Smart NE

Introduction

Smart NE system is a water purification system, integrating electrodeionizaiton technology to product ultrapure water. EDI technology brings benefit including low energy consumption, lower maintenance cost, better ion exchange and no particulates or organic contamination.

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 NE system	SMART NE
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	\

What benefits you can get

Constant high efficient removal of ions and small MW charged organic (Resistivity > 10 MΩ- cm)

No exchange of spent resins

No regeneration chemicals

Low energy consumption

Typical <10 watt light bulb

Low operating cost and low maintenance

EDI

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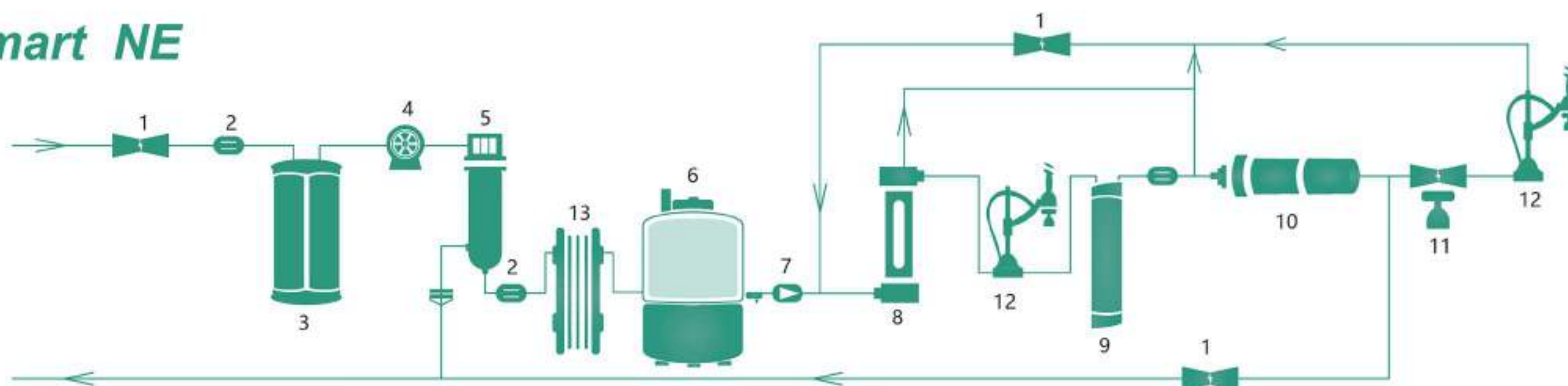
1 Solenoid Valve	6 Water Tank	11 Point-Of-Use Filter
2 Conductivity Sensor	7 Ball Valve	12 Remote Water Dispenser
3 Pre-treatment Module	8 Dual Wave UV Cartridge	13 EDI Module
4 Boost Pump	9 Ultra-Purification Module	
5 RO Module	10 Ultra-Filtration Cartridge	

Model	Smart NE
Feed Water Requirement	
Source	Tap water
Conductivity*	<2000us/cm
Hardness**	<450ppm as CaCO3
Pressure	0.05~0.5MPa(7-72psi)
Temperature	5~40℃
Purification Water(Class III)	
Ionic Rejection	>95%
Bacteria Rejection	>99%
Conductivity	1~20us/cm
Productivity Rate	30L/h
High Quality Purification Water(Class II)	
Resistivity At 25℃	10MΩ.cm
TOC	<30ppb
Dissolved Organic	<0.1ppm
Productivity Rate	15L/h
Ultrapurification Water(Class I)	
Resistivity At 25℃	18.2MΩ.cm
Conductivity At 25℃	0.055us/cm
TOC Level***	1~5ppb
Endotoxin(Pyrogens)****	<0.001EU/ml
Particulate(≥0.02um)	<1pc/ml
Bacteria***	<0.1 cfu/ml
Rnase / Dnase**	Free
Manual dispense flow rate	1.5~2.0L/min
Automatic dispense volume	100~60000ml
Electrical Requirements	
Electrical Voltage	110V/220V±10%
Electrical Frequency	50HZ/60HZ
Packing Information	
Net Weight	
Main units	35kg
Water tank (30L)	7kg
External Dimensions(W×D×H)	
Main units	315×525×570mm
Water tank (30L)	380×380×595mm
Shipping weight	
Main units	37kg
Water tank (30L)	15kg
Shipping Dimensions(W×D×H)	
Main units	525×610×770mm
Water tank (30L)	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 soften 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