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# MIRAE ST

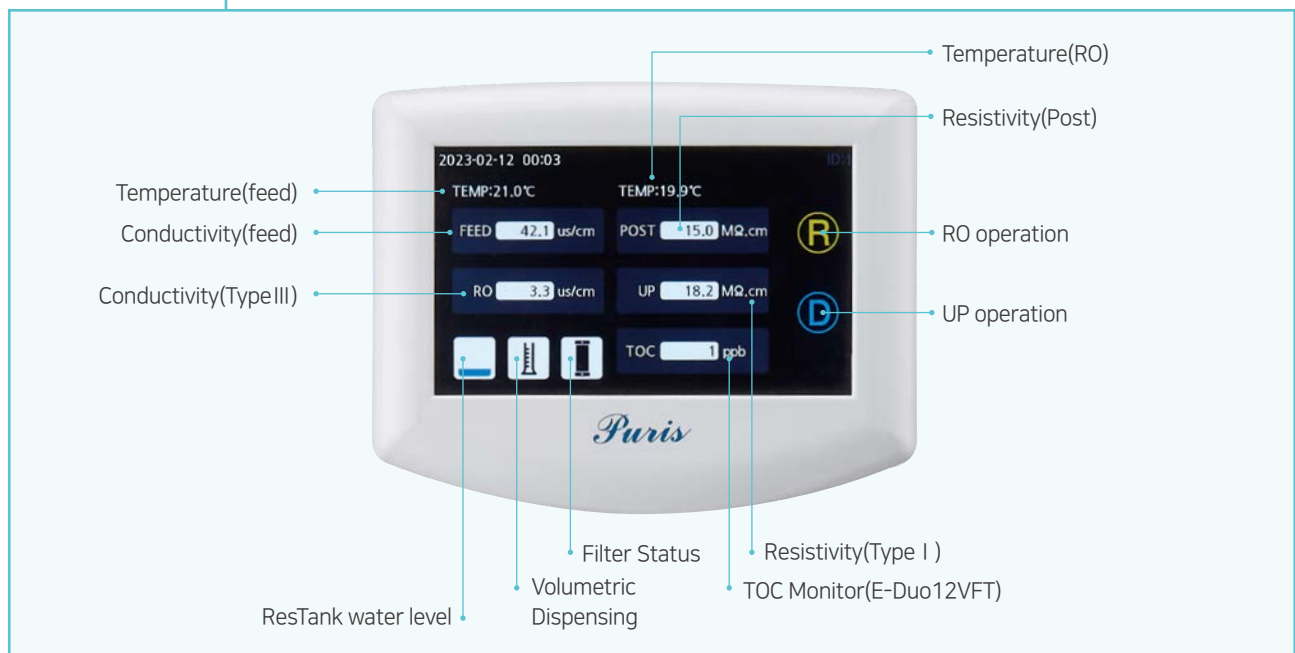


# Puris E-Duo series

A world-class product is manufactured with the latest IoT technology and know-how from the acquisition of South Korea's first NEP certification

## Features

- Producing pure and ultrapure water that meets ASTM, ISO3696, CLSI, EP and USP regulations.
- 5-inch touch display and intuitive icons enable convenient system setup and control.
- Dispensing all type of water through the dispenser (M-POU)
- Depending on a desired application, a final filter can be selected and installed.
- By attaching an RFID tag to each filter, the filters can be effectively maintained, which allows the best water quality to be preserved.
- The auto-calibration function maintains the optimal state of the device.
- An alarm is displayed when water leakage occurs inside the system.
- You can check the water quality of the final purified water when it is put in water.
- Data can be saved to a USB drive without a separate printer.
- TOC Mor (E-Duo 12 VFT)
- Volumetric dispensing



# E-Duo Water Systems

## Specification

Model		E-Duo13 UV (White LED)	E-Duo13 VF (Yellow LED)	E-Duo12 VF (Green LED)	E-Duo12 VFT (Blue LED)	
Production flow rate (up to)	Type I	2.0L/min	2.0L/min	2.0L/min	2.0L/min	
	Type II	-	-	2.0L/min	2.0L/min	
	Type III	22L/hr	22L/hr	22L/hr	22L/hr	
Quality	Resistivity	Type I	18.2MΩ·cm	18.2MΩ·cm	18.2MΩ·cm	
		Type II	-	-	5-15MΩ·cm	5-15MΩ·cm
	Conductivity	Type III	1-20μs/cm	1-20μs/cm	1-20μs/cm	1-20μs/cm
		Type I	<2ppb	<2ppb	<2ppb	<2ppb
	TOC	Type II	-	-	<30ppb	<30ppb
		Type I	<1EU/mL	<1EU/mL	<1EU/mL	<1EU/mL
	Particles (0.2μm)	Type II	-	-	<1EU/mL	<1EU/mL
		Type I	<0.01CFU/mL	<0.01CFU/mL	<0.01CFU/mL	<0.01CFU/mL
	Bacteria	Type II	-	-	<0.01CFU/mL	<0.01CFU/mL
		Type I	-	<0.001EU/mL	<0.001EU/mL	<0.001EU/mL
	*Endotoxin	Type II	-	-	<0.001EU/mL	<0.001EU/mL
		Type I	-	<1pg/mL	<1pg/mL	<1pg/mL
	*Rnase	Type II	-	-	<1pg/mL	<1pg/mL
		Type I	-	<5pg/mL	<5pg/mL	<5pg/mL
	*Dnase	Type II	-	-	<5pg/mL	<5pg/mL

※ With Duo-UF Filter

## Configuration

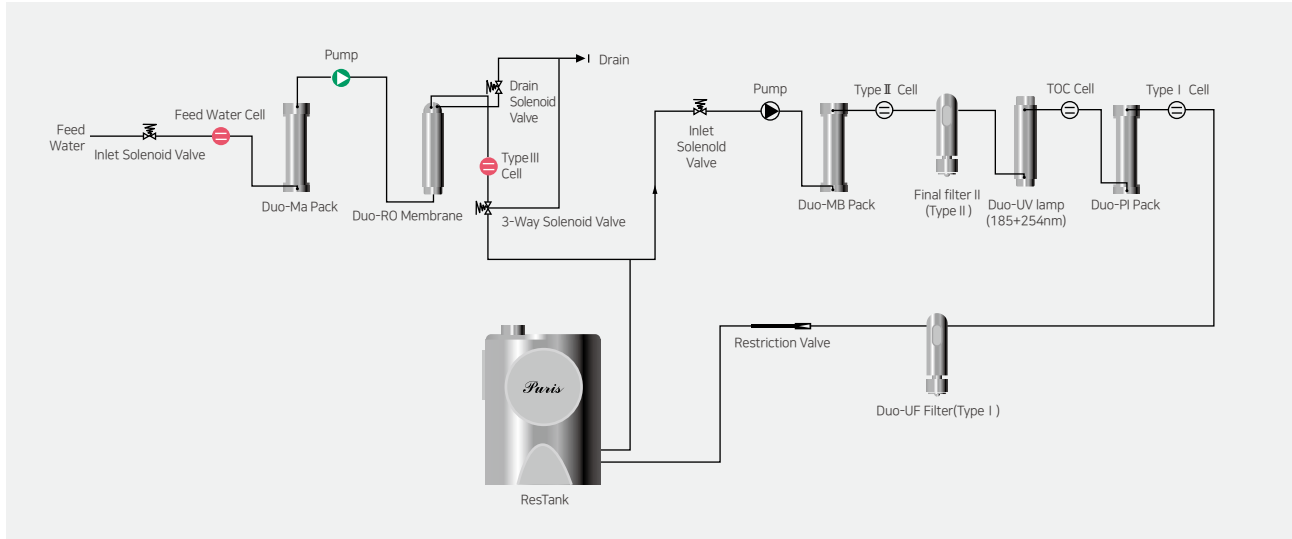
Model	E-Duo13 UV (White LED)	E-Duo13 VF (Yellow LED)	E-Duo12 VF (Green LED)	E-Duo12 VFT (Blue LED)
<b>Electrical Power</b>	• 100-240v , 50-60Hz,110W			
<b>Dimension</b>	• Main : W310*D460*H510mm • M-POU : W280*D400*H775mm			
	• ResTank 35L : W270*D500*H730mm • ResTank 75L : W315*D580*H810mm			
<b>Operating Weight</b>	• Main : 28kg	• M-POU : 5kg		
<b>Standard Accessories</b>	• Duo-MA Pack	• Duo-RO Membrane	• Duo-PI Pack	
	• Duo-MB Pack	• Duo-UV lamp (185+254nm)		
	• Final filter I	• Duo-UF Filter	• Final filter II • Duo-UF Filter	• Final filter II • Duo-UF Filter
	• Operation Manual	• Power Cable	• Tubing Kit	
<b>Optional Accessories</b>	• ResTank 35L	• ResTank 75L	• USB	

## Application

<b>Type I (UP)</b>	<ul style="list-style-type: none"> <li>• HPLC, LC/MS, GC, AA, ICP/MS,ILC</li> <li>• Cleaning Water for D-RAM &amp; Display</li> <li>• Cell Culture, Genetic Engineering, Electrophoresis PCR DNA Sequencing</li> </ul>
<b>Type II(DI)</b>	<ul style="list-style-type: none"> <li>• Preparation of reagents</li> <li>• Feed for Autoclave,Hydrogen Generator,Clinical Analyzers</li> </ul>
<b>Type III/IV(RO)</b>	<ul style="list-style-type: none"> <li>• Feed ultrapure water systems</li> <li>• Feed washing machine</li> </ul>

# E-Duo Water Systems

## Flow Diagram



## Configuration



※ Configuration may vary depending on the model.

## Accessories

Description	Item NO.	Description	Item NO.
Duo-MA Pack	27101	Duo-UF Filter	27304
Duo-RO Membrane	27102	Final filter I	20304
Duo-MB Pack	27202	Final filter II	27206
Duo-PI Pack	27303	Duo -Metal filter	27305
Duo-UV lamp, 185+254nm	27301	IQ&OQ Validation	30007

## Ultrapure (Type1)

### E-Duo 12 VF/VFT



**From Tap water** Type 1, 2 and 3  
**Flow rate (up to)** Type 1, 2 - 2L/min  
 Type 3 - 22L/hr

### E-Duo 13 UV/VF



**From Tap water** Type 1, 3  
**Flow rate (up to)** Type 1 - 2L/min  
 Type 3 - 22L/hr

### Evo-CB Dio 10/20/UV/VF



**From Tap water** Type 1 and 3  
**Flow rate (up to)** Type 1 - 2L/min  
 Type 3 - 10, 20L/hr

## Pure (Type2)

### Evo-ROP Dico 10/20



**From Type 2,3** Type 2, 3  
**Flow rate (up to)** Type 2 - 10,20L/hr  
 Type 3 - 10,20L/hr

### Application

- Preparation of reagents, Tissue dyeing, Buffers
- Feed water for Autoclave, Clinical analyzers, Hydrogen generator
- General laboratory tasks, Microbiological culture media
- Glassware rinsing

## High-Flow water Systems

### Excel-UP Med 7/UV



**From Type 2,3** Type 1  
**Flow rate (up to)** Type 1 - 7L/min

### Excel-Post Med 50/70/100



**From Tap water** Type 2, 3  
**Flow rate (up to)** Type 2, 3 - 50,70,100L/hr

### Excel-RO Med 50/70/100



**From Tap water** Type 3  
**Flow rate (up to)** Type 3 - 50,70,100L/hr

### Application

- Feed water of ultrapure water system
- Clinical analyzer, Semiconductor wafer rinsing
- Biochemistry analyzer

### Expe-CB Ele 10/20/UV



**From Tap water** Type1 and 3  
**Flow rate (up to)** Type 1 - 2L/min  
 Type 3 - 10,20L/hr

### Evo-UP Dio BA/UV/VF/UT



**From Tap water** Type 1, 2, 3  
**Flow rate (up to)** Type 1 - 2L/min

## Application

- AA, GFAA, ICP-MS, Chromatography, Cell culture
- Buffer manufacturing
- Molecular biology
- DNA microarray
- Electrophoresis
- HPLC, UPLC, LC-MS, GC
- PCR, DNA sequencing

## Pure (Type3)

### Evo-RO Dico 10/20



**From Tap water** Type 3  
**Flow rate (up to)** Type 3 - 10, 20L/hr

### Expe-RO Ele 10/20



**From Tap water** Type 3  
**Flow rate (up to)** Type 3 - 10, 20L/h

## Application

- Glassware rinsing, Hydroponics , Water baths
- Feed water of ultrapure water systems, Humidifiers
- Autoclaves

## Consumables

	Filters	Contains(pore size)	
<b>Pretreatment</b>	Duo-MA Pack	Depth Activated carbon filter (1um)	Removes large particles and free chlorine from tap water.(Pack includes of polyphosphaste for anti-scaling)
	Dico-PC Pack	Micro filter (1um)	
	Expe-PC Pack	Depth Activated carbon filter (1um)	Protecting the reverse osmosis (RO) membrane against mineral scaling, organic fouling and chlorine oxidation.
	Med-PC Pack		
<b>RO Membrane</b>	Duo-RO Membrane	Reverse Osmosis Membrane (MW200)	Remove a large majority of contaminants from water by pushing the water under pressure through a semi-permeable membrane.
	RO Membrane		
	RO Pack		
<b>Deionization</b>	Duo-MB Pack	Ion exchange resins	Remove trace levels of organics
	Dico-PO Pack		
	Med-Post Pack		
<b>Low TOC</b>	UV Lamp	Dual Wavelength (185/254nm)	Degrades organic contaminants by photooxidation and purifies water as it passes through the UV lamp.
<b>Ultra Pure water</b>	Duo-PI Pack	Ion exchange resins	Removes trace levels of ions from ultrapure water.
	Dio-Pack I,II	Activated Carbon	the cartridge comprises clean and high-purity materials to minimize leaching of low organics and extractable contaminants.
	Expe-CI,MI Pack		
<b>POU Filter</b>	Final filter I,II	0.22 µm	Filters for bacteria-free and particulate-free water
	UF Filter		Filters(0.01µm) for pyrogen-free water for removing of pyrogens(endotoxin), Rhase,Dnases.
	Metal Filter		Removes specific heavy metals and micro-particles.



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