PURIFICATION PROCESS

Self generating EDI based

### AUTOMATIC FLUSH DEVICE (AFD)

Ensures periodic cleaning of the system

### ONLINE RESISTIVITY MONITORING

For product water quality

### INTEGRATED UV SANITIZATION

UV module for reservoir

### DRY RUN PROTECTION

With feed pressure switch

### ESS

In built electrolytic auto sanitizer avoids chemical sanitization

### 30 & 60 LITER RESERVOIR

With air vent filter

### EASY DISPENSING

With one touch user interface

## ELECTROPURE EDI BENEFITS

### THIN-CELL TECHNOLOGY

Allows quality and higher efficiency

### THIN-CONCENTRATE TECHNOLOGY

This design keeps the membrane surface clean and prevents fouling and scaling

### NON-FOULING ELECTRODE TECHNOLOGY

A proprietary design prevents scaling in the electrodes. It also uses a special anode technology to limit the production of chlorine, which lengthens the life of the EDI module.

## PURIFICATION PROCESS

- Depth Filtration
- Activated Carbon
- CO2 Removal
- Electrostatic Sanitization
- Reverse Osmosis
- Electro De Ionization (optional)
- 254 nm UV
- 185 & 254 nm UV
- Automatic Sanitization
- Deionization
- Ultra Filtration
- ACF, Soda lime based Air Vent

## Delivers ASTM Type 2 & Type 1 Water

Keeping in mind the requirement of laboratories across various industries, Lab-Q Ultra delivers different grades of water for routine and critical lab applications.

Compact & ergonomic design saves laboratory table space and gels well with lab environment.

Automatic sanitization module, ESS, Insite sanitization & periodic recirculation eliminate the need for chemical sanitization and shut down.



## UNIQUE FEATURES

### ONLINE RESISTIVITY METRE

Displays product water quality for continuous monitoring

### AUTOMATIC FLUSH DEVICE (AFD)

Ensures periodic cleaning of the system

### INTEGRATED RECIRCULATION SYSTEM

Ensures consistent quality of water and reduces TOC to low levels (2-5 ppb)

### DRY RUN PROTECTION

ensures protection of the pump when the inlet water is unavailable

### INSTANT WATER DISPENSING

With single touch user interface

### 30 & 60 LITER CAPACITY

Meets variable volumetric requirement

### ASM MODULE AIR VENT FILTER

A built-in UV, protective air filter filter and high grade tank material ensures sustained purity while in storage

### OPTIONAL FLEXIBLE DISPENSING

Remote water dispenser offers dispensing at various angles & height

### ELECTROLYTIC AUTO SANITISER

Ensures periodic sanitisation of upstream purifying filters

All our Lab-Q range of product can be validated at the site by our certificated service engineers



## TECHNICAL SPECIFICATIONS

Lab-Q Range of Products comply with ASTM, ISO, NCCLS and US Pharmacopeia Water Quality Standards

	LAB-Q SPECTRA	LAB-Q ULTRA (EDI)	LAB-Q ULTRA
<b>FEED WATER SPECIFICATIONS</b>			
TDS	500 ppm max.	500 ppm max.	500 ppm max.
Fe, Mn	NIL	NIL	NIL
Free Chlorine	NIL	NIL	NIL
Silica	< 20 ppm	< 20 ppm	< 20 ppm
Inlet Pressure	0.1-2.0 Kg/cm <sup>2</sup>	0.1-2.0 Kg/cm <sup>2</sup>	0.1-2.0 Kg/cm <sup>2</sup>
<b>PRODUCT DIMENSIONS</b>			
Unit Dimensions (WxHxD)mm	630x280x590	450x250x500	450x250x500
30/60 Ltr Storage Tank Dimensions	380x380x885	300x250x500	300x250x500
Weight	20 Kgs	15 Kgs	15 Kgs
Power Requirement	230V AC ± 10%	230V AC ± 10%	230V AC ± 10%
Power Consumption	80 Watts	80 Watts	80 Watts
Alkalinity / Hardness	200 ppm max	200 ppm max	200 ppm max

<b>PERFORMANCE PARAMETERS</b>		
	ASTM TYPE 2 WATER	ASTM TYPE 1 WATER
Flow Rate	10 LPH	1 - 1.5 l/min
Conductivity	< 0.1 µS/cm	0.054 µS/cm
Resistivity	10 MΩ.cm	18.2 MΩ.cm
Total Organic Level (TOC)	< 30 ppb	< 5 ppb*
Endotoxin Level	NA	< 0.25 Eu/ml
Particle > 0.22 µm	NA	< 1 per ml
Bacteria	NA	< 0.1 cfu/ml
Dnase/Rnase	NA	Nil

<b>APPLICATION GUIDE</b>		
ASTM Type 2/3	ASTM TYPE 2 WATER	ASTM TYPE 1 WATER
Lab Ware Rinsing	Buffers & pH solutions	HPLC mobile phase preparation
Autoclave	Microbiological culture media preparation	Blanks and sample dilution in GC, HPLC, AA or ICP-MS
Water Bath	Dissolution & dilution media preparation	Buffer & culture media preparation of cell culture
Cooling /Heat Exchange	In place of USP grade purified water	Reagent preparation for molecular biology applications
Feed For Type 1 Unit	Feed for Type 1 unit	-
Alternate to Distilled Water	Alternate to double distilled water	-

\* TOC values achieved with feed water of less than 50 ppb.

To the best of our knowledge the information contained in this publication is accurate. Ion Exchange (India) Ltd. maintains a policy of continuous development and reserves the right to amend the information given herein without notice. Please contact our regional / branch offices for current product specifications.

**INDION** is the registered trademark of Ion Exchange (India) Ltd.



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