* All specifications, dimensions and construction shown in this catalogue are subject to change without prior notice.

Healthy World Healthy Future

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DL UP water system

DL-P1 water machine

(With tap water as source water)

Product Advantage

The machine adopts Japanese cold cathode UV sterilizer imported with original packaging, which features as follows:
1 Alloy electrode, non-filament
2 The service life will not be affected by repeated ON/OFF
3 Longer service life (the maximum life is 50,000h)
4 Smaller volume (pipe diamter: Φ4.0mm, pipe length: 150mm)
5 Dual wavelength (185nm & 254nm), thorough sterilization +degradation of TOC
6 With strong vibration strength and unique cuppy electrode, it will not be broken due to impact and can avoid damaing UV tube during transportation and disabling the machine

It is an integrated system which produces pure water and UP water using tap water;
The entire body column is made of food-grade PP material, which is thermally fused in a one-time molding process without the need for any adhesive, ensuring no impurities are released.It uses original imported RO membranes from Dow Chemicals, USA, ensuring high-quality water production while effectively extending the lifespan of the RO membranes. It combines the ultra-long lifespan of the RO membranes with high-quality water production.

DL UP water system

DL-P2 water machine

(With tap water as source water)

Product Advantage

The machine adopts Japanese cold cathode UV sterilizer imported with original packaging, which features as follows:
1 Alloy electrode, non-filament
2 The service life will not be affected by repeated ON/OFF
3 Longer service life (the maximum life is 50,000h)
4 Smaller volume (pipe diamter: Φ4.0mm, pipe length: 150mm)
5 Dual wavelength (185nm & 254nm), thorough sterilization +degradation of TOC
6 With strong vibration strength and unique cuppy electrode, it will not be broken due to impact and can avoid damaing UV tube during transportation and disabling the machine

160*80*390mm integrated two-column purified module and 160*160*390mm unique ultra-large-capacity four-column integrated ultrapure module. The whole column is made of edible PP. Hot melt machine enables once forming and no adhesives
and impurities will be separated out. The system is internally installed with 3L+5L American Dow purified precise resin and nuclear grade resin imported with original packaging and the effluent quality reaches up to 18.2MΩ.cm.

WATER PURIFICATION SYSTEM

Product Features

- It is an integrated system which produces pure water and UP water using tap water;
- 2.5 inch large LCD, four-digit user password, intuitive and animatic menu display;
- Multi-point all-line monitoring and online 3-way monitoring to monitor the quality and temperature of source water, RO water and UP water online;
- The system functions on protection from dry-run operation and automatic shutdown under high-pressure flooding as well automatic start and alarm generation;
- The UP water circulating system can be started and closed freely so as to maintain a low level of bacterial contamination;
- Water can be stored in both a pressure barrel and a water tank., The system can display the volume of stored water to satisfy different user needs;
- The system adopts American DOW RO film imported with original packaging and full-automatic RO film anti-scaling and washing procedure. Washing time and washing time interval can be set to extend the service life of RO film;
- The service life of PP filter element, AC filter element, RO film, UV lamp, UF film and UP column filter element can be set, service time can be displayed and a reminder will be sent for replacement automatically;
- The system intakes water qualitatively at fixed time;
- Replacement time of consumables can be recorded and viewed so as to fully master equipment maintenance information;
- The system can store 1 year's operational data. The data within the specified time range can be exported to an Excel spreadsheet through the USB port;
- The system adopts a two-level password for the factory and user respectively. System settings are all protected by password to avoid unauthorized change;
- The pure water pipe and joint have both passed NSF certification;
- Resistance constant of conductivity meter: 0.01cm-1, temperature sensitivity: ±0.1°C, automatic temperature compensation; The main power supply is 24VDC (low voltage) which conforms to the safety code. ABS engineering plastic housing and water-power separated structure adapt to humid environment, avoid damaging human body and produce ultralow radiation. The system adopts advanced EMC design and features strong interference immunity and low noise;

Product Decomposition Diagram

Technical Parameter List

Name	Life Science	Trace Analysis	Molecular Biology	Basic Application
Product Type	DL-P2-TS	DL-P1-TQ DL-P2-TH	DL-P2-TF	DL-P1-TJ DL-P2 TJ
Application Range	Electrophoresis, endotoxin analysis, cell immunochemistry nucleic acid and protein separation, amino acid analysis, culture medium preparation for gel analysis, monoclonal antibody research and other experiments	Graphite furnace atomic absorption spectrometry (GFAAS) Gas chromatography- mass spectrometry(GC-MS) High performance liquidchromatography(HPLC) Plasma mass spectrometry Solid phase extraction(SPE)	Tissue and cell culture of mammals, microbiological analysis, molecular biology research, tissue and cell culture of plants	Atomic absorption spectroscopy (AAS) Atomic fluorescence, Generalchemistry, inductive coupling and inductively coupled plasma-atomicemission spectrometry (ICP-AES) Cell and culture medium preparation
System Process**	PF+PP+RO+DI+UV+UF+TF	PF+PP+RO+DI+UV+TF	PF+PP+RO+DI+UV+UF	PF+PP+RO+DI+UV
Influent Requirement*	Urban tap water: TDS<200ppm, 5-45°C, 1.0-4.0Kgf/cm^3 (if influent TDS>200ppm, external softener is recommended)			
Indexes of UP Water:				
Resistivity	18.2MΩ.cm@25°C			
PM (>0.2μm)	<1cfu/ml			
Bacteria	<0.1cfu/ml			
Total Organic Carbon (TOC)***	<3ppb		<5ppb	<10ppb
Heat Source (Endotoxin)	<0.001Eu/ml	<0.002Eu/ml	<0.001Eu/ml	N/A
Ribonuclease (RNases)	<0.01ng/ml	N/A	<0.01ng/ml	N/A
Deoxyribonuclease (DNases)	<4pg/ul	N/A	<4pg/ul	N/A
Indexes of DI Water:				
Conductivity	Conductivity<1us/cm@25°C (single-stage RO + DI), ion rejection rate: 96-99% (when new RO film is used), organic rejection rate: >99% (when MW>200 Dalton)			
Heavy Metal Ion	<0.1ppb			
Water Yield (25°C)****	5/10/20/30/40L/H			
Instantaneous Water Yield	1.5-2.0L/min (pressure barrel is needed)			
Water Outlet	2PCS.: DI water, UP water			
Size/Weight	P1:(W*D*H) 500×400×580mm/ about 38Kg,P2,P3:(W*D*H) 4 2.5 ×545×530mm/ about 2.5 Kg			
Power Supply/Power/Noise	220V50HZ/ 50-80W/ <50db			

>Influent quality will affect the quality of pure water and the service life of purified column
>PF: Pretreatment PP: Integrated PP cotton UDF: Integrated activated carbon RO: Reverse osmosis DI: Ion exchange UV: UV lamp sterilizer UF: Ultra filter TF: Terminal filter
>Determined by influent quality
>Influent TDS≈200ppm, 25°C, measured at 50psi and when the recovery ratio is 15%

New Touch Control System

New touch system

Users can control the system using smart touch screen, smart remote control, mobile phone or tablet computer. DL-P3 smart machine can monitor and control the machine timely and comprehensively whenever, wherever and under any circumstances.

control the machine timely and comprehensively whenever, wherever and under any circumstances.

Simplification of display information

DL-P3 smart machine can clearly display current running status on the smart touch screen or display current running status, water quality, temperature, pressure, service time of consumables, flow rate and water volume on the tablet computer so that users can master current data easily.

Diversification of operation method

Users can control the machine using smart touch screen, smart remote control, mobile phone or tablet computer. DL-P3 smart machine can monitor and control the machine timely and comprehensively whenever, wherever and under any circumstances.

Security of user data

DL-P3 smart machine adopts protective measures for system alarm, water intake and historical record on user quantity so as to ensure normal and safe use of the system.

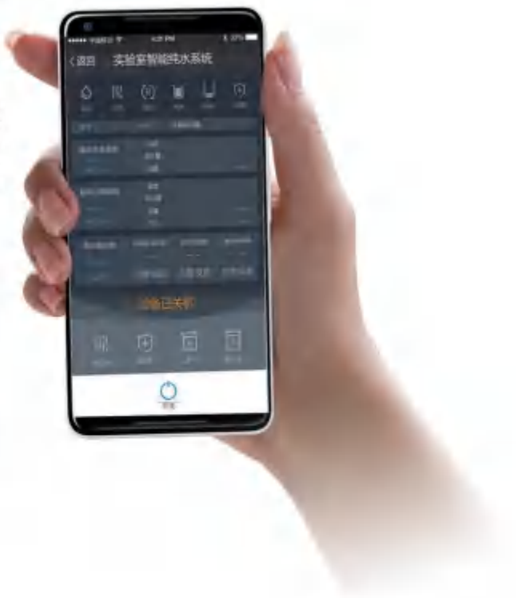
Energy-efficient operation

DL-P3 smart machine can enter standby status the system is left unused long. Standby time and auto power-off time can be set at the backstage. When left unused, the machine will shut down timely so as to reduce power consumption and save energy.

Connected to mobile phone and related to water

DL-P3 smart machine

It supports WiFi and can connect to a mobile phone.
It can display the water quality, temperature, pressure, service time of consumables, flow rate and water volume. You don't need to worry about when to replace the filter element and a reminder will be sent to your mobile phone when necessary. You can operate it using mobile phone conveniently and quickly at a long distance.



Plus UP Water System

P3 UP Water Machine (with tap water as source water) (E3 series)

Product Advantages

The machine adopts Japanese cold cathode UV lamps imported with original packaging, which features as follows:
1 Alloy electrode, non-filament
2 The service life will not be affected by repeated ON/OFF
3 Longer service life (the maximum life is 50,000h)
4 Smaller volume (pipe diamter: Φ4.0mm, pipe length: 150mm)
5 Dual wavelength (185nm & 254nm), thorough sterilization +degradation of TOC
6 With strong vibration strength and unique copper electrode, it will not be broken due to impact and can avoid damaing UV tube during transportation and disabling the machine

160*80*390mm integrated two-column purified module and 160*160*390mm unique ultra-large-capacity four-column integrated ultrapure module. The whole column is made of edible PP. Hot melt machine enables once forming and no adhesives and impurities will be separated out. The system is internally installed with 3L+5L American Dow purified precise resin and nuclear grade resin imported with original packaging and the effluent quality reaches up to 18.2MΩ.cm.

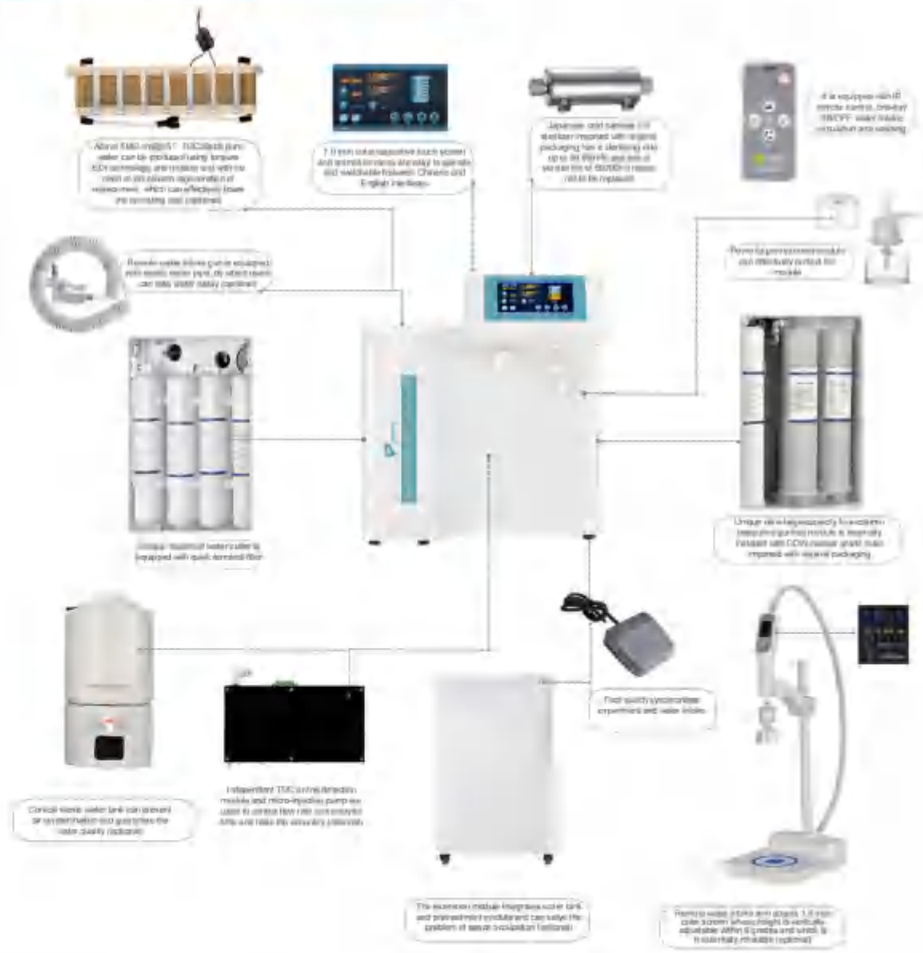
7.0 inch color capacitive touch screen and animation menu
1 The system is switchable between Chinese and English interfaces and is user-friendly. It is equipped with IR remote control, one-key ON/OFF, one-key pure water and UP water intake as well as one-key circulation and washing. Pressure sensor system displays the pressure value of RO film in real time; air joint quick foot switch enables users to get water easily; WIFI module and mobile APP enable IOS and Android users to view online data (optional);
2 Multi-point all-line monitoring and online 3-way monitoring to monitor the quality and temperature of source water, RO water and UP water online;
3 The system can intake water qualitatively and quantitatively at fixed time. Water intake volume can be set as needed and the accuracy reaches ±2ml. The quantitative range is 10-9999ml and the qualitative range is 1-18.2MΩ.cm. True color display screen displays water quality, water volume and flow rate clearly.

4 The system functions on system time setting (Y/M/D/Hr/Min), timed standby (0-60min) and timed shutdown (0-24h).
5 The system collects monitored data in real time and inquires them online. With a storage life of over 1 year, it needs no computer. USBHost interface can be used to export historical alarm record and historical water intake record.

Product Features

- It is an integrated system which produces pure water and UP water using tap water;
- The controller uses international advanced 32-digit micropower processor as the core and features ultrahigh operating rate and low power consumption. The system adopts advanced EMC design, features strong interference immunity, low noise and strong surge resistance and enables reliable, stable and long-term operation of the controller;
- The function of automatic and manual washing and circulation extends the service life of American Dow RO film imported with original packaging and reduces bacterial contamination of pure water machine;
- Resistance constant of conductivity meter: 0.01cm-1, temperature sensitivity: ±0.1°C, automatic temperature compensation;
- Full-intelligent control system supports multiuser, independent valuation and secondary factory and user password. System settings are protected by password to avoid unauthorized change;
- The system functions on online diagnosis of malfunctions (quality of source water, pre-pure water and UP water), warming or auto shutdown, intelligent trouble diagnosis of key components (magnetic valve booster pump, UV lamp and sensor, etc.) and online replacement and indication;
- Water can be stored in both a pressure barrel and a water tank., The system can display the volume of stored water to satisfy different user needs;
- The main power supply is 24VDC (low voltage) which conforms to the safety code. ABS engineering plastic housing and water-power separated structure adapt to humid environment, avoid damaging human body and produces ultralow radiation. The pure water pipe and joint have both passed NSF certification;
- According to operating requirements, various terminal treaters are optional for water intake, which can effectively remove contaminants such as endotoxin, nuclease, ultratrace organics, endocrine disruptor EDS and VOC and satisfy different experimental requirements.

Product Decomposition Diagram



DL-P3 UP Water Machine
Technical Parameter List

Name	Life Science	Trace Analysis	Molecular Biology	Basic Application
Product Type	DL-P3 TS	DL-P3 TH	DL-P3 TF	DL-P3 TJ
Application Range	Electrophoresis, endotoxin analysis, cell immunochemistry, nucleic acid and protein separation, amino acid analysis, culture medium preparation for gel analysis, monoclonal antibody research and other experiments	Graphite furnace atomic absorption spectrometry (GFAAS), gas chromatography-mass spectrometry (GC-MS), high performance liquid chromatography (HPLC), plasma mass spectrometry (ICP-MS), ion mass spectroscopy (IC), TOC analysis and solid phase extraction (SPE)	Tissue and cell culture of mammals, microbiological analysis, molecular biology research, tissue and cell culture of plants	Atomic absorption spectroscopy (AAS), atomic fluorescence, general chemistry, inductive coupling and inductively coupled plasma-atomic emission spectrometry (ICP-AES). Cell and culture medium preparation
System Process**	PF+PP+RO+DI+UV+DI+UV+UF+TF	PF+PP+RO+DI+UV+DI+UV+TF	PF+PP+RO+DI+UV+DI+UV+UF	PF+PP+RO+DI+UV+DI+UV
Influent Requirement*	Urban tap water: TDS<200ppm, 5-45°C, 1.0-4.0Kgf/cm^2 (if influent TDS>200ppm, external softener is recommended)			
Indexes of UP Water:				
Resistivity	18.2MΩ.cm@25°C			
PM (>0.2μm)	<1cfu/ml			
Bacteria	<0.1cfu/ml			
Total Organic Carbon (TOC)***	<3ppb		<5ppb	<10ppb
Heat Source (Endotoxin)	<0.001Eu/ml	<0.002Eu/ml	<0.001Eu/ml	N/A
Ribonuclease (RNases)	<0.01ng/ml	N/A	<0.01ng/ml	N/A
Deoxyribonuclease (DNases)	<4pg/ul	N/A	<4pg/ul	N/A
Indexes of DI Water:				
Conductivity	Conductivity<1us/cm@25°C (single-stage RO + DI), ion rejection rate: 96-99% (when new RO film is used), organic rejection rate: >99% (when MW>200 Dalton)			
Heavy Metal Ion	<0.1ppb			
Water Yield (25°C)****	5/10/20/30/40L/H			
Instantaneous Water Yield	1.5-2.0L/min (pressure barrel is needed)			
Water Outlet	2PCS: DI water, UP water			
Size/Weight	(W*D*H) 500×400×580mm/ about 38Kg			
Power Supply/Power/Noise	220V50HZ/ 50-80W/ <50db			

>Influent quality will affect the quality of pure water and the service life of purified column
>PF: Pretreatment PP: Integrated PP cotton UDF: Integrated activated carbon RO: Reverse osmosis DI: Ion exchange UV: UV lamp sterilizer UF: Ultra filter TF: Terminal filter
>Determined by influent quality
>Influent TDS=200ppm, 25°C, measured at 50psi and when the recovery ratio is 15%

Green High-pure Water Systen

R2 Deionized Pure Water Machine (with tap water as water source)

Application Range

Influent of UP water system, cleaning of glassware, microbiological analysis, sample dilution and reagent preparation, production process water, general chemistry and qualitative analysis, water analysis and general HPLC and spectrophotometry as well as water supply of autoclave sterilizer, cleaner, constant temperature humidity chamber, salt spray test chamber, aging tester and humidifier

Product Advantages

- Two lines of LCD display, three touch keys and one-key operation;
- Online monitoring of quality and temperature of pure water and high-pure water;
- Protection from misoperation such as cleaning and circulation;
- Early warning and protection from leakage and low pressure;
- The pure water pipe and joint have both passed NSF certification;
- American DOW RO film imported with original packaging ensures long life of RO film and high water quality;
- Resistance constant of conductivity meter: 0.01cm-1, temperature sensitivity: ±0.1°C, automatic temperature compensation;
- The main power supply is 24VDC (low voltage) which conforms to the safety code. ABS engineering plastic housing and water-power separated structure adapt to humid environment, avoid damaging human body and produce ultralow radiation. The system adopts advanced EMC design and features strong interference immunity and low noise.
- 160*80*390mm integrated two-column purified module
  The whole column is made of edible PP
  Hot melt machine enables once forming and no adhesives and impurities will be separated out.
  The system is internally installed with 3L American Dow purified precise resin imported with original packaging.
  The effluent quality reaches up to 13-17.5MΩ.cm.
- It is an integrated system which produces pure water and high-pure water using tap water.

DL-R2 Technical Parameter List

Product Type	DL-R2
Influent Requirement*	Urban tap water: TDS<200ppm, 5-45°C, 1.0-4.0Kgf/cm^3 (if influent TDS>200ppm, external softener is recommended)
System Process**	PP+UDF+UDF+PP+RO+ DI
Indexes of DI Water:	
Resistivity	13-17.5MΩ.cm@25°C
Heavy Metal Ion	<0.1pbb
PM (>0.2μm)	<1/ml
RO Indexes:	
Ion Rejection Rate	96%-99% (when new RO film is used)
Organic Rejection Rate	>99% (when MV> 200 Dalton)
PM and Bacteria Rejection Rate	>99%
Water Yield (25°C)***	5/10L/H
Instantaneous Water Yield	1.5-2.0L/min (pressure barrel is needed)
Water Outlet	2PCS: RO water, DI water
Size/Weight	(W*D*H) 315×440×470mm/ about 18Kg
Power Supply/Power/Noise	220V50HZ/ 50-80W/ <50db
Standard Configuration	Host (including 1 set of purified column) +external 12L pressure barrel+ accessory bag

>Influent quality will affect the quality of pure water and the service life of purified column
>PF: Pretreatment PP: Integrated PP cotton UDF: Integrated activated carbon RO: Reverse osmosis DI: Ion exchange UV: UV lamp sterilizer UF: Ultra filter TF: Terminal filter
>Influent TDS=200ppm, 25°C, measured at 50psi and when the recovery ratio is 15%

Green High-pure Water System

R3 Deionized Pure Water Machine (with tap water as water source)

Application Range

Influent of UP water system, cleaning of glassware, microbiological analysis, sample dilution and reagent preparation, production process water, general chemistry and qualitative analysis, water analysis and general HPLC and spectrophotometry as well as water supply of autoclave sterilizer, cleaner, constant temperature humidity chamber, salt spray test chamber, aging tester and humidifier

Application Range

- It is an integrated system which produces pure water and high-pure water using tap water;
- Two lines of LCD display, three touch keys and one-key operation;
- Online monitoring of quality and temperature of pure water and high-pure water;
- Protection from misoperation such as cleaning and circulation;
- Early warning and protection from leakage and low pressure;
- The pure water pipe and joint have both passed NSF certification;
- American DOW RO film imported with original packaging ensures long life of RO film and high water quality;
- Resistance constant of conductivity meter: 0.01cm-1, temperature sensitivity: ±0.1°C, automatic temperature compensation;
- The main power supply is 24VDC (low voltage) which conforms to the safety code. ABS engineering plastic housing and water-power separated structure adapt to humid environment, avoid damaging human body and produce ultralow radiation. The system adopts advanced EMC design and features strong interference immunity and low noise.
- 160*80*390mm integrated two-column purified module and 160*80*390mm integrated two-column UP module
- The whole column is made of edible PP. Hot melt machine enables once forming and no adhesives and impurities will be separated out. The system is internally installed with 3L American Dow purified precise resin imported with original packaging. The effluent quality reaches up to 16-18.2MΩ.cm.

DL-R3 Technical Parameter List

Product Type	DL-R3
Influent Requirement*	Urban tap water: TDS<200ppm, 5-45°C, 1.0-4.0Kgf/cm² (if influent TDS>200ppm, external softener is recommended)
System Process**	PF+PP+RO+DI
Indexes of DI Water:	
Resistivity	16-18.2MΩ.cm@25°C
Heavy Metal Ion	<0.1pbb
PM (>0.2μm)	<1/ml
RO Indexes:	
Ion Rejection Rate	96%-99% (when new RO film is used)
Organic Rejection Rate	>99% (when MV> 200 Dalton)
PM and Bacteria Rejection Rate	>99%
Water Yield (25°C)***	10/20/30/40L/H
Instantaneous Water Yield	1.5-2.0L/min (pressure barrel is needed)
Water Outlet	2PCS.: RO water, DI water
Size/Weight	(W*D*H) 410×490×510mm/ about 25Kg
Power Supply/Power/Noise	220V50HZ/ 50-80W/ <50db
Standard Configuration	Host (including 1 set of purified column) +external 12L pressure barrel+ accessory bag

>Influent quality will affect the quality of pure water and the service life of purified column
>PF: Pretreatment PP: Integrated PP cotton UDF: Integrated activated carbon RO: Reverse osmosis DI: Ion exchange UV: UV lamp sterilizer UF: Ultra filter TF: Terminal filter
>Influent TDS=200ppm, 25°C, measured at 50psi and when the recovery ratio is 15%

Fast UP Water System

M1 Deionized Pure Water Machine

(with tap water as water source)

Application Range

Water for UP water system, cleaning of glassware, microbiological analysis, sample dilution and reagent preparation, general chemistry and qualitative analysis, water analysis and general HPLC and spectrophotometry, buffer solution and medium preparation, as well as water supply of autoclave sterilizer, cleaner, full-automatic biochemical analyzer, VIDAS, constant temperature and humidity chamber, salt spray test chamber, aging tester and humidifier

Product Advantages

- It is an integrated system which produces pure water and high-pure water using tap water;
- Two lines of LCD display, three touch keys and one-key operation;
- Online monitoring of quality and temperature of pure water and high-pure water;
- Protection from misoperation such as cleaning and circulation;
- Early warning and protection from leakage and low pressure;
- The pure water pipe and joint have both passed NSF certification;
- American DOW RO film imported with original packaging ensures long life of RO film and high water quality;
- Resistance constant of conductivity meter: 0.01cm-1, temperature sensitivity: ±0.1°C, automatic temperature compensation;
- The main power supply is 24VDC (low voltage) which conforms to the safety code. ABS engineering plastic housing and water-power separated structure adapt to humid environment, avoid damaging human body and produce ultralow radiation. The system adopts advanced EMC design and features strong interference immunity and low noise.
- 1 set of integrated 10L purified module and 1 set of 10L UP module. The system is internally installed with 10L+10L American Dow purified precise resin and nuclear grade resin imported with original packaging. The effluent quality reaches up to 16-18.2MΩ.cm.

DL-M1 Technical Parameter List

Product Type	DL-M1
Influent Requirement*	Urban tap water: TDS<200ppm, 5-45°C, 1.0-4.0Kgf/cm² (if influent TDS>200ppm, external softener is recommended)
System Process**	PF+PP+RO+DI+UV
Indexes of DI Water:	
Resistivity	16-18.2MΩ.cm@25°C
Heavy Metal Ion	<0.1pbb
PM (>0.2μm)	<1/ml
RO Indexes:	
Ion Rejection Rate	96%-99% (when new RO film is used)
Organic Rejection Rate	>99% (when MV> 200 Dalton)
PM and Bacteria Rejection Rate	>99%
Water Yield (25°C)***	40/60/80/100L/H
Instantaneous Water Yield	1.5-2.0L/min (pressure barrel is needed)
Water Outlet	2PCS.: RO water, DI water
Size/Weight	(W*D*H) 560×500×1060mm/ about 85Kg
Power Supply/Power/Noise	220V50HZ/ 120W/ <50db
Standard Configuration	Host (including 1 set of purified column) +external 42L pressure barrel+ accessory bag

>Influent quality will affect the quality of pure water and the service life of purified column
>PF: Pretreatment PP: Integrated PP cotton UDF: Integrated activated carbon RO: Reverse osmosis DI: Ion exchange UV: UV lamp sterilizer
>Influent TDS=200ppm, 25°C, measured at 50psi and when the recovery ratio is 15%

WATER PURIFICATION SYSTEM

Fast UP Water System

M2 UP Water Machine

(with tap water as water source)

The machine produces UP water for high-level laboratory using tap water. The water yield per hour is 40-100L, the resistivity reaches up to 18.2MΩ.cm. The machine is completely in conformity with the highest standard for class I water quality of GB6682-2008, ASTM, CAP, CLSI, EP and USP and satisfies the requirements of laboratory water and process water.

Product Advantages

- The machine adopts Japanese cold cathode UV sterilizer imported with original packaging, which features as follows:

1 Alloy electrode, non-filament
2 The service life will not be affected by repeated ON/OFF
3 Longer service life (the maximum life is 50,000h)
4 Smaller volume (pipe diamter: Φ4.0mm, pipe length: 150mm)
5 Dual wavelength (185nm & 254nm), thorough sterilization +degradation of TOC
6 With strong vibration strength and unique cuppy electrode, it will not be broken due to impact and can avoid damaing UV tube during transportation and disabling the machine.

- 1 set of integrated 10L purified module and 1 set of 10L UP module. The system is internally installed with 10L+10L American Dow purified precise resin and nuclear grade resin imported with original packaging. The effluent quality reaches up to 18.2MΩ.cm.

Product Features

- It is an integrated system which produces pure water and UP water using tap water;
- 5.0 inch large LCD, four-digit user password, intuitive and animatic menu display;
- Multi-point all-line monitoring and online 3-way monitoring to monitor the quality and temperature of source water, RO water and UP water online;
- The system functions on protection from dry-run operation and automatic shutdown under high-pressure flooding as well automatic start and alarm generation;
- The UP water circulating system can be started and closed freely so as to maintain a low level of bacterial contamination;
- Water can be stored in both a pressure barrel and a water tank., The system can display the volume of stored water to satisfy different user needs;
- The system adopts American DOW RO film imported with original packaging and full-automatic RO film anti-scaling and washing procedure. Washing time and washing time interval can be set to extend the service life of RO film;
- The service life of PP filter element, AC filter element, RO film, UV lamp, UF film and UP column filter element can be set, service time can be displayed and a reminder will be sent for replacement automatically;
- The system intakes water qualitatively at fixed time;
- Replacement time of consumables can be recorded and viewed so as to fully master equipment maintenance information;
- The system can store 1 year's operational data. The data within the specified time range can be exported to an Excel spreadsheet through the USB port;
- The system adopts a two-level password for the factory and user respectively. System settings are all protected by password to avoid unauthorized change;
- The pure water pipe and joint have both passed NSF certification;
- Resistance constant of conductivity meter: 0.01cm-1, temperature sensitivity: ±0.1°C, automatic temperature compensation;
- The main power supply is 24VDC (low voltage) which conforms to the safety code. ABS engineering plastic housing and water-power separated structure adapt to humid environment, avoid damaging human body and produces ultralow radiation. The system adopts advanced EMC design and features strong interference immunity and low noise.

DL-M2
Technical Parameter List

Name	Life Science	Trace Analysis	Basic Application
Product Type	DL-M2 TS	DL-M2 TH	DL-M2 TJ
System Process**	PF+PP+RO+DI+UV+UF+TF	PF+PP+RO+DI+UV+TF	PF+PP+RO+DI+UV
Application Range	Molecular biology, microbiology, mammal cell culture, electrophoresis, gel analysis, DNA sequence analysis, endotoxin analysis, cell immunochemistry, nucleic acid and protein separation, monoclonal antibody research and other precise experiments	Ultratrace and trace organic, organic analysis, graphite furnace atomic absorption spectrometry (GFAAS), gas chromatography- mass spectrometry (GC-MS), high performance liquid chromatography (HPLC), plasma mass spectrometry (ICP-MS), ion mass spectroscopy (IC), TOC analysis and solid phase extraction (SPE)	atomic absorption spectroscopy
TOC***	<3ppb	<1-3ppb	<10ppb
Heat Source (Endotoxin)	<0.001Eu/ml	<0.002Eu/ml	
Ribonuclease (RNases)	<0.01ng/ml	N/A	N/A
Deoxyribonuclease (DNases)	<4pg/ul	N/A	
Indexes of UP Water:			
Influent Requirement*	Urban tap water: TDS<200ppm, 5-45°C, 1.0-4.0Kgf/cm² (if influent TDS>200ppm, external softener is recommended)		
Resistivity	18.2MΩ.cm@25°C		
Heavy Metal Ion	<0.1pbb		
PM (>0.2μm)	<1cfu/ml		
Bacteria	<1cfu/ml		
Indexes of DI Water:			
Conductivity	Conductivity<1us/cm@25°C (single-stage RO + DI), ion rejection rate: 96-99% (when new RO film is used), organic rejection rate: >99% (when MW>200 Dalton)		
Water Yield (25°C)***	40/60/80/100L/H		
Water Outlet	2PCS: RO water, DI water (RO water outlet is optional)		
Size/Weight	(W*D*H) 560×500×1060mm/ about 85Kg		
Power Supply/Power/Noise	220V50HZ/ 50-80W/ <50db		
Standard Configuration	Host (including 1 set of purified column) +external 42L pressure barrel+ accessory bag		

>Influent quality will affect the quality of pure water and the service life of purified column
>PF: Pretreatment PP: Integrated PP cotton UDF: Integrated activated carbon
RO: Reverse osmosis DI: Ion exchange UV: UV lamp sterilizer
>Determined by influent quality
>Influent TDS=200ppm, 25°C, measured at 50psi and when the recovery ratio is 15%

Consumables for Pure Water System 1

Code of Plus Series	Name	Replacement Time
PP01010003	Integrated PP cotton filter element	About 2-6 months
AC01020004	Integrated activated carbon filter element	About 6 months
RO01070001	75 GPD RO film (DOW)	About 12-24 months
RO01070003	300 GPD RO film (DOW)	About 12-24 months
ZZ01330029	PP two-column integrated deionized purified column (DOW resin)	About 6000L of pure water
ZZ01330023	PP four-column integrated UP column (DOW resin)	About 9000L of UP water
UV01140011	Dual wavelength (185nm&254nm) UV cold cathode UV tube (imported)	About 50000h
GLQ01150008	UF (film pore diameter 0.05-1.0μm)	About 10-24 months
GLQ01150009	UF (rejected molecular weight: 6000 Dalton)	About 24-36 months
GLQ01150002	TF (0.2μm)	About 10-12 months
GLQ01150001	TF (0.45+0.2μm)	About 24-36 months
Code of Green Series	**Name**	**Replacement Time**
PP01010003	Integrated PP cotton filter element	About 2-6 months
AC01020004	Integrated activated carbon filter element	About 6 months
RO01070001	75 GPD RO film (DOW)	About 12-24 months
RO01070003	300 GPD RO film (DOW)	About 12-24 months
ZZ01330029	PP two-column integrated deionized purified column (DOW resin)	About 6000L of pure water
ZZ01330022	PP two-column integrated UP column (DOW resin)	About 9000L of UP water
UV01140011	Dual wavelength (185nm&254nm) UV cold cathode UV tube (imported)	About 50000h
GLQ01150008	UF (film pore diameter 0.05-1.0μm)	About 10-24 months
GLQ01150009	UF (rejected molecular weight: 6000 Dalton)	About 24-36 months
GLQ01150002	TF (0.2μm)	About 10-12 months
GLQ01150001	TF (0.45+0.2μm)	About 24-36 months
Code of Fast Series	**Name**	**Replacement Time**
PP01010003	Integrated PP cotton filter element	About 2-6 months
RO01070003	300 GPD RO film (DOW)	About 12-24 months
RO01070006	400 GPD RO film (DOW)	About 12-24 months
RO01070008	600 GPD RO film (DOW)	About 12-24 months
CHG01350016	Deionized pure resin tank	About 20000L of pure water
CHG01350017	UP resin tank	About 20000L of UP water
UV01140011	Dual wavelength (185nm&254nm) UV cold cathode UV tube (imported)	About 50000h
GLQ01150006	UF (film pore diameter 0.2μm)	About 10-24 months
GLQ01150002	TF (0.2μm)	About 10-12 months
GLQ01150001	TF (0.45+0.2μm)	About 24-36 months
Code of Green Series	**Name**	**Replacement Time**
PP01010003	Integrated PP cotton filter element	About 2-6 months
ZZ01330029	PP two-column integrated deionized purified column (DOW resin)	About 6000L of pure water
ZZ01330023	PP four-column integrated UP column (DOW resin)	About 9000L of UP water
UV01140011	Dual wavelength (185nm&254nm) UV cold cathode UV tube (imported)	About 50000h
GLQ01150008	UF (film pore diameter 0.05-1.0μm)	About 10-24 months
GLQ01150009	UF (rejected molecular weight: 6000 Dalton)	About 24-36 months
GLQ01150002	TF (0.2μm)	About 10-12 months
GLQ01150001	TF (0.45+0.2μm)	About 24-36 months

Note: The aforesaid service time is for reference only. Actual water quality and water consumption shall apply.

Consumables for Pure Water System 2

Components of Source Water Softener

It can effectively remove suspended solids, algae, organics, heavy metals, ferrimanganic, peculiar smell, peculiar color, bacteria, residual pesticides, scale deposit and peculiar smell of chlorine disinfectants and lower hardness of water. It is applicable to purification and softening of influent, river water, tap water, reservoir water, spring water, underground water and surface water.

Code	Name	Description
QCL01350003	617 softener	Na cationic resin lowers hardenss of water
QCL01350004	730 softener	Na cationic resin lowers hardenss of water
QCL01350005	940 softener	Na cationic resin lowers hardenss of water
QCL01350001	730 multimedium filter	Internally installed with superior quartz sand and activated carbon
QCL01350002	940 multimedium filter	Internally installed with superior quartz sand and activated carbon

Source Water Pretreatment Components

It is used to filter water source of water purification machine and remove silt, rust, suspended solids, dissolved organic matters, heavy metals and residual chlorine so as to inhibit bacteria breeding, prevent scaling and effectively protect water purification machine.

Code	Name	Description
QCL01350013	10 inch three-stage filter	PP, soft water, activated carbon or KDF is optional
QCL01350015	20 inch three-stage filter	PP, soft water, activated carbon or KDF is optional
PP01010002	10 inch PP cotton filter element	Filter rust, silt and other large PM in water
AC01020001	10 inch granular activated carbon filter element	Absorb peculiar smell, chlorine odor and other organics
AC01020002	10 inch sintered activated carbon filter element	Absorb peculiar smell, chlorine odor and other organics
PP01010005	20 inch PP cotton filter element	Filter rust, silt and other large PM in water
AC01020005	20 inch sintered activated carbon filter element	Absorb peculiar smell, chlorine odor and other organics
ZZ01330017	10 inch soft water resin filter element	Lower hardness of source water and remove Ca and Mg
ZZ01330018	20 inch soft water resin filter element	Lower hardness of source water and remove Ca and Mg
ZZ01330013	10 inch KDF filter element	Absorb peculiar smell, chlorine odor and other organics, remove heavy metals, oxides and inhibit bacteria breeding
ZZ01330015	20 inch KDF filter element	Absorb peculiar smell, chlorine odor and other organics, remove heavy metals, oxides and inhibit bacteria breeding

Exclusive Cold Cathode Tube UV

- The sterilizing rate of Japanese cold cathode UV sterilizer imported with original packaging reaches up to 99.9999%.
- Cold cathode UV tube adopts alloy electrode instead of tungsten electrode for traditional hot cathode UV lamps. It is not affected by current surge and mechanical shock and does not emit heat. With a service life up to 50000h, it needs not to be replaced and features small volume and quick response.
- 1-2L/min large flow instantaneous sterilization technology enables quick start and strong illuminance. There is a draft tube at UV inlet and vortexes will diffuse evenly so as to increase contact time and area between UV and water and maximize the sterilizing rate at a high flow rate.

Code	Name	Description
UV01140011	Dual wavelength (185nm & 254nm) UV cold cathode UV tube (imported)	With a service life up to 50000h, it needs not to be replaced
DL01270088	UV cold cathode inverter	Plastic housing
Uv01140010	UV cold cathode tube components (imported)	Stainless steel housing

Consumables for Pure Water System 3

Terminal Filter

It is an instant sterile capsule-type film filter wihch satisfies the strictest requirements. Containing bilayer hydrophilic heterogeneous PES, it can guarantee the optimal service life and water yield. The filter is connected by quick coupler to terminal and can effectively remove particles and microorganisms during the last water purification process. Hydrophobic PTFE film on the top enables to exhaust air conveniently.
Imported terminal filter has been proved a sterilizing filter applicable to pharmaceutical application according to HIMA and ASTM F-838-05 bacterial experiment guidelines. Every filter undergoes integrity test during production so as to satisfy the highest quality standard and safety code.

Code: GLQ01150002
Name: 0.22μm terminal filter
Description: Imported polyether sulfone (PES), pore diameter: 0.22μm

Code: GLQ01150001
Name: 0.45+0.2μm terminal filter
Description: Imported polyether sulfone (PES) 0.45+0.2μm bilayer filtration

0.22μm terminal filter
Polypropylene (PP) polymeric housing, polycarbonate (PC) bell-shaped protective cover
Imported hydrophilic polyether sulfone (PES) folded filter medium
Fully sweat soldering technology, maixmum operating pressure is 6.5bar, maximum operating temperature is 50°C, overall lenght is 118mm, 1/4 inch NPT inlet, 3/8 inch ladder hose overhead outlet, air outlet
Biosecurity conforms to USP, endotoxin is <0.25Eu/ml, bacteria rejection rate is >107

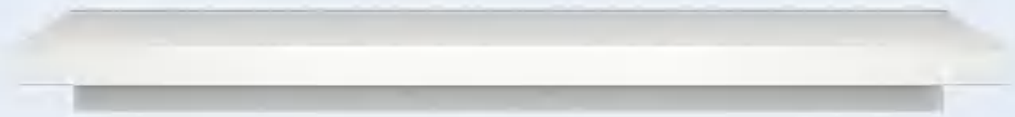
0.45+0.2μm terminal filter
Sterilizing property: Autoclaved sterilization at 134°C, 1bar, 30min
Maximum diffusion value: 1ml/min at 2.5bar; minimum bubble point: 3.2bar
Interface: 1/4" quick coupler, filter area: 150cm2

Purified Column and UP Column

Unique ultralarge capacity and integrated 2/4-colume UP module. The whole column is made of edible PP and contains no adhesives, so no impurities will not seperated out. It is internally installed with American DOW pure precise resin and nuclear garde resin imported with original packaging and the efluent quality reaches up to 18.2M Ω.cm@25°C.

Code	Name	Description
ZZ01330029	PP two-column integrated deionized pure column	Height: 390mm, containing 3L precise resin
ZZ01330022	PP two-column integrated UP column	Height: 390mm, containing 3L nuclear resin
CHG01350016	Deinoized pure resin tank	Height: 560mm, containing 3L precise resin
CHG01350017	UP resin tank	Height: 560mm, containing 3L nuclear resin
ZZ01330023	PP four-column UP column	Height: 390mm, containing 3L nuclear resin

Product Portfolio



For more details