# WATER PURIFICATION CATALOGUE





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## Which system is best for you?

**Our Solution** 

**Water Quality** 

## **Typical applications**

- NE Equipment
- Plus P Equipment ASTM Type I
- SM Equipment ultrapure water
- Easy Series Equipment

**BOD** tests COD tests **DNA** microarrays Electrochemistry Electrophoresis Enzyme immunoassays GC (Gas chromatography) **GFAAS** (Graphite Furnace Atomic Absorption Spectrophotometry) HPLC (High Performance Liquid Chromatography) IC (Ion Chromatography) ICPAES (Inductively Coupled Plasma Atomic Emission Spectrometry) ICPMS (Inductively Coupled Plasma Mass Spectrometry)

 Plus E Equipment ASTM Type II high ultrapure water AS (atomic absorption spectrophotometry) Preparation of buffers and media electrophysiology FAAS (flame atomic absorption spectrophotometry) Feed to ultrapure water systems General chemistry Histology Hydrogen generators Microbiological analysis pH measurement IHC (Immunohistochemistry) IVF (in vitro fertilization) LC-MS (liquid chromatography mass spectrometry) Kjeldahl analysis MALDI - ToF Mammalian and bacterial cell culture Northem and Southerm blotting PCR Plant tissue culture Qualitative analyzes Últratrace analysis Weather Transfer Enzyme immunoassays DNA microarrays

Pharmaceutical (according to US and European Pharmacopeias) RIA / ELISA Sample Dilution and Reagent preparation Spectrophotometry Stability chambers Surface tension experiments Water analysis Weatherometers

• ROB / ROE

Equipment

CAP/CLSI Type I high ultrapure water Automated clinical analyzers (Biochemistry, Immunochemistry and Immunology)

#### REF: EAID00026 (VERSIÓN 15 UV) - EAID00040 (VERSIÓN 15 VF)

## **EQUIPMENT NE**

The NE system is a water purification system that integrates electrodeionization technology to produce ultrapure water. EDI technology provides benefits including low power consumption, lower maintenance cost, better ion exchange, and no particulate or organic contamination.

## **TYPICAL SCIENTIFIC APPLICATIONS**

- IPC-MS (Inductively Coupled Plasma Mass Spectrometry)
- Molecular biology techniques
- Ultratrace analysis
- Electrochemistry
- Electrophoresis
- GFAAS (Graphite Furnace Atomic Absorption Spectrophotometry)
- HPLC
- IC (ion chromatography)
- ICP-AES (Inductively Coupled Plasma Atomic Emission Spectrometry)
- Bacterial and mammalian cell culture
- Molecular biology
- plant tissue culture
- Qualitative analysis

## Configuration

	INC
Pretreatment module	0
High pressure pump	0
Inverse osmosis	0
Dual Wavelength UV Lamp	0
Ultrapurification cartridge	0
Ultrafiltration cartridge	0
EDI module	0
Point of use filter	0
30L storage tank	0
Air filter net for tank	0
UV Lamp Sterilizer for Water Tank	0
Remote water dispenser with color screen	0
TOC monitoring module	/

### WHAT BENEFITS CAN YOU GET?

High efficiency constant removal of charged organic ions and small MW (Resistivity > 10  $M\Omega$  - cm) No exchange of used resins No regeneration chemicals Low energy consumption Typical < 10 watt bulb Low operation and low maintenance







#### REF: EAID00026 (VERSIÓN 15 UV) - EAID00040 (VERSIÓN 15 VF)



- 3 Pretreatment module
- 4 Delivery pump
- 5 Reverse osmosis module
- 8 Dual Wave UV Cartridge
- 9 Ultrapurification module
- 10 Ultrafiltration cartridge
- 13 EDI module

Model	NE System		
Feed water requirement			
Font	Tap water		
Conductivity*	<2000us/cm		
Hardness**	<450ppm as CaCO3		
Pressure	0.05~0.5MPa(7-72psi)		
Temperature	5-40C		
Purification water (Type III)			
ion rejection	>95%		
bacteria rejection	>99%		
Conductivity	1~20us/cm		
productivity rate	30L/h		
High quality purification water (Type II)			
Resistivity at 25C	10MΩ.cm		
TOC level	<30ppm		
Organic Dissolution	<0.1ppm		
Productivity rate	15L/h		
Ultrapurification Water (Type I)			
Resistivity at 25C	18.2MΩ.cm		
Conductivity at 25C	0.055us/cm		
OCD level***	1~5ppb		
Endotoxin (pyrogens)****	<0.001EU/ml		
Particles (>0.02um)	<1pc/ml		
Bacteria***	<0.1 cfu/mL		
Rnase / Dnase **	Free		
Manual Dosing Flow Rate	1.5~2.0L/min		
Automatic dispensing volume	100~60000ml		
Electrical Requirements			
Electric tension	110V/220V±10%		
Electrical frequency	50Hz/60Hz		
Packaging information			
Net weight			
Main units	35kg		
Water tank (30L)	7kg		
External dimensions (W x D x H)			
main units	315x525x570mm		
Water tank (30L)	380x380x595mm		
Shipping weight			
Main units	37kg		
Water tank (30L)	15kg		
Shipping Dimensions (W x D x H)			
Main units	525x610x770mm		
Water tank (30L)	520x440x615mm		

#### **IMPORTANT INFORMATION**

\*#If the quality of the feed water is poor (conductivity > 1000us/cm), a reinforced pretreatment module and an RO-2 type are recommended \*\*When feed water hardness is high (>450ppm as CaCO3), 0.5T water softening is recommended. \*\*\*It is necessary to adopt a dual wave UV module. It also depends on the need for water, recommended TOC <30ppb. \*\*\*\*It is necessary to adopt an ultrafiltration module. Feed water should be satisfied as above.



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#### REF: EAID00041

## **EQUIPMENT PLUS-P**

This Plus-P Water Purifier is a new generation ultrapure water system, which can produce pure water and ultrapure water by using tap water as feed or directly produce ultrapure water by using RO water and distilled water as feed.

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- 1 Electromagnetic valves
- 2 Conductivity sensor
- 3 Column pretreatment
- 4 Booster pump
- 5 RO membrane

- 6 Multifunctional tank7 Water feed pump
- 8 UV lamp
- 9 Column ultrapure 10 Columne ultrafiltration
- 11 Terminal filter
  12 Movable dispenser
  13 Online OCD Monitor
  14 EDI module

Model	EAID00041		
Feed water requirement			
Inlet water quality	Pure water		
Pressure	0.1~0.8 MPa		
Temperature	5-40 ° C		
Ultrapure Water Indicator			
Resistivity	18 MΩ.cm		
Conductivity	<0.1 unit / ml		
Particle number (>0.22ul)	<0.1 cfu / ml		
OCD	< 5 ppb		
Endotoxins	<0.001 EU / ml		
Other parameters			
Size	314 x 525 x 570 mm		

#### Display

7-inch colorful control screen, easy to operate, can display multiple parameters, including water tank liquid level conductivity/resistivity, temperature, time, etc.

#### **EDI module**

Self-developed and produced EDI module, stable preparation of high-purity water, no need to replace resin frequently, and reduced maintenance costs in the later period.

#### Pretreatment column design

Disposable integrated design pretreatment column, double column filling, one-time hot pressing, no glue, no leakage, long service life.

Large ion exchange capacity, with this improvement of ion exchange efficiency can optimize the processing capacity of the purification column.

#### **Resistivity sensor**

High-precision multi-channel sensor with constant resistivity of 0.01 with temperature compensation and regular calibration.

#### **Inverse osmosis**

The reverse osmosis system adopts flow limiting design to effectively protect the reverse osmosis membrane.

#### **Multi-function design**

It has the functions of linking with the water outlet to record the use time of the ultraviolet lamp, taking ultrapure water and pure water qualitatively and quantitatively, and alarming the replacement of consumables.

#### **Supplies management function**

The consumables come with RFID radio frequency identification signal, with consumables management function.





- 1 Solenoid valve
- 2 Conductivity sensor
- 3 Pretreatment module
- 4 Impulsion pump

5 Internal Osmosis Module

- 6 Water tank
- 7 Ball valve
- 8 Single Wave UV Cartridge

9 Purification module10 Ultra-Purification Module11 Microfiltration cartridge12 Point of use filter

Model	EAID00027		
Туре	Easy-15 / Easy -30		
Feed water requirement			
Font	Tap Water		
Conductivity*	<400us/cm		
Hardness**	<450ppm as CaCO3		
Pressure	0.1~0.5MPa(14-72psi)		
Temperature	5-40C		
Purification water (Type III)			
lon rejection	>95%		
Bacteria rejection	>99%		
Conductivity	20us/cm		
Productivity rate	15L/h 30L/h		
High quality purification water (Type II)			
Resistivity at 25C	10MΩ.cm		
TOC level	<30ppm		
Organic Dissolution	<0.1ppm		
Ultrapurification Water (Type I)			
Resistivity at 25C	17~18.2MΩ.cm		
flow rate	1~1.5L/min		
TOC level (optional with UV)	<30ppb		
Particles (>0.02um)	<1pc/ml		
Bacteria	<1cfu/ml		
Electrical Requirements			
Electric tension	110V/220V±10%		
Electrical frequency	50Hz/60Hz		
Packaging information			
Net weight			
Main units	38kg		
Water tank (-/20L)	N/A		
External dimensions (W x D x H)			
Main units	390x540x500mm		
Water tank (30L)	NA		
Shipping weight			
Main units	51kg		
Water tank (-/20L)	N/A		
Shipping Dimensions (W x D x H)			
Main units	515x660x750mm		
Water tank (-/20L)	N/A		

#### **IMPORTANT INFORMATION**

\*If the quality of the feed water is poor (conductivity >1000us/cm), the reinforced pretreatment module of class III and type RO-2 is recommended. \*\*When feed water hardness is high (>450ppm as CaCO3), a 0.5T water softening tank is recommended.



#### REF: EAID00016

## **SM WATER PURIFIER EQUIPMENT** Ultra pure water instantly!

Many labs need ultrapure water every day, for HPLC or other instrumental analyses, but only in small volumes.

However, this is no reason to do without freshly prepared professional ultrapure water and buy expensive HPLC water.

If we draw small volumes from a HPLC water container several times a day, the water quality and TOC value may no longer meet the required specifications. Ultrapure water is no longer ultrapure!





- Selenoid valve
  Conductivity sensor
  Pre-treatment module
- 4 Discharge pump
- 5 Internal Osmosis Module
- 6 Pump Valve

- 7 Dual wave UV cartridge8 Purification module9 Ultra-purification module10 Micro/ultra filtration cartridge11 Point of use filter
- 12 Internal water tank (6l.)

Model	EAID00016		
Feed water requirement			
Font	Water Tap		
Conductivity*	<400us/cm		
Hardness**	<450ppm as CaCO3		
Pressure	0.1-0.5MPa(14-72psi)		
Temperature	5-40C		
Purification water (Type III)			
ion rejection	>95%		
bacteria rejection	>99%		
Conductivity	<20us/cm		
productivity rate	15L/h		
Ultrapurification water (Type I)			
Resistivity at 25C	18.2MΩ.cm		
Conductivity at 25 C	0.055us/cm		
TOC level	1~5ppb		
Endotoxin (pyrogens)	N/A		
Particles (£0.02um)	<1 pc/ml		
Bacteria***	<1 cfu/ml		
Rnase / Dnase**	N/A		

## Configuration

SM system	UV/UF
Pretreatment module	0/0
High pressure pump	0/0
Inverse osmosis	0/0
Dual Wavelength UV Lamp	0/0
Ultrapurification cartridge	0/0
Microfiltration cartridge	0/-
Ultrafiltration cartridge	-/0
Point of use filter	0/0
Internal water tank	0/0

Ultrapurification Water (Type I)				
Manual Dosing Flow Rate	1.2~1.5L/min			
Automatic dispensing volume	100~60000ml			
Electrical requirements				
Electrical voltage	110V/220V±10%			
Electrical frequency	50HZ/60HZ			
Packaging information				
Net weight				
Main units	32kg			
Water tank	N/A			
External dimensions (W x D x H)				
Main units	315x525x570mm			
Water tank	N/A			
Shipping weight				
Main units	45kg			
Water tank	N/A			
Shipping Dimensions (W x D x H)				
<i>M</i> ain units	525x610x770mm			
Water tank	N/A			

#### IMPORTANT INFORMATION

\*If the quality of the feed water is poor (conductivity > 1000 us/cm), a reinforced pretreatment module and type RO-2 is strongly recommended.

\*\*When feed water hardness is high (>450ppm as CaCO3), a 0.5T water softener is recommended. \*\*\*It is necessary to adopt a dual wave UV module. Also dependent on feed water, recommended feed TOC <300 ppb



#### REF: EAID00028





Solenoid valve
 Conductivity sensor
 Pretreatment module
 Imulsion pump
 Internal Osmosis Module

6 Edit Module

- 7 Water tank
- 8 Remote water dispenser
- 9 Ultraviolet lamp

## **PLUS E EQUIPMENT**

Provides complementary water purification techniques, including state-of-theart electrodeionization technology, ensuring the supply of pure Type II water of consistent and reliable quality.

> Model EAID00028 Type Feed water requirement Water Tap Font Conductivity\* <400us/cm Hardness\*\* <450ppm as CaCO3 0.1~0.5MPa(14-72psi) Pressure Temperature 5-40C Purification water (Type III) lon rejection <20us/cm Bacteria rejection Conductivity 30L/h Productivity rate High quality purification water (Type II) Resistivity at 25C 10MΩ.cm TOC level <30ppm **Organic Dissolution** <0.1ppm 15L/h Productivity rate **Electrical requirements** Electric tension 110V/220V±10% Electrical frequency 50Hz/60Hz **Packaging information** Net weight 32kg Main units Water tank (30L) 7kg External dimensions  $(W \times D \times H)$ Main units 315x525x570mm Water tank (30L) 380x380x595mm Shipping weight Main units 45kg Water tank (30L) 15kg Shipping Dimensions (W x D x H) 525x610x770mm Main units Water tank (30L) 520x440x615mm

#### **IMPORTANT INFORMATION**

\*If the quality of the feed water is poor (conductivity >1000us/cm) Class 3 reinforced pretreatment module and type RO-2 are strongly recommended \*\*When feed water hardness is high (>450ppm as CaCO3), a 0.5T water softening tank is recommended







## **DESIGNED FOR CLINICAL ANALYZERS**

The ROB and Pureforce ROE systems are designed to provide water to clinical analyzers for the clinical laboratory reagent water standard. Our product range offers consistent water quality feeding a single clinical analyzer, large automated analyzers and multiple analyzers in a distribution loop.

To help you choose the most suitable system for your clinical analyzer requirements, we have developed the following reference table. Our team works alongside project managers, installation engineers, facility managers, and clinical scientists to provide help and expertise at every stage.

	Water quality	Water quality	Maximum water rate	Maximum Flow	Maximum power loop length
Modelo	(MΩ - cm)	(CFU/ml)	(liters/hr)	(liters/hr)	(m)
EAID00017	>10	<1	15,30	120~150	/
EAID00030	>10	<1	50,100	120~180	20~30
EAID00029	>10	<1	70,100	120~180(500~800*)	50

# **ROB / ROE**

The ROB system can produce CAP/CLSI Type I reagent water for the clinical analyzer. Allows direct connection and online operation. Independent manual control water outlet can be used for additional applications.



### **Maximum Compatibility**

ROB water purification systems can be used to prepare pure water solution for a series of biochemical analyzers, including TOSHIBA, OLYMPUS, HIATCHI, ROCHE, MINDRAY, etc.

In addition, our specialists are always available to answer any questions, as well as to provide you with friendly and expert advice on choosing the most suitable water purification systems.

#### Special emphasis on bacterial containment Recirculation always ensures a desirable pure water quality. UV, microfiltration technology and easy disinfection ensure optimum bacterial purity of less than 1 CFU/mL. **Bypass Function** An emergency bypass prevents downtime by providing an uninterrupted supply of pure water to the analyzer at all times. We understand that downtime in the clinical laboratory cannot be afforded. ROB-**ROB** Solenoid valve 1 Conductivity sensor 2 3 Pretreatment module Impulsion pump 4 Reverse osmosis module 5 6 Water tank 7 Ball valve **SMART ROE** Dual Wave UV Cartridge 8 9 Purification module 10 Micro-filtration cartridge 11 EDI module 12 13L purification resin tank **ROB-B**

Model	Smart ROB	Smart ROF	ROB-B
Type	Smart ROB 15/30	Smart ROE 70/100	Smart ROB 15/30
Productivity ratio	151 /h. 301 /h	701 /h . 1001 /h . 1501 /h	50L/h , 100L/h, 200L/h
Feed water requirement			
Font	Agua de grifo	Agua de grifo	Agua de grifo
Conductivity*	<2000us/cm	<400us/cm	<2000us/cm
Hardness**	<450ppm as CaCO3	<450ppm as CaCO3	<450ppm as CaCO3
Pressure	0.1~0.5MPa(14-72psi)	0.1~0.4MPa(14-58psi)	0.1~0.5MPa(14-72psi)
Temperature	5-40C	5-40C	5-40C
Ultrapurification Water (Type II)			
Resistivity at 25C	<u>&gt;</u> 10MΩ.cm	<u>&gt;</u> 10MΩ.cm	<u>&gt;</u> 10MΩ.cm
TOC level	<30ppb	<30ppb	<30ppb
Dissolved organic	<0.1ppm	<0.1ppm	<0.1ppm
Particles (>0.02um)	<1pc/ml	<1pc/ml	<1pc/ml
Bacteria	<1cfu/ml	<1cfu/ml	<1cfu/ml
Flow rate	1.0~1.5L/min	1.0~1.5L/min	1.5~2.0L/min
electrical requirements			
Electric tension	110V/220V±10%	110V/220V±10%	110V/220V±10%
Electrical frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
Packaging information			
Net weight			
Main units	25kg	84/90kg	90/94kg
Water tank	5kg	N/A	N/A
External dimensions (W x D x H)			
Main units	315x525x570mm	650x660x1260mm	650x660x1260mm
Water tank	380x380x595mm	N/A	N/A
Shipping weight			
Main units	37kg	106/112kg	112/116kg
Water tank	13kg	N/A	N/A
Shipping Dimensions (W x D x H)			
Main units	525x610x770mm	780x810x1400mm	780x810x1400mm
Water tank	520x440x615mm		510x430x895mm

\*If the quality of the feed water is poor (conductivity > 1000 us/cm), the reinforced pretreatment module class 3 and type RO-2 is strongly recommended. \*\*When feed water hardness is high (>450ppm as CaCO3), a 0.5T water softening tank is recommended.







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