



Membrane Solutions

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Pinnacle Series-S Ultrapure water system

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Pinnacle S Series

Ultrapure water system

Pinnacle Series-S, integrating microcomputer control system with LCD display, 3 way water quality sensors, timing and quality dispensing, single stage RO system and pump (UPW-S-T13 with 2 pumps, UPW-S-T23 and UPW-S-P12 with 1 pump), its output ranges from 15 to 30 liters/hour with tap water inlet. And with distilled water inlet, its output is up to 2 liters/minute.

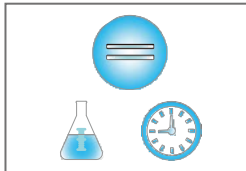
With tap water inlet, it can produce single stage RO water, deionized water and ultrapure water. And with distilled water inlet, it can produce deionized water and ultrapure water. The single stage RO water' s ion rejection rate is more than 97%. The deionized water' s resistivity is above 16 MΩ.cm, and the ultrapure water' s resistivity absolutely reaches to 18.2 MΩ.cm. It completely meets the highest grade I standard of ASTM, CAP, CLSI, EP and USP.





Micro-computer control system with LCD display

- LCD(resolution:240×128,dimension:106×57mm),intuitively display the system running



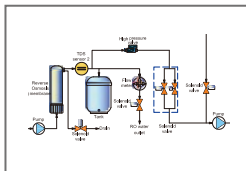
Comprehensive monitoring system

- 3 way online water quality sensors, detect the quality of feed water, RO water, deionized water, or ultrapure water respectively. And warn once water quality's standard exceeding.
- Water dispensing function-timing and quality (time range: 1-99min, water quality range: 0.1-18.2MΩ.cm) water.



Easy-to-replacing cartridge

- Independent pretreatment design, and integrated subsequent purification unit design, with fast inserted adapters, easy to replace.



Single stage RO and 1 pump system

- To achieve single stage RO system, easy to maintain.



Whole plastic shell with high-strength

- Excellent ergonomic design, avoid rusting and keep clean, to meet GLP standard.

FEATURES AND ADVANTAGES

- Cartridges replacing alarm function, based on time and water quality, show cartridges' used and residual life.
- Multiple alarm function: no feed water, full water, water quality's standard exceeding, and cartridge life ending.
- Auto self-flushing of RO membrane function, extend RO membrane's life.
- Auto running data storing function through RS232/USB communication port to computer for 1 year at least.
- System sanitizing procedure, achieve the disinfection of ultrapure water's tube and valve.
- System circulation function, achieve ultrapure water's circulation to keep top quality of ultrapure water.
- Level II password, protect all the parameters setting, and prohibit any unauthorized setting change.
- External water tanks is optional to meet different need and assure ample water-supply.
- 3 doors and easy-to-replacing cartridge design, convenient to maintain system and replace cartridges.
- Tube and adapter with NSF authorization and top quality, reduce TOC level and assure ultrapure water's quality.
- Optimized pretreatment (including PP fiber, KDF and active carbon cartridge), effectively protect RO membrane.
- Ensure ultrapure water's quality up to 18.2 MΩ.cm, with the lowest TOC level.
- Double wavelength(185&254nm) ultraviolet lamp module, restrain bacteria's increase and reduce TOC.
- Ultrafiltration module, effectively eliminate endotoxin, and suitable for precise cell cultivating and NF.

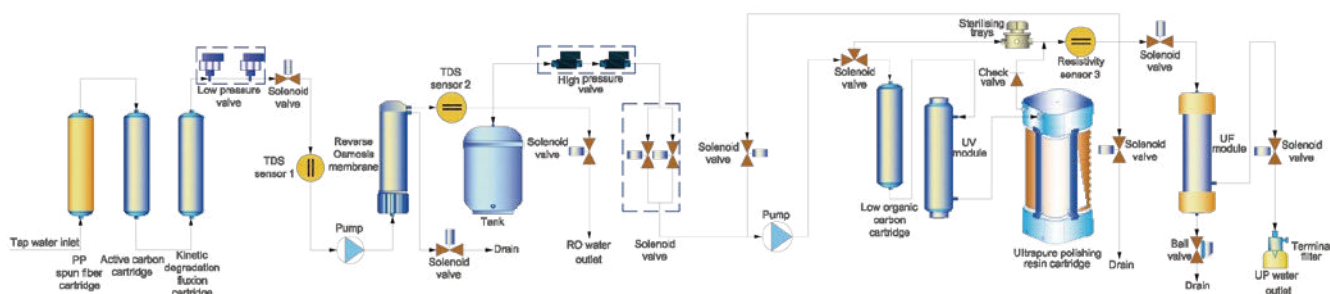
SELECTION GUIDE

MS Item Number	Tap Water Inlet	DI Water Inlet	Type I Water	Type II Water	Type III Water	UV Lamp (254&185nm)	UV Lamp (254nm)	UF Module (5000D)	TOC Level	Endotoxin Level
UPW-S-T13-15	Y		Y		Y		Y		<10ppb	N/A
UPW-S-T13-15UF	Y		Y		Y		Y	Y	<10ppb	<0.001Eu/ml
UPW-S-T13-15UV	Y		Y		Y	Y			<3ppb	N/A
UPW-S-T13-15VF	Y		Y		Y	Y		Y	<3ppb	<0.001Eu/ml
UPW-S-T13-30	Y		Y		Y		Y		<10ppb	N/A
UPW-S-T13-30UF	Y		Y		Y		Y	Y	<10ppb	<0.001Eu/ml
UPW-S-T13-30UV	Y		Y		Y	Y			<3ppb	N/A
UPW-S-T13-30VF	Y		Y		Y	Y		Y	<3ppb	<0.001Eu/ml
UPW-S-P12		Y	Y	Y			Y		<10ppb	N/A
UPW-S-P12-UF		Y	Y	Y			Y	Y	<10ppb	<0.001Eu/ml
UPW-S-P12-UV		Y	Y	Y		Y			<3ppb	N/A
UPW-S-P12-VF		Y	Y	Y		Y		Y	<3ppb	<0.001Eu/ml
UPW-S-T23-15	Y			Y	Y		Y		N/A	N/A
UPW-S-T23-15UT	Y			Y	Y		Y		N/A	N/A
UPW-S-T23-30	Y			Y	Y		Y		N/A	N/A
UPW-S-T23-30UT	Y			Y	Y		Y		N/A	N/A

CONSUMABLES

Item No.	Description	Approximate replacement term/set
CG-S-PP	PP pre-treat cartridge for S-series UPW	2-6 months
CG-S-KDF	KDF pre-treat cartridge for S-series UPW	12 months
CG-S-AC	AC pre-treat cartridge for S-series UPW	6 months
CG-100RO	100 GPD RO module	12-24 months
CG-200RO	200 GPD RO module	12-24 months
CG-TOC	Low organics carbon cartridge	12-18 months
CG-S-MB1	Mixed bed resin cartridge	6 months
CG-S-MB4	Mixed bed resin cartridge module,4 columns	6-12 months
CG-S-PB1	Ultrapure polishing resin cartridge	6 months
CG-S-PB4	Ultrapure polishing resin cartridge,4 columns	6-12 months
CG-POU	Point-of-use filter	-
CG-UF	UF module	-
TB-DUV-10W	Dual wavelength(185&254)nm uv lamp	9000 hours
TB-SGL-10W	254 nm wavelength uv lamp	9000 hours

FLOW SCHEMATIC



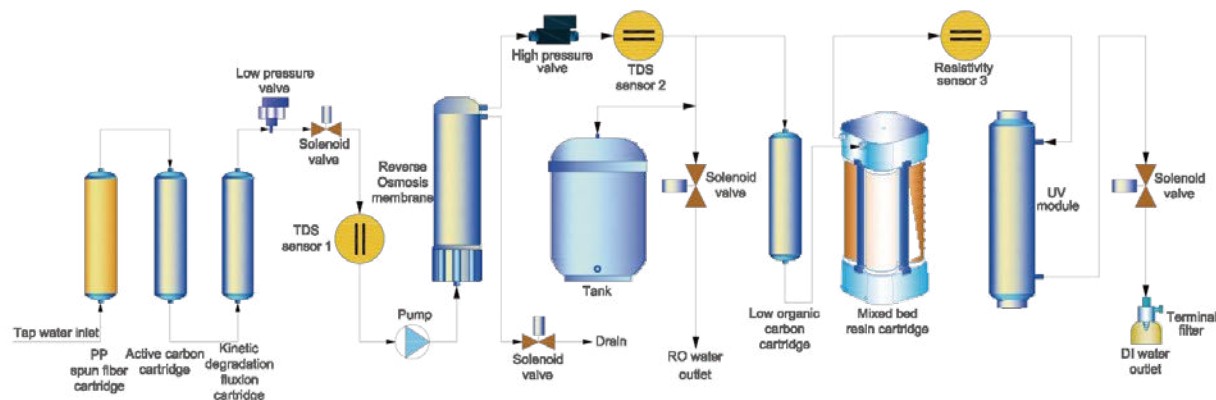
SPECIFICATIONS

	Standard	Eliminating endotoxin	Low TOC	Integrated
	UPW-S-T13-15	UPW-S-T13-15UF	UPW-S-T13-15UV	UPW-S-T13-15VF
	UPW-S-T13-30	UPW-S-T13-30UF	UPW-S-T13-30UV	UPW-S-T13-30VF
Output(25℃)*	15series-15 liters/hour, 30 series-30 liters/hour			
Flow rate	Up to 2 liters/minute (with pressure tank)			
Pure water outlet	2:reverse osmosis water, ultrapure water			
Ultrapure water quality				
Resistivity(25℃)	18.2MΩ.cm			
TOC*	<10ppb	<10ppb	<3ppb	<3ppb
Bacteria	<0.1cfu/ml			
Particle(>0.1um)	<1/ml			
Endotoxin	N/A	<0.001Eu/ml	N/A	<0.001Eu/ml
RNases	N/A	<1pg/ml	N/A	<1pg/ml
DNases	N/A	<5pg/ml		<5pg/ml
RO water quality				
Ion rejection rate	97%-99%(new RO membrane)			
Organic rejection rate	>99%,when MW>200 Dalton			
Particles and bacteria rejection rate	>99%			
Feed water requirements	Tap water, temperature:5-45℃,pressure:1.0-4.0Kgf/cm ²			
Dimension and weight	Length x Width x Height 500×360×540mm /Weight about 20Kg			
Electrical requirements	AC100-240V,50/60Hz			
Power	120W			
Standard configuration	Main body (Including 1 set of cartridge)+15 liters pressure tank			

Remarks:

* The performance of the water system is contingent upon the ambient temperature and the quality of the source water.

FLOW SCHEMATIC



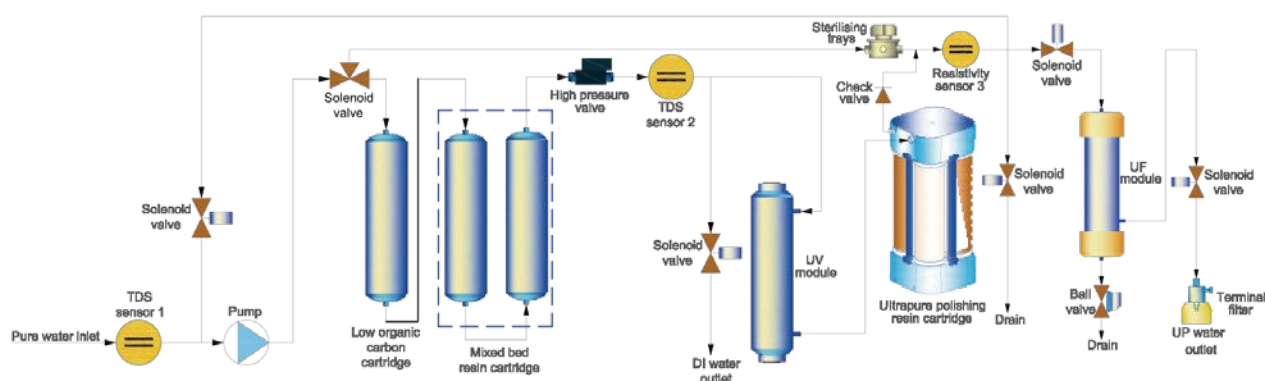
SPECIFICATIONS

	General Grade	General Grade Bactria Control
	UPW-S-T23-15	UPW-S-T23-15UT
	UPW-S-T23-30	UPW-S-T23-30UT
Output(25℃)*	15series-15 liters/hour, 30 series-30 liters/hour	
Flow rate	Up to 2 liters/minute (with pressure tank)	
Pure water outlet	2: Reverse Osmosis Water, Pure water	
Ultrapure water quality		
Resistivity(25℃)	16~18.2MΩ.cm	
Bacteria	N/A	<0.01cfu/ml
Particle(>0.1um)	N/A	<1/ml
Endotoxin	N/A	N/A
RO water quality		
Ion rejection rate	97%-99%(new RO membrane)	
Organic rejection rate	>99%,when MW>200 Dalton	
Particles and bacteria rejection rate	>99%	
Feed water requirements	Tap water, temperature:5-45℃,pressure:1.0-4.0Kgf/cm ²	
Dimension and weight	Length x Width x Height 500×360×540mm /Weight about 20Kg	
Electrical requirements	AC100-240V,50/60Hz	
Power	120W	
Standard configuration	Main body (Including 1 set of cartridge)+15 liters pressure tank	

Remarks:

** The performance of the water system is contingent upon the ambient temperature and the quality of the source water.

FLOW SCHEMATIC



SPECIFICATIONS

	Standard	Eliminating endotoxin	Low TOC	Integrated
	UPW-S-P12	UPW-S-P12-UF	UPW-S-P12-UV	UPW-S-P12-VF
Flow rate	Up to 2 liters/minute (with pressure tank)			
Ultrapure water quality				
Resistivity(25℃)	18.2MΩ.cm			
TOC*	<10ppb	<10ppb	<3ppb	<3ppb
Bacteria	<0.1cfu/ml <1/ml			
Endotoxin	N/A	<0.001Eu/ml	N/A	<0.001Eu/ml
RNases	N/A	<1pg/ml	N/A	<1pg/ml
DNases	N/A	<5pg/ml		<5pg/ml
RO water quality				
Resistivity(25℃)	≥5MΩ.cm			
Feed water requirements	Distilled water, deionized water or RO water, water temperature 5-45℃, water pressure 1atm			
Dimension and weight	Length x Width x Height 500×360×540mm /Weight about 20Kg			
Electrical requirements	AC100-240V,50/60Hz			
Power	120W			
Standard configuration	Main body (Including 1 set of cartridge)			

Remarks:

** The performance of the water system is contingent upon the ambient temperature and the quality of the source water.



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