



Lab Water System



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DarsunScientific

Darsun Scientific Lab Water System

DS-610d
Touch Screen X series



Applications

- IC/ ICP/ICP-MS/HPLC/LC-MS organic analysis, electrophoresis
- TOC analysis, trance analysis, environmental analytical test
- Molecular biology related experiment; e.g: PCR, DNA/RNA preparation, protein analysis

Model	DS-610d
Process	Double pass RO system
Output of Pure Water	≥10L/H
Output of Ultrapure Water	≥1-1.5L/min
Resistivity at 25°C	18.25MΩcm
Conductivity at 25°C (Type 3 water)	≤5 US/cm
TOC	< 3ppb
Pyrogens/endotoxins	< 0.025EU/ml
Bacteria	< 1cfu/ml
Particles (> 0.22µm)	< 1/ml
Absorbance (254nm, 1cm optical distance)	≤ 0.001
Reactive Silica (SiO ₂)	< 0.01ppm
Heavy Metal	< 0.01ppm
Electrical Requirements	220V/50HZ (or customer oriented)
Power	≥150W
Dimension (L/W/H)	340 * 550 * 530mm
Weight	45KG

Section	Part Name	Quantity	Specification
Pre-treatment			
1.	PP filter	1 set	DSLcot10
	Activated carbon filter	1 set	DSLgac10
	Softener	1 set	DSLsf10
	PP filter	1 set	DSLpp10
	Reverse Osmosis		
2.	1 st booster pump	1 set	DSL24022016
	1 st RO membrane	2 set	DSLrofilm75
	2 nd booster pump	1 set	DSL24018011
	2 nd RO membrane	1 set	DSLrofilm75
	Pure water tank	1 set	30L
Ultra Pure Water Part			
3.	Pure water pump	1 set	DSL24012005
	UV lamp	1 set	185/254nm
	Integrated Ultra Purification Package	1 set	DSLup pack mu6
	Integrated Ultra purification column	1 set	DSLup mu1
	Resistance meter	1 set	DSG-303A
	Microfiltration	1 set	0.22 μm
	Other		
	Microcomputer control system	1 set	MOLIC
4.	Main body	1 set	M-TH desktop
	Maintain Tool	1 set	Molecular
	Technical Material	1 set	Molecular

Category	Details & Specifications
Equipment Configuration and Advantages	<ol style="list-style-type: none"> 1. DS Micro-computer control with Patent of Control System. 2. Built-in RO membrane antiscaling, timing automatic flush, and manual cleaning button. 3. Manual and automatic water cycling programs to maintain ultrapure water quality. 4. Online water resistance monitoring (man-machine conversation). 5. High-capacity Molecular Ultra Purification Cartridge (Patented). 6. Moldistributor system and Patent of Transport System. 7. 30L pure water tank included.
Flow Schematic	<p>Tap water 1st stage PP filter 2nd activated carbon filter 3rd softener 4th stage PP filter ,Stage I booster pump Stage I reverse osmosis membrane Stage II booster pump ,Stage II reverse osmosis membrane, Pure water tank pure water dispensing pump, Grade III pure water outlet-UV lamp ,Ultra-purification package, 0.22 micro Final micro-filtration, Grade I ultrapure water outlet</p>
Applications	<p>IC / ICP-MS / HPLC / LC-MS Organic Analysis TOC Analysis Trace Analysis Environmental Analytical Test DNA / RNA Preparation Protein Analysis Genetics Investigation</p>
Technical Features	<p>The system mainly consist of pretreatment system RO system ultrapure water system conveying unit and control system with full automatic control over the whole process e.g . automatic water preparation when water tank full automatically stop the system cut off the power water.</p> <ul style="list-style-type: none"> • Pretreatment: Filtering out impurities in the row water such as tiny particles, suspended solids, and colloids; and reduce inlet water turbidity and preventing the RO membrane from fouling. • RO Membrane: US imported RO membrane effectively removes all kinds of salt ions, organics, bacteria, and viruses. Desalination/sterilization rate reaches 99%. • membrane pure water pump: with dedicated Pure Water Pump fast Speed to intake ultrapure water its speed can up to 1–1.5 liters per minute. • UV Lamp: 254nm UV lamp to remove the bacterial in the system 185nm UV lamp to segment or ionize organics long chain in preparation for the subsequent deionization and organic absorption. • Ultra-purification system : with US ion exchange resin and special flow design high-ultra purify efficiency effectively remove the trace ions in water guarantee the stability of water quality; • Terminal Microfiltration: 0.22µm membrane/hollow fiber; membrane filter witch can filter out pollutants larger then 0.22 µm is making the particles content (larger then0.22 µm) is <1/ml.

About

We provide professional pure & ultrapure water system & solution for different laboratories. After years of exertion and innovation of water treatment technology, our seven series of Molecular laboratory pure water and ultrapure water system has been widely used in small and big labs in university, testing organization research institute hospital, pharmaceutical plant.chemical industry etc. With multi-stage pre-filters, RO, UF ,Ion exchange, UV, final filter and other technology, our machine can meet GB 6682-2008 Type 3 water standard.

Laboratory Ultrapure Water System for Research and Testing Applications

Reliable data only result from correct methods and accurate instruments. Molecular knows the importance of water in research and tests, our lab water systems consistently deliver pure and ultrapure water with the highest quality to meet various laboratory applications.

All units are equipped with RO purification, a reservoir and all needed accessories in one unit, with vertical and desktop design to meet your space demands.

The selection of the right pure water system for your laboratory will depend on varying factors such as required water quality, consumption of water and other parameters. When feed water TDS > 200ppm, we will recommend water softener and double pass reverse technology.

Lab test and corresponding water type list

Test / Application Name	Type III Water	Type II Water	Type I Water
Lab glassware washing	✓		
Hydroponics	✓		
Sterilizer use water	✓		
Gas generator use water	✓	✓	
Conventional test	✓		
Reagents / drugs preparation, dilution	✓		
Feed water for ultrapure water	✓	✓	
IC			✓
LC / LC-MS			✓
HPLC			✓
AAS			✓
ICP / ICP-MS			✓
GC / GC-MS			✓
Trace analysis			✓
TOC analysis			✓
Organic analysis			✓
Inorganic analysis			✓
Environmental analytical test			✓
Microelectronics parts cleaning			✓
Precision instrument use water			✓
Analytical reagent / drugs preparation, dilution			✓
Mass spectrometry			✓
PCR application / analysis			✓
DNA / RNA research			✓
Proteomics research			✓
Plant and animal cell culture			✓
Toxicity analysis			✓
Microbiology experiment			✓
Immunological experiment			✓
Biochemistry experiment			✓
Serum test		✓	
IVF		✓	✓

Main consumable list

No.	Name	Specification	Lifespan
1	PP filter	1st stage, 10"/20" (5µm)	3-6 months
2	Activated Carbon filter	2nd stage, 10"/20"	6-12 months
3	Softener filter	3rd stage, 10"/20"	6-12 months
4	Precision filter	4th stage, 10"/20" (1 µm)	10-12 months
5	RO membrane	75g/300g	1-2 years
6	Ultra purification resin column		1 year
7	Micro filter	0.22 µm	1 year
8	UV lamp	185/254nm	8000 hours
9	Pure water tank	30L, 80L, 120L	

Pictures for consumable parts

