

Smart Plus N/NE

Introduction

The industry's most complete water purification solution for highly regulated applications.

When your application requires the ultimate in water purity, Smart Plus provides the perfect solution. Consistently delivering water purity of 18.2MΩ.cm and underpinned by the advanced technologies, the Smart Plus enables you to focus on attaining accurate results while ensuring an uninterrupted work flow.



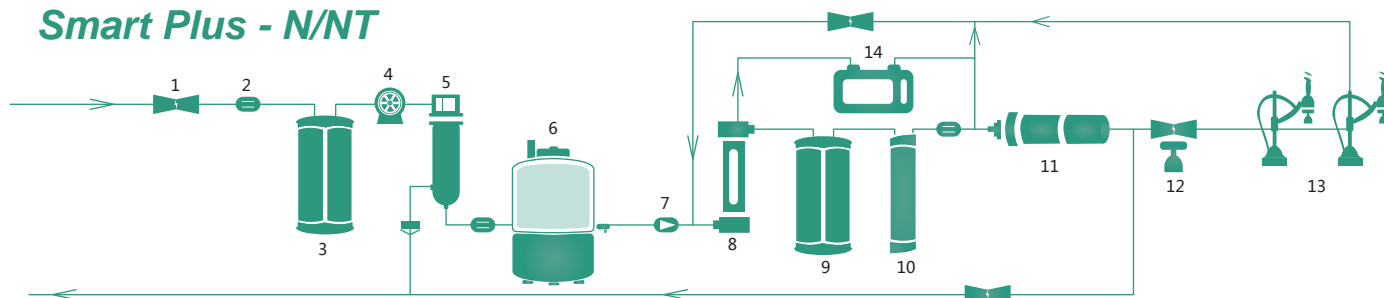
Typical Scientific Applications

- ICP-MS(Inductively Coupled Plasma Mass Spectrometry)
- Molecular biology techniques
- Ultra trace analysis
- Electrochemistry
- Electrophoresis
- GFAAS(Graphite Furnace Atomic Absorption Spectrophotometry)
- HPLC
- IC(Ion Chromatography)
- ICP-AES(Inductively Coupled Plasma Atomic Emission Spectrometry)
- Mammalian and bacterial cell culture
- Molecular biology
- Plant tissue culture
- Qualitative analysis

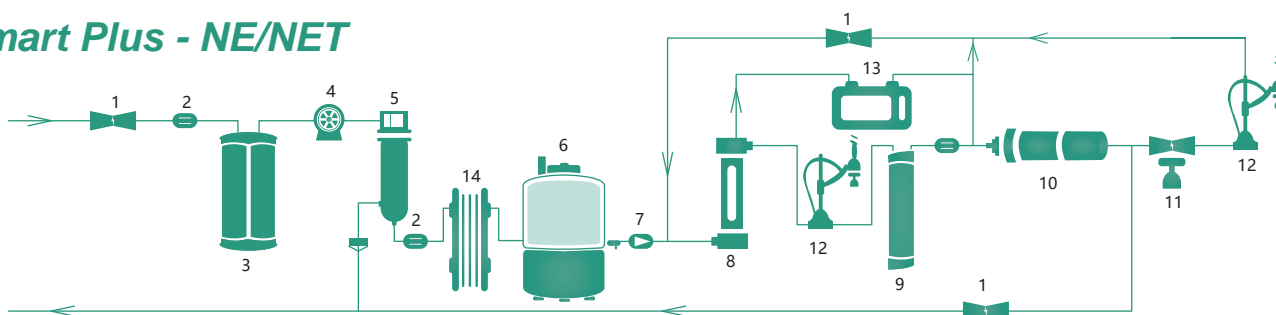
Configuration

SMART PLUS System	SMART PLUS N	SMART PLUS NT	SMART PLUS NE	SMART PLUS NET
Pretreatment module	○	○	○	○
High pressure pump	○	○	○	○
Reverse osmosis	○	○	○	○
Dual wavelength UV-lamp	○	○	○	○
Ultra-purification cartridge	○	○	○	○
Ultrafiltration cartridge	○	○	○	○
EDI Module	\	\	○	○
Point-of-use filter	○	○	○	○
Storage tank 30L	○	○	○	○
Air filter net for tank	○	○	○	○
UV-lamp sterilizer for water tank	○	○	○	○
Remote water dispenser with color display	○	○	○	○
TOC monitoring module	\	○	\	○

Smart Plus - N/NT



Smart Plus - NE/NET



- | | | |
|------------------------|-------------------------------|---------------------------|
| 1 Solenoid Valve | 6 Water Tank | 11 Point-Of-Use Filter |
| 2 Conductivity Sensor | 7 Ball Valve | 12 Remote Water Dispenser |
| 3 Pre-treatment Module | 8 Dual Wave UV Cartridge | 13 TOC monitor cell* |
| 4 Boost Pump | 9 Ultra-Purification Module | 14 EDI Module |
| 5 RO Module | 10 Ultra-Filtration Cartridge | |

*Applicable for Smart Plus NT/NET

Model	< 0.1 cfu/ml			
	Smart Plus - N	Smart Plus - NT	Smart Plus - NE	Smart Plus - NET
Feed Water Requirement				
Source	Tap water	Tap water	Tap water	Tap water
Conductivity*	<2000us/cm	<2000us/cm	<2000us/cm	<2000us/cm
Hardness**	< 450ppm as CaCO ₃	< 450ppm as CaCO ₃	< 450ppm as CaCO ₃	< 450ppm as CaCO ₃
Pressure	0.05~0.5MPa(7-72psi)	0.05~0.5MPa(7-72psi)	0.05~0.5MPa(7-72psi)	0.05~0.5MPa(7-72psi)
Temperature	5~40℃	5~40℃	5~40℃	5~40℃
Purification Water(Class III)				
Ionic Rejection	>95%	>95%	>95%	>95%
Bacteria Rejection	>99%	>99%	>99%	>99%
Conductivity	1~20us/cm	1~20us/cm	1~20us/cm	1~20us/cm
Productivity Rate	30L/h	30L/h	30L/h	30L/h
High Quality Purification Water(Class II)				
Resistivity At 25℃	/	/	10MΩ.cm	10MΩ.cm
TOC	/	/	<30ppb	<30ppb
Dissolved Organic	/	/	<0.1ppm	<0.1ppm
Productivity Rate	/	/	15L/h	15L/h
Ultrapurification Water(Class I)				
Resistivity At 25℃	18.2MΩ.cm	18.2MΩ.cm	18.2MΩ.cm	18.2MΩ.cm
Conductivity At 25℃	0.055us/cm	0.055us/cm	0.055us/cm	0.055us/cm
TOC Level***	1~5ppb	1~5ppb	1~5ppb	1~5ppb
Endotoxin(Pyrogens)****	<0.001EU/ml	<0.001EU/ml	<0.001EU/ml	<0.001EU/ml
Particulate(≥0.02um)	<1pc/ml	<1pc/ml	<1pc/ml	<1pc/ml
Bacteria***	<0.1 cfu/ml	<0.1 cfu/ml	<0.1 cfu/ml	<0.1 cfu/ml
Rnase / Dnase**	Free	Free	Free	Free
Manual dispense flow rate	1.5~2.0L/min	1.5~2.0L/min	1.5~2.0L/min	1.5~2.0L/min
Automatic dispense volume	100~60000ml	100~60000ml	100~60000ml	100~60000ml
Electrical Requirements				
Electrical Voltage	110V/220V±10%	110V/220V±10%	110V/220V±10%	110V/220V±10%
Electrical Frequency	50HZ/60HZ	50HZ/60HZ	50HZ/60HZ	50HZ/60HZ
Packing Information				
Net Weight				
Main units	34kg	34kg	35kg	35kg
Water tank (30L)	7kg	7kg	7kg	7kg
External Dimensions(W×D×H)				
Main units	315×525×570mm	315×525×570mm	315×525×570mm	315×525×570mm
Water tank (30L)	380×380×595mm	380×380×595mm	380×380×595mm	380×380×595mm
Shipping weight				
Main units	37kg	39kg	37kg	37kg
Water tank (30L)	15kg	15kg	15kg	15kg
Shipping Dimensions(W×D×H)				
Main units	525×610×770mm	525×610×770mm	525×610×770mm	525×610×770mm
Water tank (30L)	520×440×615mm	520×440×615mm	520×440×615mm	520×440×615mm

* If feed water quality is poor(Conductivity>1000us/cm), strengthened pretreatment module and RO-2 type is highly recommended

** When hardness of feed water is high(>450ppm as CaCO₃), 0.5T water softener is recommended

*** Dual wave UV module need to be adopted. Also dependent on feed water, recommended feed TOC<30ppb

****Ultra-filtration module need to be adopted. Feed water need to be satisfied as above