### HIPURE-10 ULTRAPURE LABORATORY WATER PURIFIER



**Ringene HIPURE-10** laboratory water purification system is the integration of 7-inch touch screen monitor controlling 4-way water quality sensor, 3-way water flow sensor for quantified dispensing and Ion-Pure EDI module. It also has 2-stage RO and 3-pump system and built-in TOC module. The inlet can be a tap water and final 10 L / hour output water meets the highest grade I standard of ASTM, CAP, CLSI, EP and USP. The laboratory can have the EDI water and endotoxin free ultrapure water by parallel output tubes. Its final output water can be used for nucleic acid assays, cell culture and IVF procedures. Based on a feed water quality, extra active carbon and its block cartridges can be supported.

### **Monitoring functions**

The alarm function lets user know when there is no feed water, when internal water tank gets full, when the inlet water quality is insufficient, and when there is a leakage.

Additional alarm set is installed to track the usage of each cartridge. The cartridge lifespan is calculated based on 3 parameters: water flow volume, water quality and calendar clock.

#### Water circulation and filtration

Auto self-flushing circulation of water through RO membrane extends the filter lifespan. The self-flushing interval and continuous time can be set-up. 50 L volume water tank with conical bottom including air filter is attached to main body to prevent gas forming and bacterial contamination. Additional external tanks with up to 200 L volume are optional.

Self-flushing and sanitizing function with UV column supports disinfection of ultrapure water with set-up interval and continuity. Its double wavelength lamps (185 & 254 nm) restrain bacterial growth and reduce TOC.

With doors installed on 4 sides of the main body, any of cartridges can be easily replaced. Whole plastic shell with high-strength avoids rusting and keeps the internal space clean, meeting GLP standard. Tube and adapter with NSF authorization and top quality, reduce TOC level and assure ultrapure water quality.

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Optimized pretreatment (including PP fiber, KDF and active carbon cartridge) effectively protects membranes located in the beginning of purification process, especially RO membranes. The RO module with DOW's membrane ensures long life, stable operation and high desalinization rate. Ultrapure cartridge with DOW's top polishing resin ensures ultrapure water quality up to 18.2 M $\Omega$ .cm with the lowest TOC level. MWCO 5000D ultrafiltration module effectively eliminates endotoxin, and is suitable for working with RNA, cell culture and IVF. The 0.45 µm double layer PES terminal disinfection filter assures final water quality.

#### Interface

Auto running data storing function with built-in SD card, and data can be exported through the USB interface. Built-in perpetual calendar clock for cartridges and service setting. System upgrading function through USB interface. System circulation function, achieve ultrapure water's circulation to keep top quality of ultrapure water. Level II password protects parameter settings, and prohibits any unauthorized setting change.

Basic information		
Dimension and weight	54 x 47 x 64 cm, 28 kg (main) + 7.8 or 21 kg	
Electrical requirements	AC 200-240 V or 110-120 V, 50/60Hz	
Power	240 W	
Configuration	Main body w. 15 L or 50 L or 200 L storage tank	
EDI water parameters		
Output	10 L/h	
Resistivity (25°C)	>5MΩ.cm	
TOC	<30ppb	
Silicon rejection rate	>99.9%	
Feed water requirements	5-45°C with 1.0-4.0 Kgf/cm2 pressure	
Ultrapure water parameters		
Output	2L/min	
Resistivity (25°C)	18.2MΩ.cm	
TOC	<10ppb	
Bacteria	<0.01cfu/ml	
Particle (>0.1 µm)	<1/ml	
Endotoxin	<0.001Eu/ml	
RNases	<1 pg/ml	
DNases	<2 pg/ml	

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### Filter cartridges and other basic components can be supported

Product No	Filter and consumable	Replacement period
WPR002-001	Pretreatment cartridge	2-6 months
WPR003-001	KDF+ granular active carbon mixed cartridge	12 months
WPR004-001	Active carbon block cartridge	6 months
WPR005-001	100 GPD reverse osmosis membrane	12-24 months
WPR005-002	200 GPD reverse osmosis membrane	12-24 months
WPR006-001	Water softener cartridge	6 months
WPR007-001	EDI module	36 months
WPR008-001	(254&185) nm wavelength UV lamp	9000 hours
WPR009-001	Ultrapure polishing resin cartridge	5000 L flow usage
WPR010-001	Endotoxin elimination cartridge	2000 L flow usage
WPR011-001	0.45 µm terminal filter	1000 L flow usage
WPR012-001	15 L storage tank w. tubes	Optional
WPR012-002	50 L storage tank w. tubes	Optional
WPR012-003	200 L storage tank w. tubes	Optional
WPR013-001	Filter / resin housing cylinder, 10 inch	If needed
WPR013-002	Filter / resin housing cylinder, 20 inch	If needed
WPR013-003	Filter / resin housing cylinder, 30 inch	If needed

