



Harmony
SCIENTIFIC

HE

series

Laboratory water purification system

HE series (HEU/HED/HEUS/HEDS/HEUE/HEDE/HERS)

Intelligent Integration

Pure Water/Ultrapure Water System

Breakthrough design to highlight the aesthetics of science and technology.

HE series, using the innovative human-computer interactive control system and 5-inch colorful resistive touch screen, integrating functions of Internet of Things (IOT) and cloud platform, embedding new purification cartridges with patented structure, rigorous double RO system^[1], advanced EDI module^[2] and DI ion-exchange cartridges with larger capacity, equipping with built-in 1.8-liter pressure water tank, can meet your critical and professional application requirements of lab pure water.

System output ranges from 10 to 60 liters/h. It can simultaneously produce ultrapure water (18.2MΩ.cm), high pure water (>17.5MΩ.cm) or pure water^[3]. The quality of pure water fully meets or exceeds the requirements of water quality standard specified by ASTM D1193-06, GB/ T 11446.1-2013, GB/T33087-2016, GB/T6682-2008,CP,EP,USP,JP,CAP,CLSI,etc.

^[1] The double RO system is only used for HEUS/HEDS/HERS series

^[2] EDI module is only used for HEUE/HEDE series products.

^[3] [†]HED/HERS series products can produce single RO water (ion rejection rate ≥ 98%). HEDS/HERS series products can produce double RO water (<5μs/cm).

Application Area:

- HPLC、UPLC、LC-MS
- ICP-MS、ICP-AES、AAS、GC-MS
- MALDI-TOF-MS、IC、TOC analysis
- Electrochemical, spectrophotometric determination
- Preparation of microbial media and reagents
- Cell culture, PCR, IVF
- Protein purification, electrophoresis, biochemistry
- Proteomics, genomics, immunoassay
- Feed water of laboratory instruments, such as: autoclave, bottle washing machine, environmental test chamber, water bath, etc.

Innovative Control System

Bringing Efficiency & Intelligence

Intelligent human-computer interactive control system

- 5 inch colorful resistive touch screen, resolution:480×272, achieve touch operation experience the same as mobile phone.
- Simple and intuitive UI interface design, convenient to fully understand the system operating status and parameters. A glance for all important information.

Innovative Internet of Things (IO T) and cloud platform technology

- Access the internet by Ethernet or WIFI, achieve remote data acquisition, monitoring and management.
- Log into the cloud platform from PC, WAP or WeChat to get the device information.
- Timely alarm information to achieve fast customer service response.
- Health analysis based on big data makes fault judgment more accurate.
- Work order system can provide customers with efficient service guarantee.
- It can be connected to LIMS or BMS to realize equipment informatization and make laboratory information management more efficient and standardized.

Traceable comprehensive data management

- Store operating data records up to 3 years, including water dispensing, alarm and cartridge replacement, achieve data storage and paperless data management of the whole product life cycle by the cloud platform, meeting data tracking needs.
- With function of data exporting from USB port and data downloading from cloud platform.
- Data report documents in EXCEL format, meet traceability provisions of data integrity.
- Function of water dispensing report, including each water quality, water volume and user information, meet the regulatory requirements, easier to certificate.

Comprehensive water quality monitoring and alarm

- 3 water quality sensors, to monitor water quality and alarm (Feed water, RO water, DI water or UP water^[1]), electrode constant-1.1 cm²; temperature sensitivity-0.1 °C, and the conductivity/resistivity after temperature compensation and water temperature can be displayed simultaneously.
- 2 flow sensors, to achieve (RO water, DI water or UP water^[2]) quantitative dispensing function.
- With real-time display function of ion rejection rate of RO membrane.
- Independent TOC detection module is optional to real-timely monitor TOC of ultrapure water, detection range: 0.5-999.9ppb, detection accuracy: ±0.1ppb, in line with USP and EP system adaptability test.

^[1] According to different model, grade and type of pure water are different. For details, refer to the product manual.

^[2] According to different model, pure water type of quantitative dispensing is different. For details, refer to the product manual.

Perfect consumables management

- Function of consumable life management (PP/PC/RO/DI/EDI/UP/UV/UF/TF^[1]) combined with water quality, time and capacity, to reduce consumable costs.
- Serial number verification function of original cartridges, encrypted long serial number verification code, to prevent misoperation of cartridges installation and replacement.

^[1] According to different model, cartridges are different. For details, refer to the product manual.

Flexible and diverse water dispensing mode^[1]

- The host is equipped with RO, DI or DI, UP^[1] 2 standard pure water outlet, general and quantitative - 2 kinds of water dispensing mode, bringing all new dispensing experience.
- Pressure water tank, which can isolate air, stores RO water to cope with large water dispensing needs.
- Professional PE pure water tank is optional to provide the third pure water outlet, to improve water dispensing efficiency.
- Up to 5 water dispenser arms per host is optional, with general, quantitative and instant - 3 kinds of water dispensing mode. More flexible to dispense.

^[1] According to different model, pure water kind and dispensing mode are different. For details, refer to the product manual.

Professional ultrapure water circulation and disinfection function^[1]

- Ultrapure water circulation system with adjustable interval running times, to keep the system in low levels of bacterial contamination and reduce energy consumption.
- System disinfection with chemical dosing effectively sterilizes the pure water pipeline system. And it can manually perform "cycle disinfection", "dispensing outlet disinfection", "water tank refill", "manual sewage", "stop disinfection".

^[1] Applicable to ultrapure water systems.

Full security protection

- With DC24V as the main power supply, fully use weak current components, to meet the safety standards.
- 2 level permission management, administrator and ordinary users have strict permission distinction.
- Optional external water leakage protection alarm device to avoid the risk of water leakage and provide more safety protection.
- With alarm protection of No feed water, low inlet water pressure, system high pressure and full tank.
- With alarm function of standard-exceeding of Feed/RO/DI/UP water quality, and end of cartridge life.
- All alarm information can be stored in the host and cloud platform, to meet data security requirements.

Combination Of Technology & Aesthetics

Creating highlights both inside and out



Innovative design of cartridge structure

- Patented 3-chamber design, compatible with packaging of PP/PC/RO/DI cartridge, to ensure consistency.
- Patented clamping mechanism, easier and more efficient to install and replace the cartridge.
- Patented error-proofing design, effective to avoid installation errors of different cartridges.
- 12-inch cylinder with 1.36L resin filling capacity brings more bigger ion exchange capacity and more effective filtration.
- Encrypted long serial number verification code can identify the authenticity of cartridges, record the use and replacement of cartridges, and ensure the safety of the system.



All injection molded housing

- New and advanced manufacturing process bring compelling customer experience.
- With geometric surfaces and simple lines, to show rich three-dimensional sense. With extraordinary imagination, to highlight the aesthetics of science and technology. Beautiful & Easy to use.



Professional PE pure water tank (Optional)

- Material: HDPE, double layer design. Anti-UV inhibitor is added to the outer layer to prevent the growth of algae inside and improve the durability of the tank. Pure PE raw material is used in inner layer to reduce material precipitation and ensure water quality safety.
- Drainage valve is installed at the cone bottom, which can empty the water tank and ensure thorough cleaning.
- Feeding from the bottom can reduce CO₂ absorption.
- The enlarged cover with seal can prevent air from entering and facilitate manual cleaning.
- Compound air filter is in the standard configuration, containing special packing and microporous membrane, to absorb CO₂ and organics, and filtrate bacteria and particles.
- UV disinfection module is optional to sterilize tank and inhibit the growth of bacteria in the tank.
- Equipped with an independent pressure sensor, independent level control module and LCD display, it can display the liquid level, storage (L) and storage percentage (%) of the water tank in real-time in the form of dynamic icons. A clear glance for storage status.

Powerful HiDis water dispenser arm (Optional)

- Color display, to monitor dispensing resistivity, water temperature, flow rate, single and cumulative water quantity.
- General, quantitative, instant - 3 water dispensing modes cycle, meeting with needs of different water dispensing mode.
- It can be fixed on the bracket in any direction of 360 degrees horizontally, making dispensing water more flexible in different directions.
- Function of circulating with the host can always ensure the quality of pure water.
- Equipped with 0.2μm MF terminal microfilter or UF terminal ultrafilter, to produce bacterial-free, nuclease-free, proteinase-free ultrapure water.
- Up to 5 sets of HiDis water dispenser arm can be connected to one host, fully covering the pure water usage range on the laboratory table.

		2021-03-08 11:35	
Dispensing Mode	18.2 MΩ·cm @25°C		
	3.2 ppb	25.2 °C	
General	Flux	0000 ml/min	
	Amount	500 ml	



Advanced System Configuration Guaranteeing Strong Quality



1 Powerful 12-inch pretreated cartridge

- PP cartridge with deep folding membrane, accuracy of 5 μ m, to filter particles efficiently in source water.
- PC cartridge with high performance activated carbon fiber with catalyst, accuracy of 5 μ m, to adsorb organics and residual chlorine efficiently and avoid carbon powder precipitation maximumly.
- The combination of folding filter & carbon fiber filter can bring greater cartridge processing capacity, extend the replacement cycle and reduce the running cost.



2 Rigorous double RO system^[1]

- Double RO system can remove up to 99% soluble inorganic ions, 99% soluble organics, microorganisms and particles.
- Compared with single RO system, the double RO water quality can be stable < 5 μ s/cm (feed water conductivity < 1500 μ s/cm), and the life of the ultrapure unit is longer.
- Equipped with DuPont RO membrane, to achieve combination of long life, stability and high ion rejection rate.
- Auto-flushing function of RO module with adjustable flushing interval and duration, to effectively prevent scale and prolong the life of the membrane.
- The automatic discharge function of unqualified RO water can ensure that the RO water quality is suitable to enter the back-end module.
- Integral package of discarded RO module, easy to install and maintain.

^[1] Applicable to HEUS/HEDS/HERS.



3 High performance purification cartridge

- Patented cartridge structure uses full droop flow mode to prevent the stratification of resin and ensure the exchange capacity of cartridge.
- The resin filling capacity per cartridge is up to 1.36 liters, and up to 3 cartridges can be equipped every host^[1], with a total filling capacity of 4.08 liters, achieving greater ion exchange capacity and significantly reducing the running cost.
- All DuPont resin and high purity material of column ensure absolute 18.2M Ω .cm of ultrapure water resistivity and reduce TOC precipitation.

^[1] According to different model, cartridge configuration is different. For details, refer to the product manual.



4 Professional mini EDI module^[1]

- Without softener and chemical regeneration, pure water in grade II, with resistivity > 10MΩ.cm@25 °C (generally above 15MΩ.cm), and TOC<30ppb^[2], is available. It can prolong the life of back-end module and reduce the running cost.

^[1] Applicable to HEUE/HEDE.

^[2] The values vary depending on the nature and concentration of contaminants in source water.



5 Built-in 1.8-liter pressure water tank^[1]

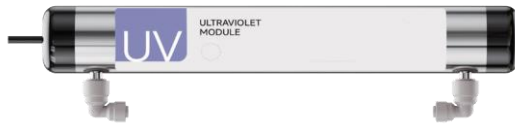
- With dual functions of water storage and pressurization, FDA approved, its fully enclosed structure effectively isolates air, and prevent the touching of CO₂ and other pollutants with pure water. Up to 100 liters is optional volume.
- 60 or 120 liters pure water tank with liquid level sensor, equipped with air filter, is optional to achieve more professional pure water storage.

6 Double wavelength UV module^[1]

- Long-life ultraviolet lamp (185&254nm), combined with SUS316L flow shell, can reduce the value of TOC to ≤ 2ppb^[2], and can achieve efficient sterilization and inhibit bacterial growth, suitable for HPLC, UPLC, LC-MS and other precision instruments.

^[1] Applicable to ultrapure water systems equipped with UV module.

^[2] The values vary depending on the nature and concentration of contaminants in source water.



7 Ultrafiltration module^[1]

- With PES membrane and MWCO>5000D, effectively removes pyrogen/endotoxin, RNase, DNase, and produces nuclease-free, proteinase-free and bacterial-free ultrapure water, suitable for life science applications, such as cell culture/IVF.

^[1] Applicable to ultrapure water systems equipped with UF module.

8 MF terminal microfilter^[1]

- (0.45+0.2)μm double-layer PES membrane ensures microbial retention, effectively removes particles and bacteria, and meets critical application requirements.

^[1] Applicable to ultrapure or high-pure water system. For details, refer to the product manual.



9 UF terminal ultrafilter^[1]

- With PES membrane and MWCO>15000D, effectively removes pyrogen/endotoxin, RNase, DNase, and produces nuclease-free, proteinase-free and bacterial-free ultrapure water, suitable for life science applications, such as cell culture/IVF.

^[1] Optional accessory for ultrapure water system only.



10 Multiple communication interfaces^[1]

- USB interface, to export running data or upgrade system version online.
- RJ45 or USB/WIFI interface, to achieve the IOT and cloud platform connection.
- HiDis pure water dispensing arm interface, to achieve power supply and data communication with the host.(Optional)
- L-Tank pure water tank interface, to synchronize water tank level signal with the host. (Optional)
- FS foot switch interface, easy to dispense, suitable for more dispensing scenarios. (Optional)

^[1] The interface configuration varies according to the model. For details, refer to the product manual.

HEU series

Intelligent Integration Ultrapure Water System

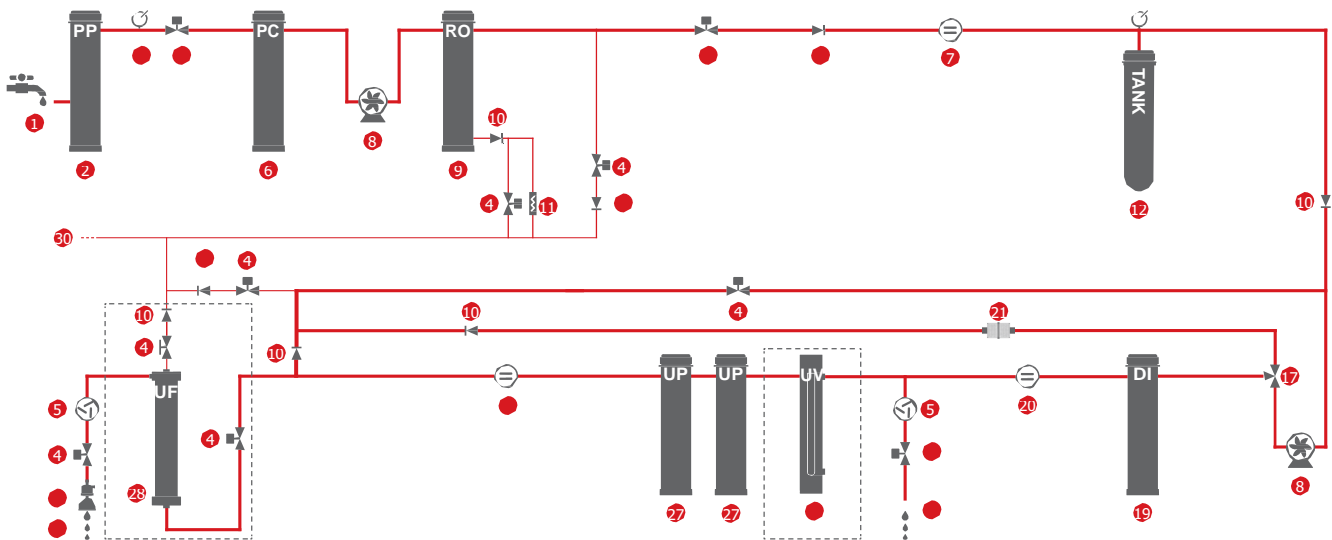
—Ultrapure water, high pure water

With tap water inlet, using the innovative human-computer interactive control system and 5-inch colorful resistive touch screen, integrating functions of Internet of Things (IOT) and cloud platform, embedding new purification cartridges with patented structure, stable and reliable single RO system, and DI ion-exchange cartridges with larger capacity, equipping with built-in 1.8-liter pressure water tank.

System output: 20, 40, 60 liters/h. It can simultaneously produce ultrapure water (18.2MΩ.cm) and high pure water (>16MΩ.cm). The quality of pure water fully meets or exceeds the requirements of water quality standard specified by ASTM D1193-06, GB/T 11446.1-2013, GB/T 33087-2016, GB/T 6682-2008, CP, EP, USP, JP, CAP, CLSI, etc.



Flow Diagram



- | | | | |
|-----------------------------|-----------------------|-----------------------|--------------------------|
| ① Feed Water | ⑨ RO cartridge | ⑰ Three wayvalve | ⑳ UV Component |
| ② PPPretreatmentCartridge | ⑩ One way valve | ⑱ High tension switch | ㉑ TOC Component |
| ③ Pressure sensor | ⑪ Flow Restrictor | ⑲ DI Cartridge | ㉒ UP Ultrapure cartridge |
| ④ Solenoid valve | ⑫ Pressure water tank | ⑳ Resistivity Sensor | ㉓ UF Cartridge |
| ⑤ Flowsensor | ⑬ RO Water Outlet | ㉑ Sanitization Block | ㉔ UP WaterOutlet |
| ⑥ PC Pretreatment Cartridge | ⑭ Low tension switch | ㉒ Final Filter | ㉕ Drain Outlet |
| ⑦ Conductivity Sensor | ⑮ EDI Component | ㉓ DI Water Outlet | |
| ⑧ Pump | ⑯ PE water tank | ㉔ Dispenser arm | |

HEU Specifications

Name	Standard	Low TOC	Eliminating endotoxin	Synthesizing
Model	HEU-20/40/60	HEU-20/40/60UV	HEU-20/40/60UF	HEU-20/40/60UVF
Production rate ^[1]	20series: 20L/hour, 40series: 40L/hour, 60series: 60L/hour			
Dispensing rate ^[2]	Up to 2liters/minute	Up to 2liters/minute	Up to 2liters/minute	Up to 2liters/minute
Ultrapure water quality ^[3]				
Resistivity (25°C) ^[4]	18.2MΩ.cm	18.2MΩ.cm	18.2MΩ.cm	18.2MΩ.cm
Conductivity (25°C)	0.055 μs/cm	0.055 μs/cm	0.055 μs/cm	0.055 μs/cm
TOC ^[5]	5 ppb ^[6]	2 ppb ^[7]	5 ppb ^[6]	2 ppb ^[7]
Particles ^[8]	<1 /ml (>0.2μm)	<1/ml (>0.2μm)	<1 /ml (>0.2μm)	<1/ml (>0.2μm)
Bacteria ^[9]	<0.01CFU/ml	<0.01CFU/ml	<0.01CFU/ml	<0.01CFU/ml
Endotoxin ^[10]	N/A	N/A	<0.001EU/ml	<0.001EU/ml
RNases ^[10]	N/A	N/A	1 pg/ml	1 pg/ml
DNases ^[10]	N/A	N/A	5 pg/ml	5 pg/ml
Protease ^[10]	N/A	N/A	0.15 μg/ml	0.15 μg/ml
DI water quality ^[3]				
Resistivity (25°C) ^[4]	>16MΩ.cm	>16MΩ.cm	>16MΩ.cm	>16MΩ.cm
Conductivity (25°C)	<0.063 μs/cm	<0.063 μs/cm	<0.063 μs/cm	<0.063 μs/cm
Particles ^[8]	N/A	N/A	N/A	N/A
Bacteria ^[9]	N/A	N/A	N/A	N/A
RO ^{1st} water quality ^[3]				
Ion rejection rate	98%-99% (with new RO module)	98%-99% (with new RO module)	98%-99% (with new RO module)	98%-99% (with new RO module)
Organic rejection rate	>99% (MW>300 Dalton)	>99% (MW>300 Dalton)	>99% (MW>300 Dalton)	>99% (MW>300 Dalton)
Particles and bacteria rejection rate	>99%	>99%	>99%	>99%
Feed water requirements				
Water source type	Tap water	Tap water	Tap water	Tap water
Pressure	1-6 bar	1-6 bar	1-6 bar	1-6 bar
Temperature	5-40°C	5-40°C	5-40°C	5-40°C
Conductivity	<2000 μs/cm	<2000 μs/cm	<2000 μs/cm	<2000 μs/cm
Total hardness (In CaCO ₃)	<300 ppm	<300 ppm	<300 ppm	<300 ppm
TOC	<2000 ppb	<2000 ppb	<2000 ppb	<2000 ppb
Free chlorine	<3 ppm	<3 ppm	<3 ppm	<3 ppm
PH	4-10	4-10	4-10	4-10
Dissolved CO ₂	<30ppm	<30ppm	<30ppm	<30ppm
Power supply	20/40 series: 100-240V,50/60Hz, 60 series: 200-240V,50/60Hz			
Total Power	20/40series: 120W, 60series: 240W			
Dimension (L×W×H)	Main host: 370×623×600mm	Main host: 370×623×600mm	Main host: 370×623×600mm	Main host: 370×623×600mm
weight	Main host: about 28KG	Main host: about 28KG	Main host: about 28KG	Main host: about 28KG
Standard configuration	Main host 1 set All cartridges 1set 1.8-liter pressure water tank 1set	Main host 1 set All cartridges 1set 1.8-liter pressure water tank 1set	Main host 1 set All cartridges 1set 1.8-liter pressure water tank 1set	Main host 1 set All cartridges 1set 1.8-liter pressure water tank 1set

[1] Affected by inlet water quality, pressure, temperature and status of RO membrane

[2] Affected by the tank status and terminal filter

[3] The following values are typical and may vary depending on the nature and concentration of feed water contaminants

[4] According to USP requirements, the resistivity can be displayed as a non-temperature-compensated value

[5] Affected by the type of organics

[6] Inlet TOC<1000ppb, follow professional operating procedures and correct sampling conditions

[7] Inlet TOC<50ppb, follow professional operating procedures and correct sampling conditions

[8] Equip with terminal microfilter and follow professional operating procedures and correct sampling conditions

[9] Equip with terminal microfilter and follow professional operating procedures and correct sampling conditions

[10] Equip with terminal ultrafilter and follow professional operating procedures and correct sampling conditions

HED series

Intelligent Integration Pure Water System

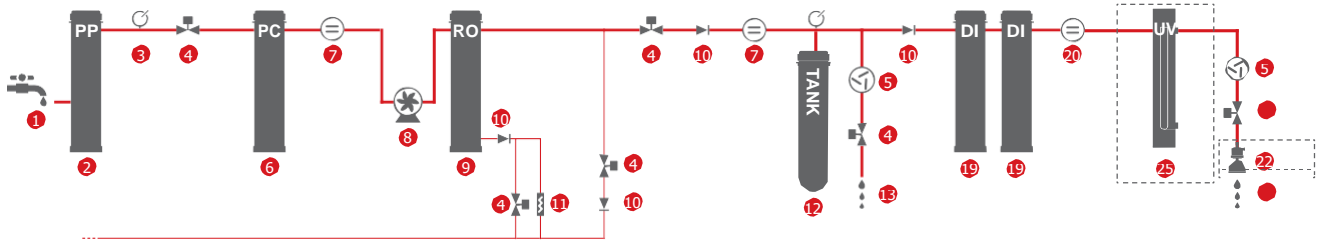
—High pure water, RO^{1st} water

With tap water inlet, using the innovative human-computer interactive control system and 5-inch colorful resistive touch screen, integrating functions of Internet of Things (IOT) and cloud platform, embedding new purification cartridges with patented structure, stable and reliable single RO system, and DI ion-exchange cartridges with larger capacity, equipping with built-in 1.8-liter pressure water tank.

System output: 20, 40, 60 liters/h. It can simultaneously produce high pure water (>17.5MΩ.cm) and single RO water. The quality of pure water fully meets or exceeds the requirements of water quality standard specified by ISO3696 (Grade 2), GB/T 6682 (Grade 1), ASTM D1193 (Type II reagent water), JIS K0557, etc., also meets the purified water technical requirements of CP, EP, USP, JP and other national pharmacopoeia.



Flow Diagram



- | | | | |
|-----------------------------|-----------------------|-----------------------|--------------------------|
| ① Feed Water | ⑨ RO cartridge | ⑭ Three wayvalve | ⑳ UV Component |
| ② PPPretreatment Cartridge | ⑩ One wayvalve | ⑮ High tension switch | ㉑ TOC Component |
| ③ Pressure sensor | ⑪ Flow Restrictor | ⑯ DI Cartridge | ㉒ UP Ultrapure cartridge |
| ④ Solenoid valve | ⑫ Pressure water tank | ⑰ Resistivity Sensor | ㉓ UF Cartridge |
| ⑤ Flowsensor | ⑬ RO Water Outlet | ⑱ Sanitization Block | ㉔ UP Water Outlet |
| ⑥ PC Pretreatment Cartridge | ⑭ Low tension switch | ㉑ Final Filter | ㉕ Drain Outlet |
| ⑦ Conductivity Sensor | ⑮ EDI Component | ㉒ DI Water Outlet | |
| ⑧ Pump | ⑯ PEwater tank | ㉓ Dispenser arm | |

HED Specifications

Name	Standard	Eliminating bacteria and particle
Model	HED-20/40/60	HED-20/40/60UT
Production rate ^[1]	20 series: 20L/hour, 40 series: 40L/hour, 60 series: 60L/hour	
Dispensing rate ^[2]	Up to 2 liters/minute	Up to 2 liters/minute
DI water quality^[3]		
Resistivity (25°C) ^[4]	>17.5 MΩ.cm	>17.5 MΩ.cm
Conductivity (25°C)	<0.057 μs/cm	<0.057 μs/cm
Particles ^[8]	N/A	<1/ml (>0.2μm)
Bacteria ^[9]	N/A	<0.01CFU/ml
RO^{1st} water quality^[3]		
Ion rejection rate	98%-99%(with new RO module)	98%-99%(with new RO module)
Organic rejection rate	>99% (MW>300 Dalton)	>99% (MW>300 Dalton)
Particles and bacteria rejection rate	>99%	>99%
Feed water requirements		
Water source type	Tap water	Tap water
Pressure	1-6 bar	1-6 bar
Temperature	5-40°C	5-40°C
Conductivity	<2000 μs/cm	<2000 μs/cm
Total hardness (In CaCO ₃)	<300 ppm	<300 ppm
TOC	<2000 ppb	<2000 ppb
Free chlorine	<3 ppm	<3 ppm
PH	4-10	4-10
Dissolved CO ₂	<30 ppm	<30 ppm
Power supply	100-240V , 50/60Hz	100-240V , 50/60Hz
Total Power	120W	120W
Dimension (LxWxH)	Main host: 370×623×600mm	Main host: 370×623×600mm
weight	Main host: about 26KG	Main host: about 26KG
Standard configuration	Main host 1 set All cartridges 1 set 1.8-liter pressure water tank 1 set	Main host 1 set All cartridges 1 set 1.8-liter pressure water tank 1 set

[1] Affected by inlet water quality, pressure, temperature and status of RO membrane

[2] Affected by the tank status and terminal filter

[3] The following values are typical and may vary depending on the nature and concentration of feed water contaminants

[4] According to USP requirements, the resistivity can be displayed as a non-temperature-compensated value

[5] Affected by the type of organics

[6] Inlet TOC<1000ppb, follow professional operating procedures and correct sampling conditions

[7] Inlet TOC<50ppb, follow professional operating procedures and correct sampling conditions

[8] Equip with terminal microfilter and follow professional operating procedures and correct sampling conditions

[9] Equip with terminal microfilter and follow professional operating procedures and correct sampling conditions

[10] Equip with terminal ultrafilter and follow professional operating procedures and correct sampling conditions

HEUS series

Intelligent Integration Ultrapure Water System

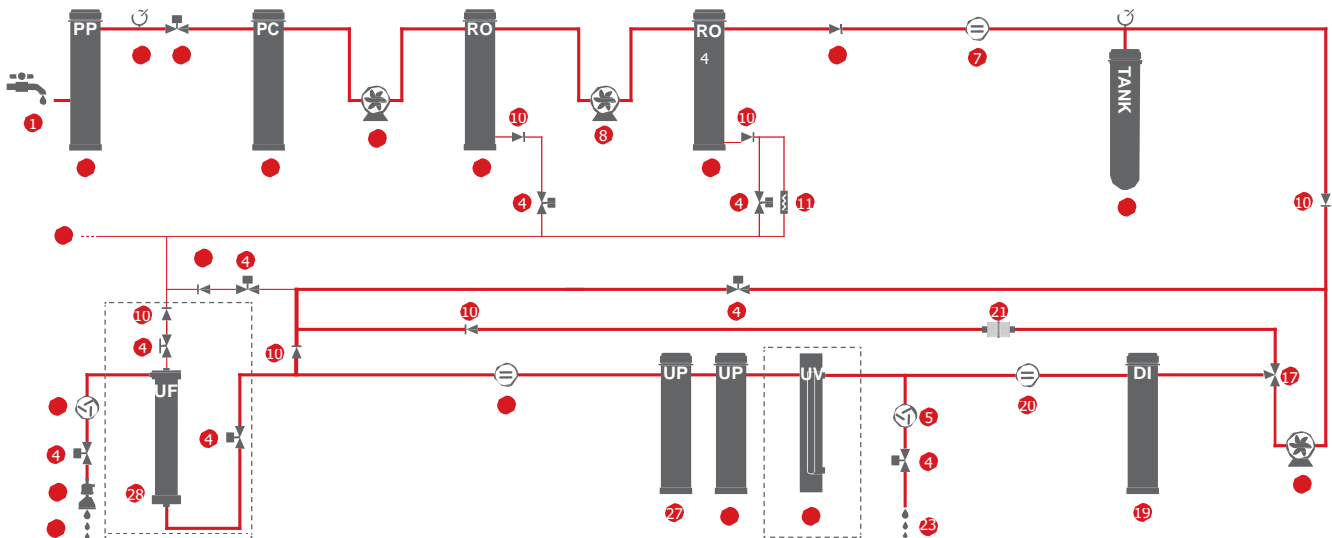
—Ultrapure water, high pure water

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System output: 13, 25 liters/h. It can simultaneously produce ultrapure water (18.2MΩ.cm) and high pure water (>16MΩ.cm). The quality of pure water fully meets or exceeds the requirements of water quality standard specified by ASTM D1193-06, GB/T 11446.1-2013, GB/T 33087-2016, GB/T 6682-2008, CP, EP, USP, JP, CAP, CLSI, etc.



Flow Diagram



- | | | | |
|-----------------------------|-----------------------|-----------------------|--------------------------|
| ① Feed Water | ⑨ RO cartridge | ⑰ Three wayvalve | ⑳ UV Component |
| ② PPPretreatmentCartridge | ⑩ One wayvalve | ⑱ High tension switch | ㉑ TOC Component |
| ③ Pressure sensor | ⑪ Flow Restrictor | ⑲ DI Cartridge | ㉒ UP Ultrapure cartridge |
| ④ Solenoid valve | ⑫ Pressure water tank | ⑳ Resistivity Sensor | ㉓ UF Cartridge |
| ⑤ Flow sensor | ⑬ RO WaterOutlet | ㉑ Sanitization Block | ㉔ UP WaterOutlet |
| ⑥ PC Pretreatment Cartridge | ⑭ Low tension switch | ㉒ Final Filter | ㉕ Drain Outlet |
| ⑦ Conductivity Sensor | ⑮ EDI Component | ㉓ DI WaterOutlet | |
| ⑧ Pump | ⑯ PEwatertank | ㉔ Dispenser arm | |

HEUS Specifications

Name	Standard	Low TOC	Eliminating endotoxin	Synthesizing
Model	HEUS-13/25	HEUS-13/25UV	HEUS-13/25UF	HEUS-13/25UVF
Production rate ^[1]	13 series: 13 L/hour, 25 series: 25 L/hour			
Dispensing rate ^[2]	Up to 2 liters/minute	Up to 2 liters/minute	Up to 2 liters/minute	Up to 2 liters/minute
Ultrapure water quality ^[3]				
Resistivity (25°C) ^[4]	18.2 MΩ.cm	18.2 MΩ.cm	18.2 MΩ.cm	18.2 MΩ.cm
Conductivity (25°C)	0.055 μs/cm	0.055 μs/cm	0.055 μs/cm	0.055 μs/cm
TOC ^[5]	5 ppb ^[6]	2 ppb ^[7]	5 ppb ^[6]	2 ppb ^[7]
Particles ^[8]	<1/ml (>0.2μm)	<1/ml (>0.2μm)	<1/ml (>0.2μm)	<1/ml (>0.2μm)
) Bacteria ^[9]	<0.01CFU/ml	<0.01CFU/ml	<0.01CFU/ml	<0.01CFU/ml
Endotoxin ^[10]	N/A	N/A	<0.001EU/ml	<0.001EU/ml
RNases ^[10]	N/A	N/A	1 pg/ml	1 pg/ml
DNases ^[10]	N/A	N/A	5 pg/ml	5 pg/ml
Protease ^[10]	N/A	N/A	0.15 μg/ml	0.15 μg/ml
DI water quality ^[3]				
Resistivity (25°C) ^[4]	>16 MΩ.cm	>16 MΩ.cm	>16 MΩ.cm	>16 MΩ.cm
Conductivity (25°C)	<0.063 μs/cm	<0.063 μs/cm	<0.063 μs/cm	<0.063 μs/cm
Particles ^[8]	N/A	N/A	N/A	N/A
Bacteria ^[9]	N/A	N/A	N/A	N/A
RO^{2nd} water quality ^[3]				
Resistivity (25°C) ^[4]	>0.2 MΩ.cm	>0.2 MΩ.cm	>0.2 MΩ.cm	>0.2 MΩ.cm
Conductivity (25°C)	<5 μs/cm	<5 μs/cm	<5 μs/cm	<5 μs/cm
Organic rejection rate	>99% (MW>300 Dalton)	>99% (MW>300 Dalton)	>99% (MW>300 Dalton)	>99% (MW>300 Dalton)
) Particles and bacteria rejection rate	>99%	>99%	>99%	>99%
Feed water requirements				
Water source type	Tap water	Tap water	Tap water	Tap water
Pressure	1-6 bar	1-6 bar	1-6 bar	1-6 bar
Temperature	5-40°C	5-40°C	5-40°C	5-40°C
Conductivity	<2000 μs/cm	<2000 μs/cm	<2000 μs/cm	<2000 μs/cm
Total hardness (In CaCO ₃)	<300 ppm	<300 ppm	<300 ppm	<300 ppm
TOC	<2000 ppb	<2000 ppb	<2000 ppb	<2000 ppb
Free chlorine	<3 ppm	<3 ppm	<3 ppm	<3 ppm
PH	4-10	4-10	4-10	4-10
Dissolved CO ₂	<30 ppm	<30 ppm	<30 ppm	<30 ppm
Power supply	100-240V , 50/60Hz	100-240V , 50/60Hz	100-240V , 50/60Hz	100-240V , 50/60Hz
Total Power	120W	120W	120W	120W
(LxWxH)	Main host: 370×623×600mm	Main host: 370×623×600mm	Main host: 370×623×600mm	Main host: 370×623×600mm
weight	Main host: about 32KG	Main host: about 32KG	Main host: about 32KG	Main host: about 32KG
Standard configuration	Main host 1 set All cartridges 1 set 1.8-liter pressure water tank 1 set	Main host 1 set All cartridges 1 set 1.8-liter pressure water tank 1 set	Main host 1 set All cartridges 1 set 1.8-liter pressure water tank 1 set	Main host 1 set All cartridges 1 set 1.8-liter pressure water tank 1 set

[1] Affected by inlet water quality, pressure, temperature and status of RO membrane

[2] Affected by the tank status and terminal filter

[3] The following values are typical and may vary depending on the nature and concentration of feed water contaminants

[4] According to USP requirements, the resistivity can be displayed as a non-temperature-compensated value

[5] Affected by the type of organics

[6] Inlet TOC<1000ppb, follow professional operating procedures and correct sampling conditions

[7] Inlet TOC<50ppb, follow professional operating procedures and correct sampling conditions

[8] Equip with terminal microfilter and follow professional operating procedures and correct sampling conditions

[9] Equip with terminal microfilter and follow professional operating procedures and correct sampling conditions

[10] Equip with terminal ultrafilter and follow professional operating procedures and correct sampling conditions

HEDS series

Intelligent Integration Pure Water System

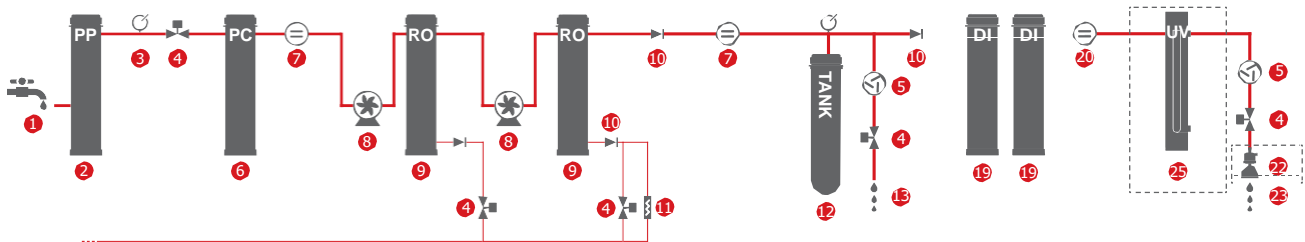
—High pure water, RO^{2nd} water

With tap water inlet, using the innovative human-computer interactive control system and 5-inch colorful resistive touch screen, integrating functions of Internet of Things (IOT) and cloud platform, embedding new purification cartridges with patented structure, rigorous double RO system, and DI ion-exchange cartridges with larger capacity, equipping with built-in 1.8-liter pressure water tank.

System output: 13, 25 liters/h. It can simultaneously produce high pure water (>17.5MΩ.cm) and double RO water (<5μs/cm). The quality of pure water fully meets or exceeds the requirements of water quality standard specified by ISO3696 (Grade 2), GB/T 6682 (Grade 1), ASTM D1193 (Type II reagent water), JIS K0557, etc., also meets the purified water technical requirements of CP, EP, USP, JP and other national pharmacopoeia.



Flow Diagram



- | | | | |
|-----------------------------|-----------------------|-----------------------|--------------------------|
| ① Feed Water | ⑨ RO cartridge | ⑰ Three wayvalve | ⑳ UV Component |
| ② PPPretreatment Cartridge | ⑩ One way valve | ⑱ High tension switch | ㉑ TOC Component |
| ③ Pressure sensor | ⑪ Flow Restrictor | ㉒ DI Cartridge | ㉒ UP Ultrapure cartridge |
| ④ Solenoid valve | ⑫ Pressure water tank | ㉓ Resistivity Sensor | ㉓ UF Cartridge |
| ⑤ Flowsensor | ⑬ RO Water Outlet | ㉔ Sanitization Block | ㉔ UP Water Outlet |
| ⑥ PC Pretreatment Cartridge | ⑭ Low tension switch | ㉕ Final Filter | ㉕ Drain Outlet |
| ⑦ Conductivity Sensor | ⑮ EDI Component | ㉖ DI Water Outlet | |
| ⑧ Pump | ⑯ PE water tank | ㉗ Dispenser arm | |

HEDS Specifications

Name	Standard	Eliminating bacteria and particle
Model	HEDS-13/25	HEDS-13/25UT
Production rate ^[1]		13 series: 13 L/hour, 25 series: 25 L/hour
Dispensing rate ^[2]	Up to 2 liters/minute	Up to 2 liters/minute
DI water quality ^[3]		
Resistivity (25°C) ^[4]	>17.5 MΩ.cm	>17.5 MΩ.cm
Conductivity (25°C)	<0.057 μs/cm	<0.057 μs/cm
Particles ^[8]	N/A	<1/ml (>0.2μm)
Bacteria ^[9]	N/A	<0.01CFU/ml
RO^{2nd} water quality ^[3]		
Resistivity (25°C) ^[4]	>0.2 MΩ.cm	>0.2 MΩ.cm
Conductivity (25°C)	<5 μs/cm	<5 μs/cm
Organic rejection rate	>99% (MW>300 Dalton)	>99% (MW>300 Dalton)
Particles and bacteria rejection rate	>99%	>99%
Feed water requirements		
Water source type	Tap water	Tapwater
Pressure	1-6 bar	1-6 bar
Temperature	5-40°C	5-40°C
Conductivity	<2000 μs/cm	<2000 μs/cm
Total hardness (In CaCO ₃)	<300 ppm	<300 ppm
TOC	<2000 ppb	<2000 ppb
Free chlorine	<3 ppm	<3 ppm
PH	4-10	4-10
Dissolved CO ₂	<30 ppm	<30 ppm
Power supply	100-240V , 50/60Hz	100-240V , 50/60Hz
Total Power	120W	120W
Dimension (L×W×H)	Main host: 370×623×600mm	Main host: 370×623×600mm
weight	Main host: about 30KG	Main host: about 30KG
Standard configuration	Main host 1 set All cartridges 1set 1.8-liter pressure water tank 1 set	Main host 1 set All cartridges 1set 1.8-liter pressure water tank 1 set

[1] Affected by inlet water quality, pressure, temperature and status of RO membrane

[2] Affected by the tank status and terminal filter

[3] The following values are typical and may vary depending on the nature and concentration of feed water contaminants

[4] According to USP requirements, the resistivity can be displayed as a non-temperature-compensated value

[5] Affected by the type of organics

[6] Inlet TOC<1000ppb, follow professional operating procedures and correct sampling conditions

[7] Inlet TOC<50ppb, follow professional operating procedures and correct sampling conditions

[8] Equip with terminal microfilter and follow professional operating procedures and correct sampling conditions

[9] Equip with terminal microfilter and follow professional operating procedures and correct sampling conditions

[10] Equip with terminal ultrafilter and follow professional operating procedures and correct sampling conditions

HEUE series

Intelligent Integration Ultrapure Water System

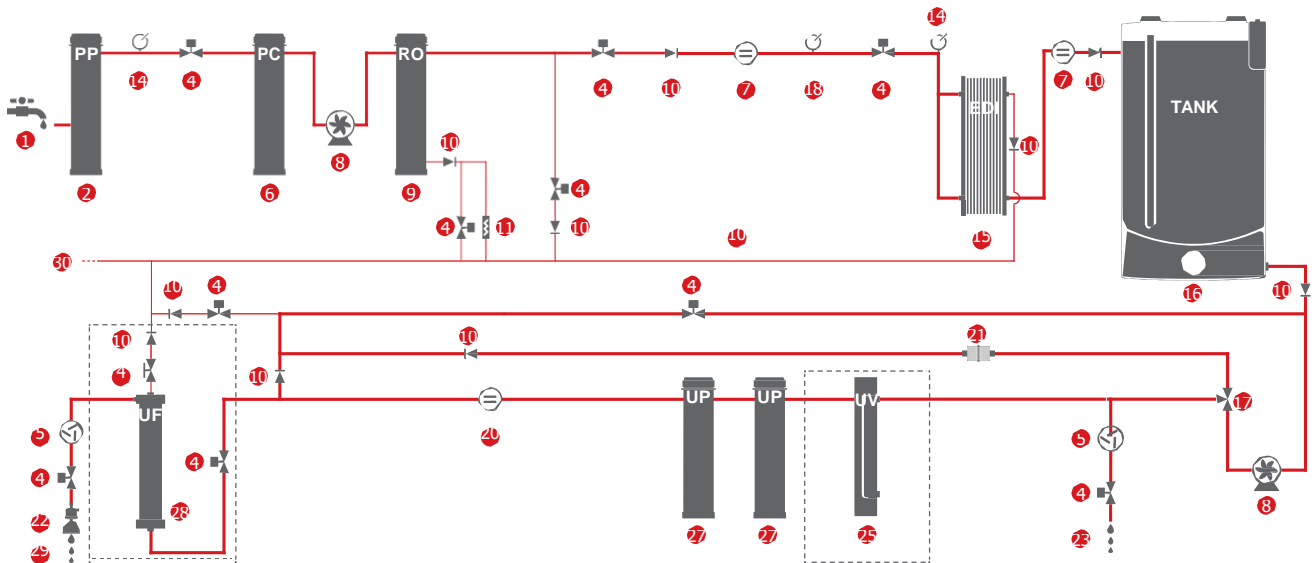
—Ultrapure water, EDI water

With tap water inlet, using the innovative human-computer interactive control system and 5-inch colorful resistive touch screen, integrating functions of Internet of Things (IoT) and cloud platform, embedding new purification cartridges with patented structure, stable and reliable single RO system, advanced EDI module and DI ion-exchange cartridges with larger capacity, equipping with built-in 1.8-liter pressure water tank and professional-grade pure water tank with 60-liter.

System output: 10, 20 liters/h. Maximum output per day is up to 480 liters. It can simultaneously produce ultrapure water (18.2MΩ.cm) and EDI water (Resistivity>10MΩ.cm, TOC<30ppb) with optimized running cost. The quality of pure water fully meets or exceeds the requirements of water quality standard specified by ASTM D1193-06, GB/T 11446.1-2013, GB/T 33087-2016, GB/T 6682-2008, CP, EP, USP, JP, CAP, CLSI, etc.



Flow Diagram



- | | | | |
|------------------------------|-----------------------|-----------------------|--------------------------|
| ① Feed Water | ⑨ RO cartridge | ⑰ Three wayvalve | ⑳ UV Component |
| ② PPre-treatment Cartridge | ⑩ One wayvalve | ⑱ High tension switch | ㉑ TOC Component |
| ③ Pressure sensor | ⑪ Flow Restrictor | ㉒ DI Cartridge | ㉓ UP Ultrapure cartridge |
| ④ Solenoid valve | ⑫ Pressure water tank | ㉔ Resistivity Sensor | ㉕ UF Cartridge |
| ⑤ Flow sensor | ⑬ RO Water Outlet | ㉖ Sanitization Block | ㉗ UP Water Outlet |
| ⑥ PC Pre-treatment Cartridge | ⑭ Low tension switch | ㉘ Final Filter | ㉙ Drain Outlet |
| ⑦ Conductivity Sensor | ⑮ EDI Component | ㉚ DI Water Outlet | |
| ⑧ Pump | ⑯ PE water tank | ㉛ Dispenser arm | |

HEUE Specifications

Name	Standard	Low TOC	Eliminating endotoxin	Synthesizing
Model	HEUE-10/20	HEUE-10/20UV	HEUE-10/20UF	HEUE-10/20UVF
Production rate ^[1]	10 series: 10L/hour, 20 series: 20L/hour			
Dispensing rate ^[2]	Up to 2 liters/minute	Up to 2 liters/minute	Up to 2 liters/minute	Up to 2 liters/minute
Ultrapure water quality ^[3]				
Resistivity (25°C) ^[4]	18.2 MΩ.cm	18.2 MΩ.cm	18.2 MΩ.cm	18.2 MΩ.cm
Conductivity (25°C)	0.055 μs/cm	0.055 μs/cm	0.055 μs/cm	0.055 μs/cm
TOC ^[5]	5 ppb ^[6]	2 ppb ^[7]	5 ppb ^[6]	2 ppb ^[7]
Particles ^[8]	<1/ml (>0.2μm)	<1/ml (>0.2μm)	<1/ml (>0.2μm)	<1/ml (>0.2μm)
) Bacteria ^[9]	<0.01CFU/ml	<0.01CFU/ml	<0.01CFU/ml	<0.01CFU/ml
Endotoxin ^[10]	N/A	N/A	<0.001EU/ml	<0.001EU/ml
RNases ^[10]	N/A	N/A	1 pg/ml	1 pg/ml
DNases ^[10]	N/A	N/A	5 pg/ml	5 pg/ml
Protease ^[10]	N/A	N/A	0.15 μg/ml	0.15 μg/ml
EDI water quality ^[3]				
Resistivity (25°C) ^[4]	>10 MΩ.cm	>10 MΩ.cm	>10 MΩ.cm	>10 MΩ.cm
Conductivity (25°C)	<0.1 μs/cm	<0.1 μs/cm	<0.1 μs/cm	<0.1 μs/cm
TOC ^[5]	≤ 30 ppb	≤ 30 ppb	≤ 30 ppb	≤ 30 ppb
Particles ^[8]	N/A	N/A	N/A	N/A
Bacteria ^[9]	N/A	N/A	N/A	N/A
RO^{2nd} water quality ^[3]				
Ion rejection rate	98%-99% (with new RO module)	98%-99% (with new RO module)	98%-99% (with new RO module)	98%-99% (with new RO module)
Organic rejection rate	>99% (MW>300 Dalton)	>99% (MW>300 Dalton)	>99% (MW>300 Dalton)	>99% (MW>300 Dalton)
Particles and bacteria rejection rate	>99%	>99%	>99%	>99%
Feed water requirements				
Water source type	Tap water	Tap water	Tap water	Tap water
Pressure	1-6 bar	1-6 bar	1-6 bar	1-6 bar
Temperature	5-40°C	5-40°C	5-40°C	5-40°C
Conductivity	<2000 μs/cm	<2000 μs/cm	<2000 μs/cm	<2000 μs/cm
Total hardness (In CaCO ₃)	<300 ppm	<300 ppm	<300 ppm	<300 ppm
TOC	<2000 ppb	<2000 ppb	<2000 ppb	<2000 ppb
Free chlorine	<3 ppm	<3 ppm	<3 ppm	<3 ppm
PH	4-10	4-10	4-10	4-10
Dissolved CO ₂	<30 ppm	<30 ppm	<30 ppm	<30 ppm
Power supply	100-240V , 50/60Hz	100-240V , 50/60Hz	100-240V , 50/60Hz	100-240V , 50/60Hz
Total Power	120W	120W	120W	120W
Dimension (L×W×H)	Main host: 370×623×600mm Tank: 392×518×772mm	Main host: 370×623×600mm Tank: 392×518×772mm	Main host: 370×623×600mm Tank: 392×518×772mm	Main host: 370×623×600mm Tank: 392×518×772mm
weight	Main host: about 29G Tank: about 16KG	Main host: about 29G Tank: about 16KG	Main host: about 29G Tank: about 16KG	Main host: about 29G Tank: about 16KG
Standard configuration	Main host 1 set All cartridges 1 set 60-liter water tank 1 set	Main host 1 set All cartridges 1 set 60-liter water tank 1 set	Main host 1 set All cartridges 1 set 60-liter water tank 1 set	Main host 1 set All cartridges 1 set 60-liter water tank 1 set

[1] Affected by inlet water quality, pressure, temperature and status of RO membrane [2] Affected by the tank status and terminal filter

[3] The following values are typical and may vary depending on the nature and concentration of feed water contaminants

[4] According to USP requirements, the resistivity can be displayed as a non-temperature-compensated value

[5] Affected by the type of organics

[6] Inlet TOC<1000ppb, follow professional operating procedures and correct sampling conditions

[7] Inlet TOC<50ppb, follow professional operating procedures and correct sampling conditions

[8] Equip with terminal microfilter and follow professional operating procedures and correct sampling conditions

[9] Equip with terminal microfilter and follow professional operating procedures and correct sampling conditions

[10] Equip with terminal ultrafilter and follow professional operating procedures and correct sampling conditions

HEDE series

Intelligent Integration Pure Water System

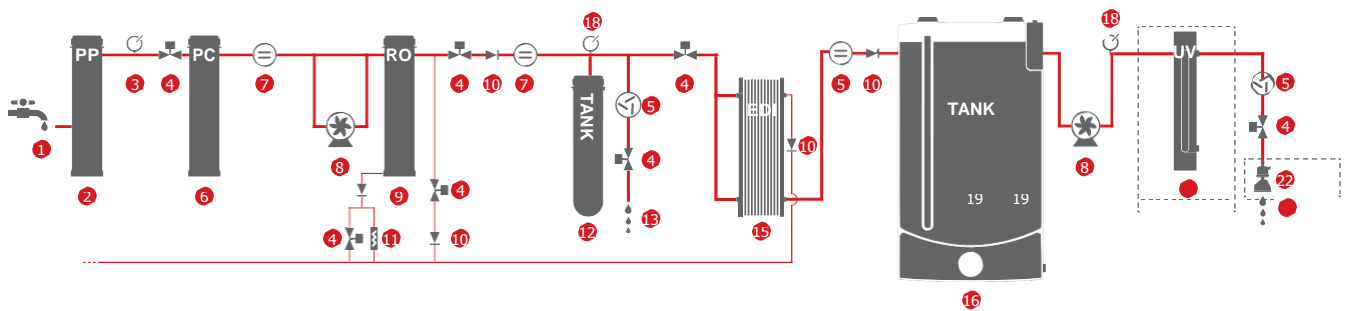
—EDI water, ,RO^{1st} water

With tap water inlet, using the innovative human-computer interactive control system and 5-inch colorful resistive touch screen, integrating functions of Internet of Things (IOT) and cloud platform, embedding new purification cartridges with patented structure, stable and reliable single RO system, and advanced EDI module, equipping with built-in 1.8-liter pressure water tank and professional-grade pure water tank with 60-liter.

System output: 10, 20 liters/h. Maximum output per day is up to 480 liters. It can simultaneously produce double RO water ($<5\mu\text{s}/\text{cm}$) and EDI water (Resistivity $>10\text{M}\Omega\cdot\text{cm}$, TOC $<30\text{ppb}$) with optimized running cost. The quality of pure water fully meets or exceeds the requirements of water quality standard specified by ISO3696 (Grade 2), GB/T 6682 (Grade 1), ASTM D1193 (Type II reagent water), JIS K0557, etc., also meets the purified water technical requirements of CP, EP, USP, JP and other national pharmacopoeia.



Flow Diagram



- | | | | |
|-----------------------------|-----------------------|-----------------------|--------------------------|
| ① Feed Water | ⑨ RO cartridge | ⑰ Three way valve | ⑳ UV Component |
| ② PP Pretreatment Cartridge | ⑩ One way valve | ⑱ High tension switch | ㉑ TOC Component |
| ③ Pressure sensor | ⑪ Flow Restrictor | ㉒ DI Cartridge | ㉒ UP Ultrapure cartridge |
| ④ Solenoid valve | ⑫ Pressure water tank | ㉓ Resistivity Sensor | ㉓ UF Cartridge |
| ⑤ Flow sensor | ⑬ RO Water Outlet | ㉔ Sanitization Block | ㉔ Water Outlet |
| ⑥ PC Pretreatment Cartridge | ⑭ Low tension switch | ㉕ Final Filter | ㉕ Drain Outlet |
| ⑦ Conductivity Sensor | ⑮ EDI Component | ㉖ DI Water Outlet | |
| ⑧ Pump | ⑯ PE water tank | ㉗ Dispenser arm | |

HEDE Specifications

Name	Standard	Eliminating bacteria and particle
Model	HEDE-10/20	HEDE-10/20UT
Production rate ^[1]		10 series: 10L/hour, 20 series: 20L/hour
Dispensing rate ^[2]	Up to 2 liters/minute	Up to 2 liters/minute
EDI water quality ^[3]		
Resistivity (25°C) ^[4]	>10MΩ.cm	>10MΩ.cm
Conductivity (25°C)	<0.1 μs/cm	<0.1 μs/cm
TOC ^[5]	≤ 30 ppb	≤ 30 ppb
Particles ^[8]	N/A	<1/ml (>0.2μm)
Bacteria ^[9]	N/A	<0.01CFU/ml
RO^{1st} water quality ^[3]		
Ion rejection rate	98%-99%(with new RO module)	98%-99%(with new RO module)
Organic rejection rate	>99% (MW>300 Dalton)	>99% (MW>300 Dalton)
Particles and bacteria rejection rate	>99%	>99%
Feed water requirements		
Water source type	Tap water	Tapwater
Pressure	1-6 bar	1-6 bar
Temperature	5-40°C	5-40°C
Conductivity	<2000 μs/cm	<2000 μs/cm
Total hardness (In CaCO ₃)	<300 ppm	<300 ppm
TOC	<2000 ppb	<2000 ppb
Free chlorine	<3 ppm	<3 ppm
PH	4-10	4-10
Dissolved CO ₂	<30 ppm	<30 ppm
Power supply	100-240V , 50/60Hz	100-240V , 50/60Hz
Total Power	120W	120W
Dimension (L×W×H)	Main host: 370×623×600mm Tank: 392×518×772mm	Main host: 370×623×600mm Tank: 392×518×772mm
weight	Main host: about 27G Tank: about 16KG	Main host: about 27G Tank: about 16KG
Standard configuration	Main host 1 set All cartridges 1 set 60-liter water tank 1 set	Main host 1 set All cartridges 1 set 60-liter water tank 1 set

[1] Affected by inlet water quality, pressure, temperature and status of RO membrane

[2] Affected by the tank status and terminal filter

[3] The following values are typical and may vary depending on the nature and concentration of feed water contaminants

[4] According to USP requirements, the resistivity can be displayed as a non-temperature-compensated value

[5] Affected by the type of organics

[6] Inlet TOC<1000ppb, follow professional operating procedures and correct sampling conditions

[7] Inlet TOC<50ppb, follow professional operating procedures and correct sampling conditions

[8] Equip with terminal microfilter and follow professional operating procedures and correct sampling conditions

[9] Equip with terminal microfilter and follow professional operating procedures and correct sampling conditions

[10] Equip with terminal ultrafilter and follow professional operating procedures and correct sampling conditions

HERS series

Intelligent Integration Double RO Water System

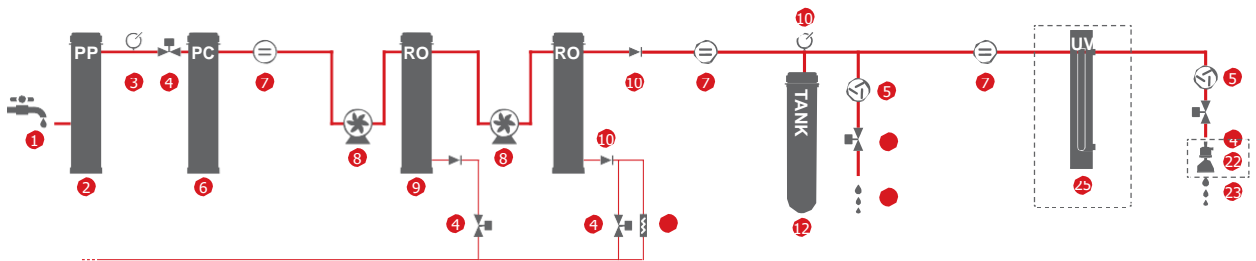
—RO^{2nd} water, RO^{1st} water

With tap water inlet, using the innovative human-computer interactive control system and 5-inch colorful resistive touch screen, integrating functions of Internet of Things (IOT) and cloud platform, embedding new purification cartridges with patented structure and rigorous double RO system, equipping with built-in 1.8-liter pressure water tank.

System output: 13, 25 liters/h. It can simultaneously produce single RO and double RO water. The ion rejection rate of single RO water is above of 98%, and the conductivity of double RO water is less than 5 μ s/cm. The quality of pure water fully meets or exceeds the requirements of water quality standard specified by GB/T 6682-2008 (Grade 3).



Flow Diagram



- | | | | |
|-----------------------------|-----------------------|-----------------------|--------------------------|
| ① Feed Water | ⑨ RO cartridge | ⑰ Three way valve | ⑳ UV Component |
| ② PP Pretreatment Cartridge | ⑩ One way valve | ⑱ High tension switch | ㉑ TOC Component |
| ③ Pressure sensor | ⑪ Flow Restrictor | ⑲ DI Cartridge | ㉒ UP Ultrapure cartridge |
| ④ Solenoid valve | ⑫ Pressure water tank | ⑳ Resistivity Sensor | ㉓ UF Cartridge |
| ⑤ Flow sensor | ⑬ RO Water Outlet | ㉑ Sanitization Block | ㉔ Water Outlet |
| ⑥ PC Pretreatment Cartridge | ⑭ Low tension switch | ㉒ Final Filter | ㉕ Drain Outlet |
| ⑦ Conductivity Sensor | ⑮ EDI Component | ㉓ DI Water Outlet | |
| ⑧ Pump | ⑯ PE water tank | ㉔ Dispenser arm | |

HERS Specifications

Name	Standard	Eliminating bacteria and particle
Model	HERS-13/25	HERS-13/25UT
Production rate ^[1]		13 series: 13 L/hour, 25 series: 25 L/hour
Dispensing rate ^[2]	Up to 2 liters/minute	Up to 2 liters/minute
RO^{1st} water quality ^[3]		
Ion rejection rate	>98% (with new RO module)	>98% (with new RO module)
RO^{2nd} water quality ^[3]		
Resistivity (25°C) ^[4]	>0.2 MΩ.cm	>0.2 MΩ.cm
Conductivity (25°C)	<5 μs/cm	<5 μs/cm
Organic rejection rate	>99% (MW>300 Dalton)	>99% (MW>300 Dalton)
Particles and bacteria rejection rate	>99%	>99%
Particles ^[8]	N/A	<1/ml (>0.2 μm)
Bacteria ^[9]	N/A	<0.01 CFU/ml
Feed water requirements		
Water source type	Tap water	Tap water
Pressure	1-6 bar	1-6 bar
Temperature	5-40°C	5-40°C
Conductivity	<2000 μs/cm	<2000 μs/cm
Total hardness (In CaCO ₃)	<300 ppm	<300 ppm
TOC	<2000 ppb	<2000 ppb
Free chlorine	<3 ppm	<3 ppm
PH	4-10	4-10
Dissolved CO ₂	<30 ppm	<30 ppm
Power supply	100-240V , 50/60Hz	100-240V , 50/60Hz
Total Power	120W	120W
Dimension (LxWxH)	Host: 370×623×600mm	Host: 370×623×600mm
weight	Main host: about 27KG	Main host: about 27KG
Standard configuration	Main host 1 set All cartridges 1 set 1.8-liter pressure water tank 1 set	Main host 1 set All cartridges 1 set 1.8-liter pressure water tank 1 set

[1] Affected by inlet water quality, pressure, temperature and status of RO membrane

[2] Affected by the tank status and terminal filter

[3] The following values are typical and may vary depending on the nature and concentration of feed water contaminants

[4] According to USP requirements, the resistivity can be displayed as a non-temperature-compensated value

[5] Affected by the type of organics

[6] Inlet TOC<1000ppb, follow professional operating procedures and correct sampling conditions

[7] Inlet TOC<50ppb, follow professional operating procedures and correct sampling conditions

[8] Equip with terminal microfilter and follow professional operating procedures and correct sampling conditions

[9] Equip with terminal microfilter and follow professional operating procedures and correct sampling conditions

[10] Equip with terminal ultrafilter and follow professional operating procedures and correct sampling conditions

**ISO
3696**

**US Pharmacopoeia
GB/T 33087 2016**

Japan Pharmacopoeia

ISO9001

CLSI GB/T.11446 1-2013

ASTMD5196 ISO14001

**China Pharmacopoeia ASTM
GB/T 6682-2008 JIS K
0557**

**Eu Pharmacopoeia D1193
CE Quality Standard**

PRODUCT

- Under management system of ISO9001 and ISO14001, in accordance with CE quality standards, we carry out product design, research & development and manufacturing to ensure long-term stability and reliability of quality.
- To help you meet industry specifications, we can assist in providing certificates of conformity, calibration certificates, quality certificates, performance reports, water quality compliance certificates and other supporting documents upon request.
- HE series - lab water system can produce pure water/ultrapure water to meet the requirements of the following organizations:
- Chinese Pharmacopoeia-CP, United States Pharmacopoeia-USP, European Pharmacopoeia-EP, Japanese Pharmacopoeia-JP, GB/T 33087-2016, GB/T 6682-2008, GB/T 11446.1-2013, ASTM D1193, ASTMD 5196, ISO 3696, CLSI, JIS K 0557.

SERVICE

We wholeheartedly serve, only for your full satisfaction.

With customer satisfaction as the service goal, to continue to create value for customers as the direction, to grow together with customers as the concept, based on professionalism, we are full of sincerity and enthusiasm, committing to providing customers with professional and perfect technical support and after-sales service. So that you can devote all your energy to focus on the work.

Our service include:

- 24 months product warranty (excluding filter consumables)
- On-site professional training of installation, use and maintenance.
- Regular engineer return visit service
- Free continuous optimization and upgrading service of product life cycle.
- Professional and rigorous 3Q(IQ/OQ/PQ) verification documentation and verification services in both English and Chinese, to help you meet compliance requirements of GLP, GMP and cGMP.

Ordering Information

Host	HEU-20	Intelligent integration ultrapure water system,20L/h, Standard, Ultrapure water, high pure water
	HEU-40	Intelligent integration ultrapure water system,40L/h, Standard, Ultrapure water, high pure water
	HEU-60	Intelligent integration ultrapure water system,60L/h, Standard, Ultrapure water, high pure water
	HEU-20UV	Intelligent integration ultrapure water system,20L/h, Low TOC, Ultrapure water, high pure water
	HEU-40UV	Intelligent integration ultrapure water system,40L/h, Low TOC, Ultrapure water, high pure water
	HEU-60UV	Intelligent integration ultrapure water system,60L/h, Low TOC, Ultrapure water, high pure water
	HEU-20UF	Intelligent integration ultrapure water system,20L/h, Eliminating endotoxin, Ultrapure water, high pure water
	HEU-40UF	Intelligent integration ultrapure water system,40L/h, Eliminating endotoxin, Ultrapure water, high pure water
	HEU-60UF	Intelligent integration ultrapure water system,60L/h, Eliminating endotoxin, Ultrapure water, high pure water
	HEU-20UVF	Intelligent integration ultrapure water system,20L/h, Synthesizing, Ultrapure water, high pure water
	HEU-40UVF	Intelligent integration ultrapure water system,40L/h, Synthesizing, Ultrapure water, high pure water
	HEU-60UVF	Intelligent integration ultrapure water system,60L/h, Synthesizing, Ultrapure water, high pure water
	HED-20	Intelligent integration pure water system,20L/h, Standard, High pure water, RO ^{1st} water
	HED-40	Intelligent integration pure water system,40L/h, Standard, High pure water, RO ^{1st} water
	HED-60	Intelligent integration pure water system,60L/h, Standard, High pure water, RO ^{1st} water
	HED-20UT	Intelligent integration pure water system,20L/h, Eliminating bacteria and particle, High pure water, RO ^{1st} water
	HED-40UT	Intelligent integration pure water system,40L/h, Eliminating bacteria and particle, High pure water, RO ^{1st} water
	HED-60UT	Intelligent integration pure water system,60L/h, Eliminating bacteria and particle, High pure water, RO ^{1st} water
	HEUS-13	Intelligent integration ultrapure water system,13L/h, Standard, Ultrapure water, high pure water
	HEUS-25	Intelligent integration ultrapure water system,25L/h, Standard, Ultrapure water, high pure water
	HEUS-13UV	Intelligent integration ultrapure water system,13L/h, Low TOC, Ultrapure water, high pure water
	HEUS-25UV	Intelligent integration ultrapure water system,25L/h, Low TOC, Ultrapure water, high pure water
	HEUS-13UF	Intelligent integration ultrapure water system,13L/h, Eliminating endotoxin, Ultrapure water, high pure water
	HEUS-25UF	Intelligent integration ultrapure water system,25L/h, Eliminating endotoxin, Ultrapure water, high pure water
	HEUS-13UVF	Intelligent integration ultrapure water system,13L/h, Synthesizing, Ultrapure water, high pure water
	HEUS-25UVF	Intelligent integration ultrapure water system,25L/h, Synthesizing, Ultrapure water, high pure water
	HEDS-13	Intelligent integration pure water system,13L/h, Standard, High pure water, RO ^{2nd} water
	HEDS-25	Intelligent integration pure water system,25L/h, Standard, High pure water, RO ^{2nd} water
	HEDS-13UT	Intelligent integration pure water system,13L/h, Eliminating bacteria and particle, High pure water, RO ^{2nd} water
	HEDS-25UT	Intelligent integration pure water system,25L/h, Eliminating bacteria and particle, High pure water, RO ^{2nd} water
	HEUE-10	Intelligent integration ultrapure water system,10L/h, Standard, Ultrapure water, EDI water
	HEUE-20	Intelligent integration ultrapure water system,20L/h, Standard, Ultrapure water, EDI water
	HEUE-10UV	Intelligent integration ultrapure water system,10L/h, Low TOC, Ultrapure water, EDI water
	HEUE-20UV	Intelligent integration ultrapure water system,20L/h, Low TOC, Ultrapure water, EDI water
	HEUE-10UF	Intelligent integration ultrapure water system,10L/h, Eliminating endotoxin, Ultrapure water, EDI water
	HEUE-20UF	Intelligent integration ultrapure water system,20L/h, Eliminating endotoxin, Ultrapure water, EDI water
	HEUE-10UVF	Intelligent integration ultrapure water system,10L/h, Synthesizing, Ultrapure water, EDI water
	HEUE-20UVF	Intelligent integration ultrapure water system,20L/h, Synthesizing, Ultrapure water, EDI water
	HEDE-10	Intelligent integration pure water system,10L/h, Standard, EDI water, RO ^{1st} water
	HEDE-20	Intelligent integration pure water system,20L/h, Standard, EDI water, RO ^{1st} water
HEDE-10UT	Intelligent integration pure water system,10L/h, Eliminating bacteria and particle, EDI water, RO ^{1st} water	
HEDE-20UT	Intelligent integration pure water system,10L/h, Eliminating bacteria and particle, EDI water, RO ^{1st} water	
HERS-13	Intelligent integration double RO water system,13L/h, Standard, RO2nd water, RO ^{1st} water	
HERS-25	Intelligent integration double RO water system,25L/h, Standard, RO2nd water, RO ^{1st} water	
HERS-13UT	Intelligent integration double RO water system,13L/h, Eliminating bacteria and particle, RO ^{2nd} water, RO ^{1st} water	
HERS-25UT	Intelligent integration double RO water system,25L/h, Eliminating bacteria and particle, RO ^{2nd} water, RO ^{1st} water	

Ordering Information

Cartridge	Item No	Product description		
	HPC101	Pretreatment cartridge A		
	HPC102	Pretreatment cartridge B		
	HPC302	RO ^{1st} module S2		
	HPC304	RO ^{1st} module S4		
	HPC306	RO ^{1st} module S6		
	HPC303	RO ^{1st} module F3		
	HPC305	RO ^{1st} module F5		
	HPC403	RO ^{2nd} module D3		
	HPC405	RO ^{2nd} module D5		
	HPC501	DI cartridge		
	HPC601	UP cartridge, standard		
	HPC602	UP cartridge, Low TOC		
	HPC700	Air filter for tank		
	HPC703	185&254nm double wavelength UV lamp		
	HPC702	254nm UV lamp		
	HPC709	UF ultrafiltration module		
HPC801	TF terminal microfilter			
HPC802	TF terminal microfilter			
HPC810	UF terminal ultrafilter			
Accessory	Item No	Product description	Item No	Product description
	TANK1018	1.8-liter pressure water tank	DISP2001	HiDis dispenser arm (independent), equipped with 2M connection kit
	TANK1015	15-liter pressure water tank	PWA7200	Automatic water softener (salt required)
	TANK1040	40-liter pressure water tank	PWA7010	Pretreatment filter for source water
	TANK1075	75-liter pressure water tank	PWA7011	PP cartridge for pretreatment filter (5 µm, 10 inch)
	TANK1100	100-liter pressure water tank	PWA7012	RS cartridge for pretreatment filter (10 inch)
	TANK1061	60-liter PE pure water tank, equipped with air filter and independent level control module with LCD display	PWA7501	Footswitch
	TANK1060	60-liter PE pure water tank, equipped with air filter	PWA7502	External leak sensor
	TANK1121	120-liter PE pure water tank, equipped with air filter and independent level control module with LCD display	PWA1301	Wall-mounted mounting bracket for XLE
	TANK1120	120-liter PE pure water tank, equipped with air filter		
Service	Item No	Product description		
	HPS51001	1 year extended warranty service (except for consumables)		
	HPS51003	3 year extended warranty service (except for consumables)		
	HPS52001	Verification documents in English		
	HPS53001	Basic verification service		
	HPS59001*	1-year, one-price all-inclusive maintenance agreement, including regular consumables replacement, maintenance and calibration		
	HPS59003*	3-year, one-price all-inclusive maintenance agreement, including regular consumables replacement, maintenance and calibration		

*On the basis of mutual confirmation of pure water consumption and feed water quality.

For more product details, please login: www.harmony-scientific.com or email to info@harmony-scientific.com