LAB-Q SPECTRA

INSTANT PURE & ULTRAPURE WATER FOR MULTIPLE LABORATORY APPLCIATION

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Refreshing the Planet

Importance of Water

Water due to its properties is the most commonly used reagent in the laboratories. The quality of water used in the lab not only effects the performance of test equipment's but also the test results, hence water is quality is of prime importance in a laboratory environment.

Contaminates in Water

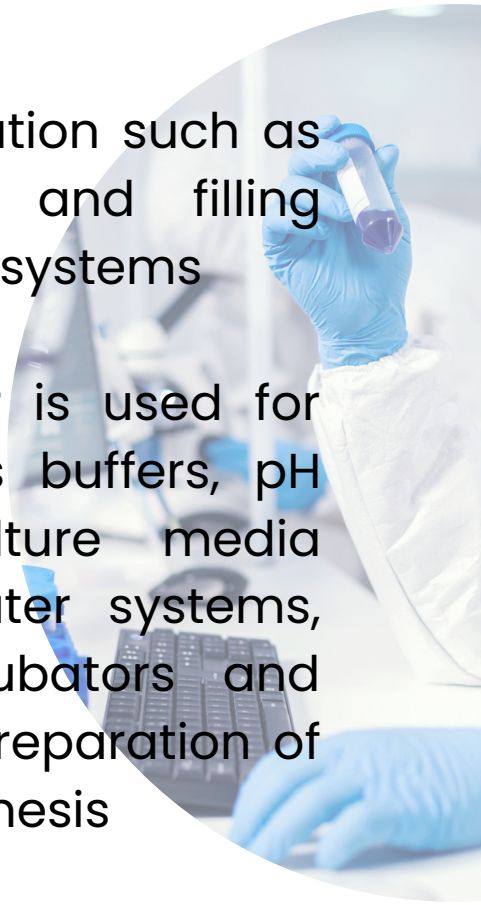
This can be classified as Physical, Biological and Chemical which is further divided into Organic & Inorganic. Every contaminant will have a different impact on the lab experiments which is why water for the laboratory use has to be free from any impurities.

Purification Technologies

There is no single purification technology that will remove all the impurities. Effective purification of water involves integration of various purification technologies that will eliminate specific contaminants.

Lab Water Application

Water used in the lab is defined as Type 3 Type 2 or Type 1 base on the critically of the experiment and sensitivity of the application.



Type 3 often used for routine application such as glassware rinsing, heating baths and filling autoclaves, or to feed Type 1 lab water systems

Type 2 or the reagent grade water is used for general lab application such as as buffers, pH solutions and microbiological culture media preparation; as feed to Type 1 water systems, clinical analyzers, cell culture incubators and weathering test chambers; and for preparation of reagents for chemical analysis or synthesis

Type 1 is required for critical applications such as HPLC mobile phase, blanks & sample dilution in GC, HPLC, AA, LCMS, ICP-MS and other advanced Molecular techniques.

Integrated System

Lab Q Spectra is designed to meet these critical aspects of an advance lab while delivering pure and ultra pure water for routine and critical laboratory application.

Lab Q Spectra integrates various technologies like Depth filtration, Activated carbon, CO2 removal, Reverses osmosis, De-ionization, Ultraviolet, Ultra filtration & Absolute filtration to remove various contaminants like particulate, organic, inorganic , microbial and gases

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Advanced User Interface

Lab Q Spectra has the advanced **interactive touch screen** based user interface that ensure easy navigation, data viewing, control and action

Smart control & sensor are in place for continues monitoring of water quality at different stages, performance of purification packs & storing critical system function thus ensuring uninterrupted and consistent laboratory water.

In built memory stores & retrieves error codes, consumables efficiency and other important system functions for **auto diagnosis** & preventative action.

RESIN TECHNOLOGY

RO TECHNOLOGY

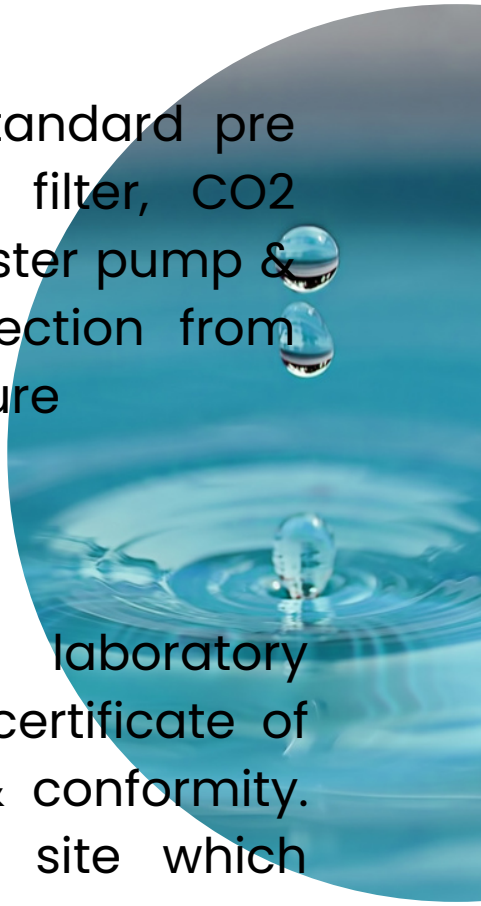
UV TECHNOLOGY

Innovative Dispensing

Lab Q Spectra has multiple dispensing options like continues, volumetric, remote and hands free operation for more productive lab environment

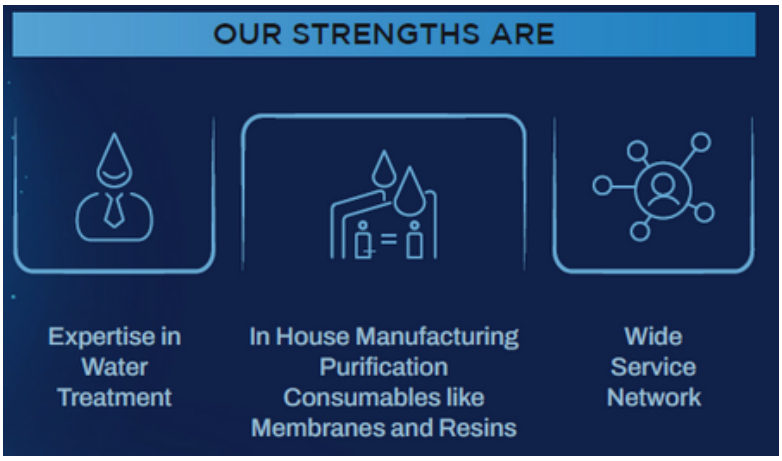
Standard Pre-treatment

Lab Q Spectra come with the a standard pre treatment that consists of depth filter, CO2 removal filter, activated carbon, booster pump & auto cutoff sensor to ensure protection from varying feed water quality and pressure



Quality & Compliance

Lab Q Spectra comply to good laboratory practices. All the units comes with certificate of compliance, certificate of quality & conformity. These units can be validated on site which includes IQ OQ & guidelines for PQ



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Auto Sanitization

Lab Q Spectra has the patented ESS, Insitu & Automatic Sanitization module as a standard hence **eliminates** the need of **chemical sanitization**

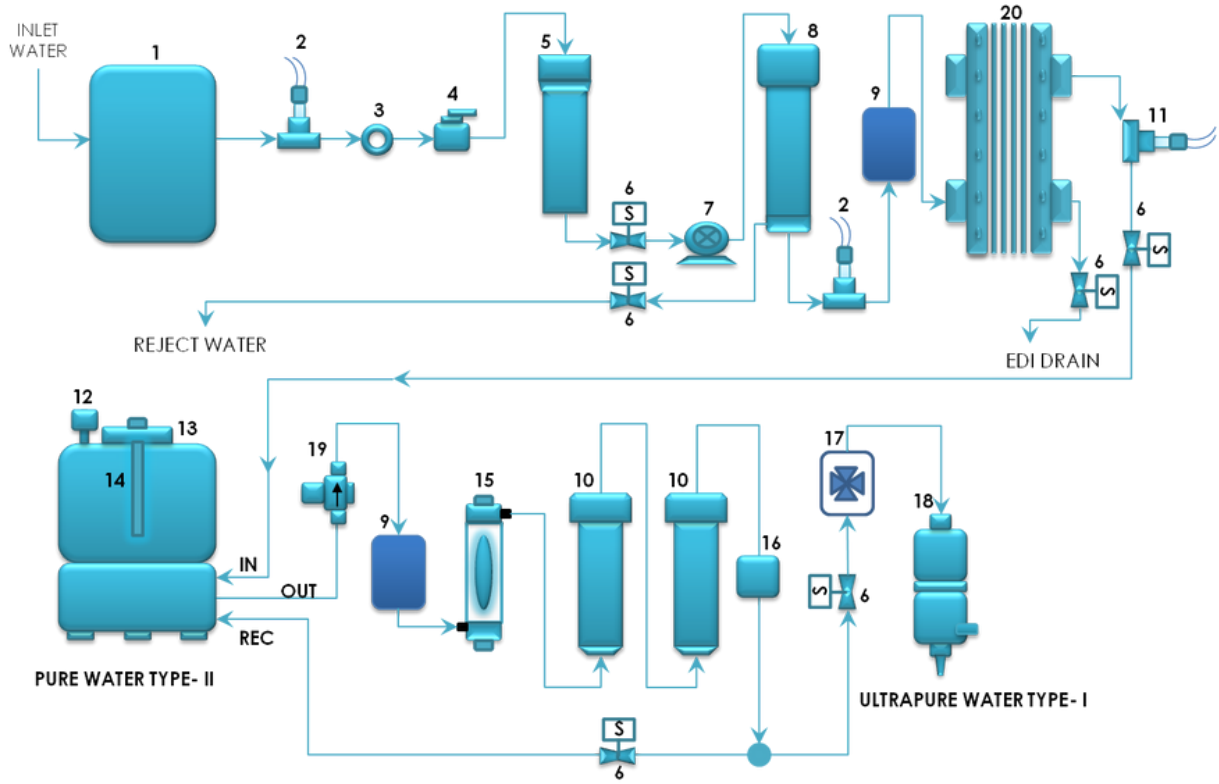
Type 2 water storage has two options 30L & 60L. The reservoir is made of food grade PE with conical bottom , air tight wide lid, with multilayer air vent, level sensor & **Automatic Sanitization Module**

NO HARSH CHEMICAL

Just Say Yes to

LAB-Q SPECTRA

Lab Q Spectra Flow Diagram



ASTM Type 2 & Type 1 EDI based Lab Water

1 -LAB-Q PRE-TREAT
2 -TDS SENSOR (FEED & RO)
3 -ACTIVE SILVER
4 -PRESSURE SWITCH
5 -LAB-Q CLEAR
6 -SOLENOID VALVE
7 -BOOSTER PUMP
8 -RO MEMBRANE
9 -E-SAN CELL
10-LAB-Q SUPER
11-TYPE-2 CONDUCTIVITY SENSOR
12-TANK AIR FILTER
13-STORAGE TANK 30L
14-TANK UV LAMP
15-UV-18 LAMP
16 – RESISTIVITY SENSOR
17 – FLOW SENSOR
18-POU DISP. UF FILTER
19-PRV
20- EDI MODULE

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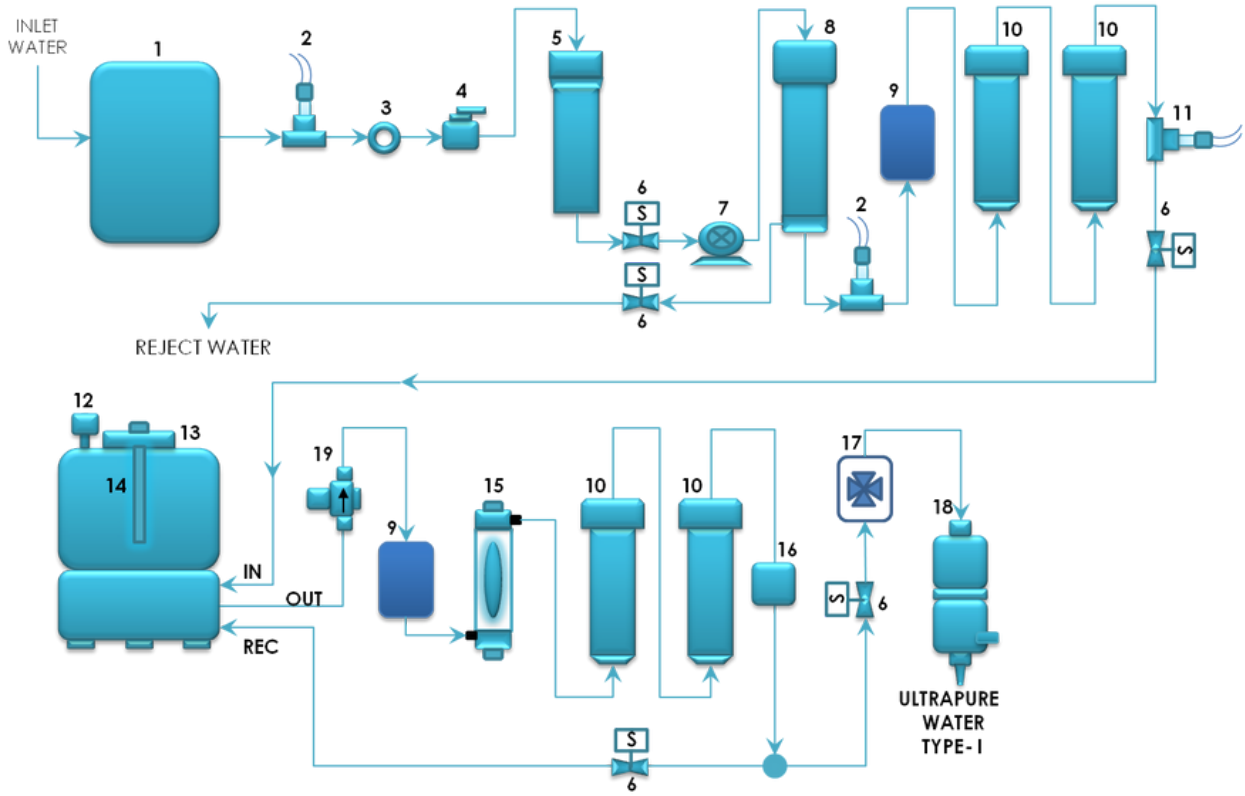

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Lab Q Spectra Specifications

Lab Q range of products comply with ASTM, ISO, NCCLS and US Pharmacopeia Water Quality Standards

FEED WATER SPECIFICATIONS	
TDS	500 ppm max.
Fe, Mn	NIL
Free Chlorine	NIL
Silica	< 20 ppm
Inlet Pressure	0.1-2.0 Kg/cm²
PRODUCT DIMENSIONS	
Unit Dimensions (WxHxD)mm	630x280x590
30/60 Ltr Storage Tank Dimensions	380x380x885
Weight	20 Kgs
Power Requirement	230V AC ± 10%
Power Consumption	80 Watts
Alkalinity / Hardness	200 ppm max

With expertise in water treatment for more than 55 years we can give customized pre treatment based on feed water quality

PERFORMANCE PARAMETERS		
	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

APPLICATION GUIDE		
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.

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