



Advance Biotech Solutions India Pvt. Ltd.

(Advance Technologies, Effective Solutions)



(An ISO 9001:2015 Certified Company)



ULTRA PURE SMART

ALL TYPE OF WATER SOLUTION FOR LAB

ABSIPL PROVIDES A BEST SOLUTIONS FOR LAB. MANY LABORATORIES REQUIRE ULTRAPURE/PURE WATER EVERY DAY. WE UNDERSTAND HOW IMPORTANT IT IS FOR SCIENTISTS TO OBTAIN A CHOICE OF WATER QUALITIES THAT RANGE FROM PRIMARY GRADE, FOR SIMPLE ROUTINE WASHING AND RINSING, TO ULTRAPURE FOR THE MOST CRITICAL SCIENCE AND ANALYTICAL APPLICATIONS.

MULTIPLE TECHNOLOGIES INTO A SYSTEM

- *A COMPREHENSIVE SEQUENCE OF WATER PURIFICATION PROCESS*
- *A RANGE OF CARTRIDGES EXISTS TO REMOVE SPECIFIC TYPES OF CONTAMINANTS*

OPTIMAL FOR WATER QUALITY GUARANTEE

- *RESISTIVITY MONITORING FOR HIGH-PRECISION MEASUREMENT OF IONIC CONCENTRATION*
- *TOC MONITORING FOR PREVENTION OF ORGANIC BREAKTHROUGH*



TECHNICAL PROCESSES AND FEATURES

Water purification is often a complex process that incorporates multiple technologies into a single purification system

PRETREATMENT CARTRIDGE

- Compression molding process prevents water leakage risk from your safety
- Column is filled with active carbon integrally removing free chlorine in tap water
- PP cotton removes particles, effectively guarding RO membrane from clogging
- Strengthened pretreatment cartridge & water soften column is optional for hard water



REVERSE OSMOSIS MODULE

- Highest quality DOW reverse osmosis systems with state of the art spiral membranes
- Remove inorganic ions, bacteria and particulates with high efficiency
- Automated forward and backward rinse to clean the membrane surface ensures stability and durability
- Flow restriction design keeps reverse osmosis membrane wet to maximize its lifespan

HIGH-STRENGTH UV LAMP

- Dual wavelength UV lamp ensures organic molecule oxidation and bacteria destruction
- UV lamp is activated only when ultrapure water is produced
- Water inlet at bottom of the cartridge to avoid trapping air bubbles
- Held in a robust and corrosion-resistant stainless steel housing
- High transmittance synthetic quartz sleeve for higher efficiency

PURIFICATION CARTRIDGE

- Adoption of high quality precision grade resin
- Dual-column design increases the ion exchange capacity of consumables and minimizes running costs



ULTRA-PURIFICATION CARTRIDGE

- Adoption of high quality nuclear grade resin
- Polishing cartridge removes ionic and organic contaminants below trace levels
- Active carbon supplement* restrain organic level inside the cartridge effectively.



ULTRA-FILTRATION FILTER / MICRO FILTER

- Effectively filter out endotoxin, proteins and nucleases, which is critical for tissue culture, cell culture and media preparation*
- The large ultrafiltration area and automatic surface rinse ensure both a high flow rate and a long service life.
- Easily switch to alternative micro filters for different applications



POINT-OF-USE FILTER

- 0.22 μm membrane filter farthest eliminates contaminants that might interfere with specific application at dispensing point



MICROPROCESSOR CONTROL

- Fully automatic and self-diagnostic system monitors and controls working condition.
- PIN-coded access to software set points prevents unauthorized changes to operation or system settings.

COMPREHENSIVE SANITIZATION

- Unlike many other systems, Heal Force entire fluid pathway is included in the automated disinfection process ensuring complete sanitization.

MODULE-DESIGNED CARTRIDGES

- High quality and economical due to disposable integrated purification column design.
- Easy replacement and quick connection.

HIGH PRECISION RESISTIVITY METER

- Flow-through structure make sure the real-time measurement of the actual ionic concentration in water
Low cell constant (0.01cm⁻¹) to ensure optimum measurement accuracy of low ionic contamination
Automatic temperature compensation (0.1° resolution) makes the value displayed on the screen meaningful

EASY-TO-READ LCD DISPLAY

- User-friendly LCD provides optimal convenience, with indication on resistivity, reservoirs water consumable changing reminder water quality.

OPTIONAL STRENGTHENED PRE-TREATMENT MODULE

- 20' size long cartridge contains detergent. Therefore, besides the feature of higher water throughput, feed water with extremely low quality can be properly dealt with

CONTAMINATION-FREE WATER TANK

- Water level sensor combined with bottom pump enables 5-level automatic water production controls
- Capacity of water reservoir includes 30L and 60L. Moreover, Ultra big 350 water reservoir is available for special needs
- The water reservoir is made through cylindrical mold and blow molding process to avoid the generation of velum
- PE material ensure low extractives
- Overflow protection tube eliminates the risk of flooding
- Cone shape bottom guarantees no stagnant water and facilitates easy clean
- Optional UV lamp and vented filter maintain consistent purity of stored water and provide effective protection against airborne contaminants.

NETWORK COMPATIBLE

- RS232 port allows for data collection and permanent record of water quality and system parameters, with date and time, to a PC or printer – essential for compliance with good laboratory practice guidelines

WATER LEAKAGE PROTECTION

- Water leakage sensor is linked to the microprocessor system to automatically cut off water input and activate alarm in the situation of leakage

CLEAR INFORMATION

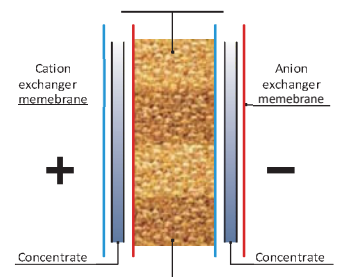
- The large easy-to-read LCD display affords the user optimal convenience, with indication on:
 - The temperature in °C
 - The temperature-compensated conductivity/resistivity of water
 - The operating mode status, such as production, stand-by
 - Liquid level in water tank
 - Consumable changing reminder

ONLINE TOC FOR PREVENTION OF ORGANIC BREAKTHROUGH

- Constant real-time Total Organic Carbon(TOC) monitoring* allows you to verify that the system's organic contaminants removal process is operating within specifications

EDI KNOW-HOW

- Adoption of Electro deionization (EDI) module brings benefits including lower energy consumption; lower maintenance cost; better ion exchange and no particulates or organic contamination
- The Smart Plus NE/Smart Plus E models incorporates state-of-the-art Electro deionization (EDI) technology to purify the water instead of only using conventional ion exchange.
- EDI is an electrically-driven water purification process which involves the use of Ion Exchange Resins and Ion Permeable Membranes. Resins are continuously regenerated by the electrical current and are never exhausted.



FULL SPECTRUM UV TREATMENT

- Low microbial and organic specification High transmittance synthetic quartz sleeve for higher efficiency Patented lamp life indicator is designed to predict lifespan according to actual Conditions



ULTRAPURE SMART N/NE/NT/NET

INTRODUCTION

THE INDUSTRY'S MOST COMPLETE WATER PURIFICATION SOLUTION FOR HIGHLY REGULATED APPLICATIONS. WHEN YOUR APPLICATION REQUIRES THE ULTIMATE IN WATER PURITY, SMART PLUS PROVIDES THE PERFECT SOLUTION. CONSISTENTLY DELIVERING WATER PURITY OF 18.2MΩ. CM AND UNDERPINNED BY THE ADVANCED TECHNOLOGIES, ULTRAPURE SMART ENABLES YOU TO FOCUS ON ATTAINING ACCURATE RESULTS WHILE ENSURING AN UNINTERRUPTED WORK FLOW.

TYPICAL SCIENTIFIC APPLICATIONS

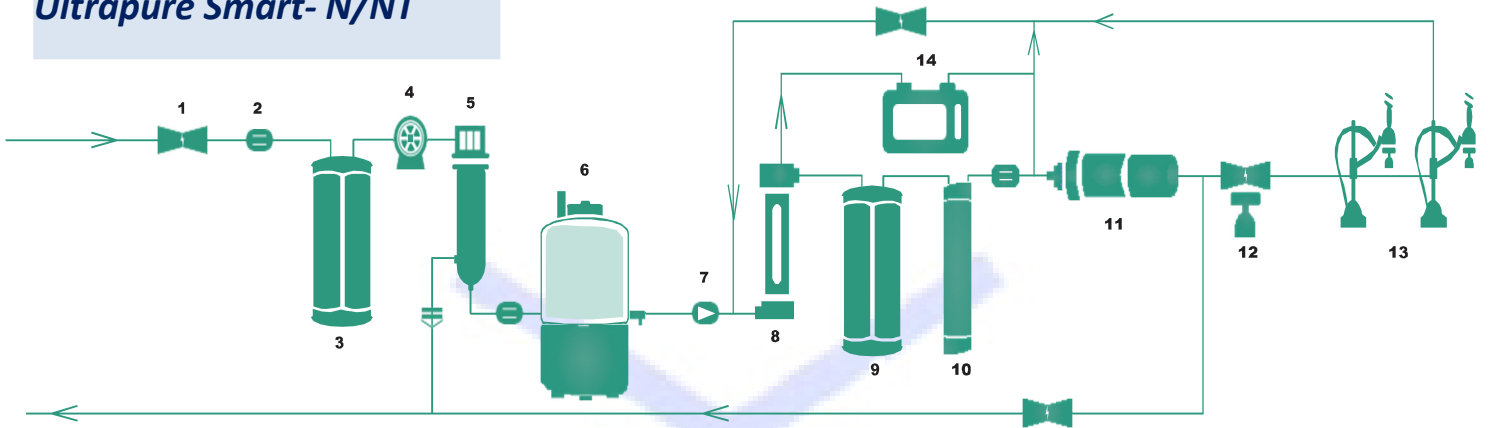
- ICP-MS (Inductively Coupled Plasma Mass Spectrometry)
- Molecular biology techniques
- Ultra trace analysis
- Electrochemistry
- Electrophoresis
- GFAAS(Graphite Furnace Atomic Absorption Spectrophotometry)
- HPLC
- IC(Ion Chromatography)
- ICP-AES(Inductively Coupled Plasma Atomic Emission Spectrometry)
- Mammalian and bacterial cell culture
- Molecular biology
- Plant tissue culture
- Qualitative analysis

CONFIGURATION

ULTRAPURE SMART SYSTEM	UPS- N	UPS- NT	UPS- NE	UPS- NET
PRETREATMENT MODULE	YES	YES	YES	YES
HIGH PRESSURE PUMP	YES	YES	YES	YES
REVERSE OSMOSIS	YES	YES	YES	YES
DUAL WAVELENGTH UV-LAMP	YES	YES	YES	YES
ULTRA-PURIFICATION CARTRIDGE	YES	YES	YES	YES
ULTRAFILTRATION CARTRIDGE	YES	YES	YES	YES
EDI MODULE	NO	NO	YES	YES
POINT-OF-USE FILTER	YES	YES	YES	YES
STORAGE TANK 30L	YES	YES	YES	YES
AIR FILTER NET FOR TANK	YES	YES	YES	YES
UV-LAMP STERILIZER FOR WATER TANK	YES	YES	YES	YES
REMOTE WATER DISPENSER WITH COLOR DISPLAY	YES	YES	YES	YES
TOC MONITORING MODULE	NO	YES	NO	YES

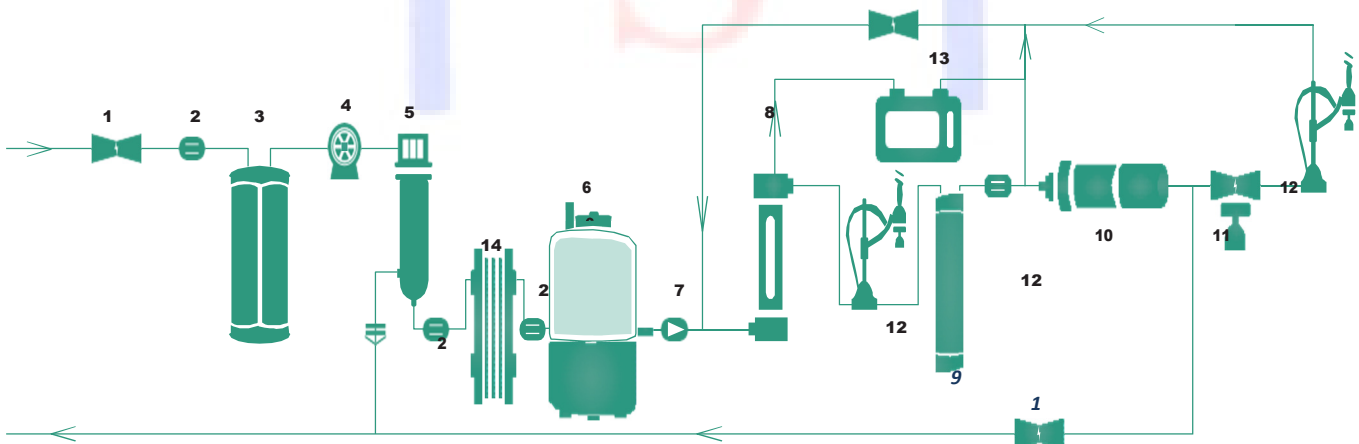
Note: Product appearance and specifications are subject to change without notice

Ultrapure Smart- N/NT



1. SOLENOID VALVE
2. CONDUCTIVITY SENSOR
3. PRE-TREATMENT MODULE
4. BOOST PUMP
5. RO MODULE
6. WATER TANK
7. BALL VALVE
8. DUAL WAVE UV CARTRIDGE
9. ULTRA-PURIFICATION MODULE
10. ULTRA-FILTRATION CARTRIDGE
11. POINT-OF-USE FILTER
12. REMOTE WATER DISPENSER
13. TOC MONITOR CELL*
14. EDI MODULE

Ultrapure Smart - NE/NET



SPECIFICATION OF ALL MODELS

MODEL	UPS-N	UPS- NT	UPS - NE	UPS - NET
FEED WATER REQUIREMENT				
SOURCE	Tap water	Tap water	Tap water	Tap water
CONDUCTIVITY*	<2000us/cm	<2000us/cm	<2000us/cm	<2000us/cm
HARDNESS**	<450ppm as CaCO3	<450ppm as CaCO3	<450ppm as CaCO3	<450ppm as CaCO3
PRESSURE	0.05~0.5MPa(7-72psi)	0.05~0.5MPa(7-72psi)	0.05~0.5MPa(7-72psi)	0.05~0.5MPa(7-72psi)
TEMPERATURE	5~40°C	5~40°C	5~40°C	5~40°C
PURIFICATION WATER(CLASS III)				
IONIC REJECTION	90~99%	90~99%	N/A	N/A
BACTERIA REJECTION	>99%	>99%	N/A	N/A
CONDUCTIVITY	1~20us/cm	1~20us/cm	N/A	N/A
PRODUCTIVITY RATE	30L/h	30L/h	N/A	N/A
HIGH QUALITY PURIFICATION WATER(CLASS II)				
RESISTIVITY AT 25°C	N/A	N/A	5~15MΩ.cm	5~15MΩ.cm
TOC	N/A	N/A	<30ppb	<30ppb
DISSOLVED ORGANIC	N/A	N/A	<0.1ppm	<0.1ppm
PRODUCTIVITY RATE	N/A	N/A	15L/h	15L/h
ULTRA PURIFICATION WATER(CLASS I)				
RESISTIVITY AT 25°C	18.2MΩ.cm	18.2MΩ.cm	18.2MΩ.cm	18.2MΩ.cm
CONDUCTIVITY AT 25°C	0.055us/cm	0.055us/cm	0.055us/cm	0.055us/cm
TOC LEVEL***	1~5ppb	1~5ppb	1~5ppb	1~5ppb
ENDOTOXIN (PYROGENS)****	<0.001EU/ml	<0.001EU/ml	<0.001EU/ml	<0.001EU/ml
PARTICULATE(≥0.02UM)	<1pc/ml	<1pc/ml	<1pc/ml	<1pc/ml
BACTERIA***	<1cfu/ml	<1cfu/ml	<1cfu/ml	<1cfu/ml
RNASE / DNASE**	Free	Free	Free	Free
MANUAL DISPENSE FLOW RATE	1.5~2.0L/min	1.5~2.0L/min	1.5~2.0L/min	1.5~2.0L/min
AUTOMATIC DISPENSE VOLUME	100~60000ml	100~60000ml	100~60000ml	100~60000ml
ELECTRICAL REQUIREMENTS				
ELECTRICAL VOLTAGE	220V±10%			
ELECTRICAL FREQUENCY	50HZ/60HZ			
PACKING INFORMATION				
MAIN UNITS	34kg	34kg	35kg	35kg
WATER TANK (30L/60L)	7kg	7kg	7kg	7kg
EXTERNAL DIMENSIONS(W×D×H)				
MAIN UNITS	315×525×570mm	315×525×570mm	315×525×570mm	315×525×570mm
WATER TANK (30L/60L)	380×380×595mm	380×380×595mm	380×380×595mm	380×380×595mm
CERTIFICATION	CE Certified	CE Certified	CE Certified	CE Certified



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