

Water Purification System

Venchal
Scientific

E-Pro RO Series

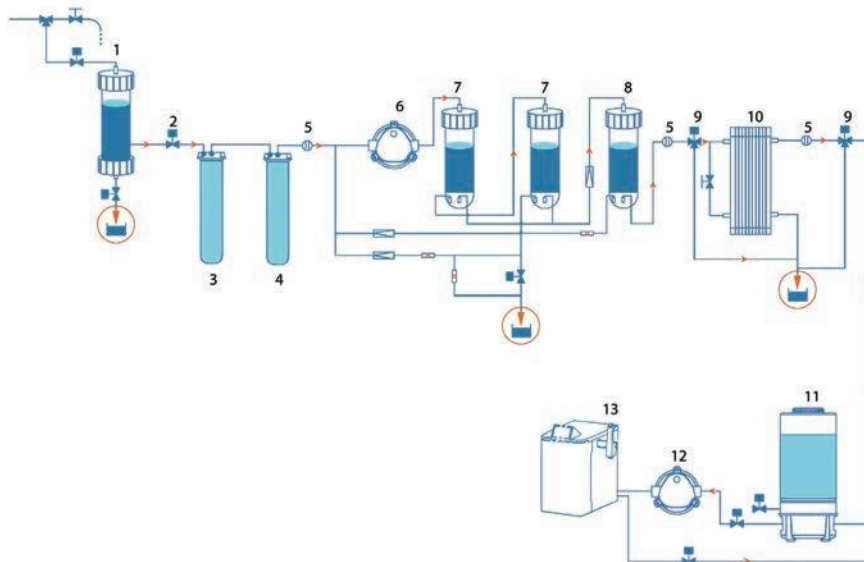
ASTM Type II high purified water system
Clinical laboratory reagent water (CLSI)



Features

- Integrated water dispenser arm
- EDI self-developed
- U-cloud platform for remote monitoring (Wifi module)
- USB access port for data logging

Water Flow Chart



- 1 Pre-treatment module
- 4 Pre-guard cartridge B
- 7 One-stage RO membrane
- 10 EDI module
- 13 Type II water dispenser arm

- 2 Solenoid valve
- 5 Conductivity electrode
- 11 Water tank

- 3 Pre-guard cartridge A
- 6 Booster pump
- 9 TEE Solenoid valve
- 12 Circulating pump

Water Purification System

E-Pro UP Series

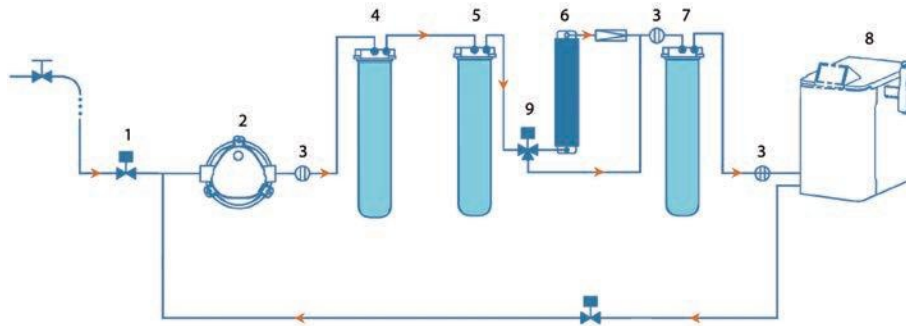
ASTM Type I Ultra purified water system



Features

- Integrated water dispenser arm
- On line real time TOC monitoring
- Dual wavelength UV-lamp 254nm & 185nm
- U-cloud platform for remote monitoring (Wifi module)
- USB access port for data logging

Water Flow Chart



- 1 Solenoid valve
- 4 Pre purification cartridge A
- 7 Ultra purification cartridge

- 2 Circulating pump
- 5 Pre purification cartridge B
- 8 Type I water dispenser arm

- 3 Conductivity electrode
- 6 UV lamp 185 & 254 nm
- 9 TEE Solenoid valve

Main Configurations	Type II Water		Type I Water
	E Pro RO10	E Pro RO15	E Pro UP 20
Pre-treatment module	YES	YES	NO
Main host	YES	YES	YES
Pre-guard cartridge A	YES	YES	NO
Pre-guard cartridge B	YES	YES	NO
Pre purification cartridge A	NO	NO	YES
Pre purification cartridge B	NO	NO	YES
Two-stage Reverse osmosis	YES	YES	NO
EDI module self-developed	YES	YES	NO
60L water tank; stepless water level sensor	YES	YES	NO
254nm UV light of water tank	YES	YES	NO
Inlet air filter of water tank 0.2µm	YES	YES	NO
Water leakage protection sensor	YES	YES	YES
Dual wavelength (254nm & 185nm) UV-lamp	NO	NO	YES
TOC monitoring	NO	NO	YES
Ultra purification cartridge A	NO	NO	YES
One integrated type I water dispenser arm	YES	YES	YES
1M water piping from main unit to water dispenser arm	YES	YES	YES
0.22 µm end filter	YES	YES	YES

* Optional ultra purification cartridge B special for semiconductor industry that has higher deionization requirements

Water Purification System

Model	Type II Water						Type I Water
	E Pro RO 10		E Pro RO 15		E Pro RO 20		E Pro UP 20
Feed water Requirements							
Source	Potable tap water						Type II water/RO
Conductivity	<2000µS/cm						<100µS/cm
TOC	<1ppm						< 50ppb
Hardness*	<450ppm as CaCO ₃						0-1ppm
Pressure	0.1~0.4Mpa (7-72psi)						0.1~0.4Mpa (7-72psi)
Temperature	5~45°C						5~45°C
PH	4-10						7/6-8
Type II high purified water							
Resistivity at 25°C**	15MΩ.cm; typically 10-15MΩ.cm						N/A
Conductivity at 25°C**	0.067µS/cm; typically 0.1µS/cm						
TOC	<30ppb(µg/L)						
Particulates with size > 0.22µm***	No particles						
Endotoxin (Pyrogens)***	<0.001EU/mL						
Bacteria***	<0.01cfu/mL (<10cfu/L)						
Rnase***	<1pg/mL						
Dnase***	<3pg/mL						
Proteases***	<0.15µg/mL						
RO rejection	≥99%						
EDl ion rejection	≥99%						
Production flow rate	10L/H	15L/H	20L/H	10L/H	15L/H	20L/H	
Manual control water flow rate	Maximum 2L/min, stepless control of flow rate						
Quantitative water dispense range	10mL ~ 60L						
Type I high purified water							
Resistivity at 25°C							18.2MΩ.cm
Conductivity at 25°C							0.055µS/cm
TOC							≤2ppb(µg/L)
Particulates with size > 0.22µm							No particles
Endotoxin (Pyrogens)							<0.001EU/mL
Bacteria	N/A						<0.01cfu/mL (<10cfu/L)
Rnase/Dnase							Free
Proteases							<0.15µg/mL
Manual control water flow rate							Maximum 2L/min, stepless control of flow rate
Quantitative water dispense range							0.01L ~ 60L
Electrical requirement							
Electrical voltage	220V ±10%						
Electrical frequency	50Hz/60Hz						
Power	<135W						
Size Information							
Net Weight							
Pre-treatment module	8.5kg						N/A
Main host with dispenser arm	29.6kg	30.3kg	30.8kg	27.7kg	28.4kg	28.9kg	20kg
30L Water tank	9kg						N/A
60L Water tank	10.66kg						
100L Water tank	12.2kg						
External Dimension (WxDxH)							
Pre-treatment module	270x280x566 (mm)						N/A
Main host	328x540x600 (mm)						328x410x600 (mm)
Integrated dispenser arm	42x85.5x231.5 (mm)						42x85.5x231.5 (mm)
30L Water tank	390x390x690 (mm)						N/A
60L Water tank	390x390x930 (mm)						
100L Water tank	390x390x1235 (mm)						
Packing Information							
Gross Weight							
Pre-treatment module	9.8kg						
Main host with dispenser arm	40.4kg	41.1kg	41.6kg	39.7kg	40.4kg	40.9kg	34kg
30L Water tank	12.4kg						N/A
60L Water tank	14kg						
100L Water tank	15.6kg						
Packing Dimension (WxDxH)							
Pre-treatment module	350x360x670 (mm)						N/A
Main host with dispenser arm	510x670x800 (mm)						510x670x800 (mm)
30L Water tank	520x520x780 (mm)						N/A
60L Water tank	520x520x1020 (mm)						
100L Water tank	520x520x1325 (mm)						

*If the tap water contains a high rate of calcium ions and magnesium ion which do not meet the requirement, please use salty box to remove part of calcium ions and magnesium ion in advance

**Resistivity typically 10-15MΩ.cm at 25°C, Conductivity typically 0.1µS/cm, at 25°C

***Feed water quality should meet above requirements and purified water through the remote water dispenser with end 0.22µm filter