

Smartplus-NE Series Ultrapure Water System



Introduction

The Smartplus-NE series represents our premium water purification solution designed for demanding laboratory applications. When your research demands exceptional water quality, our systems deliver unmatched performance. With consistent ultrapure water output at 18.2MΩ.cm and powered by cutting-edge technology, the Smartplus-NE series ensures reliable operation and precise results, allowing researchers to focus on their critical work without interruption.

Application

- 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

Features

1. Advanced Design & Construction

- Premium ABS construction with corrosion-resistant properties
- Streamlined design with water-electricity separation for enhanced safety
- Easy maintenance with quick-access consumable replacement

2. Intelligent Control System

- 7-inch HD color touchscreen interface
- RFID-enabled consumables management
- Superior Water Dispensing System
- Real-time parameter monitoring and display
- Remote control capability via RS232 interface
- Flexible remote dispenser with 3-meter reach

3. Smart Dispensing Handle

- 360° rotation capability
- Real-time quality parameter display
- Optional Bio-final filter for endotoxin, RNase & DNase removal
- Three-level adjustable flow rates

4. Advanced Purification Technology

- Dual-column pretreatment system with high quality activated carbon
- High-performance DOW RO membrane with auto-flush function
- EDI module for continuous high-purity water production
- Ultrafiltration system with automatic flush design

5. Innovative Storage Solution

- PE construction water tank for optimal water quality
- Anti-microbial cylindrical design
- Automated level control system
- One-touch sanitization function for entire system

6. Water Quality Assurance

- Automatic and continuous water quality monitoring
- Dual-wavelength UV system with TOC monitoring
- Multi-channel resistivity sensor (0.01 constant) with temperature compensation

Configuration

Deluxe System	Smartplus-NE
Pretreatment module	○
High pressure pump	○
Reverse osmosis	○
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	\

Remote Dispenser Solutions

The advanced remote dispenser designed for maximum flexibility and convenience in laboratory environments. Combined with our pure water systems, it creates a comprehensive water purification solution tailored to your laboratory needs.

AT A GLANCE

Overview:

- Flexible dispensing options
- Ergonomic design
- 25cm action radius

Key Features:

- Adjustable height and direction for optimal positioning
- Removable dispensing handset for extended reach
- Automated volume dispensing (100ml - 60L)
- Optional foot pedal operation

Ideal Applications:

- Analytical procedures
- Life science research
- Clinical laboratory testing
- Clean room operations

Precision Control

- Variable flow rate control
- Programmable volume dispensing
- Repeat dispensing capability

Quality Assurance

- Full recirculation system
- Maintained water purity
- Clean room compatible

Flexible Integration

- Compatible with pure water systems
- Adaptable to various lab setups
- Extended reach capability

Enhanced Efficiency

- Hands-free operation option
- Simple maintenance
- Consistent performance

Ergonomic Design

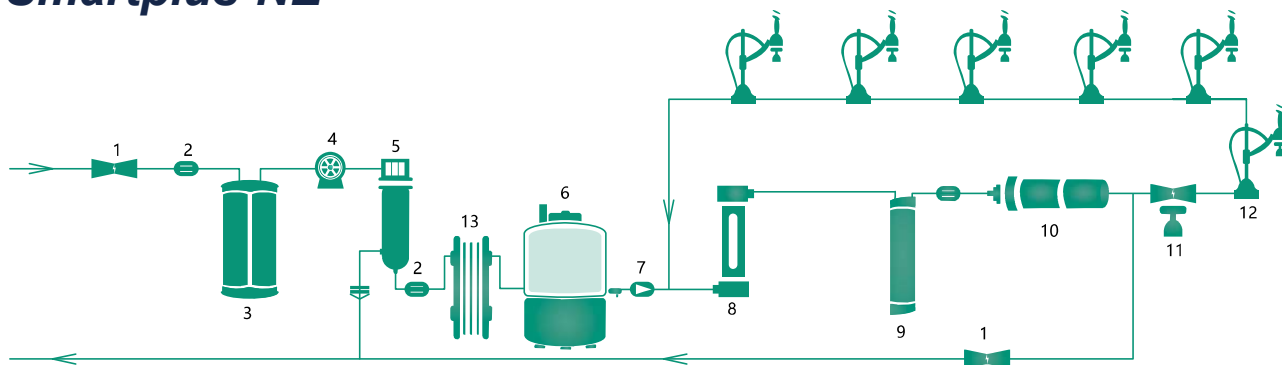
- Space-efficient configuration
- Flexible positioning options
- 25cm operational radius

User-Friendly Operation

- Intuitive controls
- Easy-to-use interface
- Multiple dispensing modes



Smartplus-NE



1 Solenoid Valve

2 Conductivity Sensor

3 Pre-treatment Module

4 Boost Pump

5 RO Module

6 External Water Tank(100L)

7 Ball Valve

8 UV lamp

9 Ultra-Purification Module

10 Ultra-Filtration Cartridge

11 Point-Of-Use Filter

12 Remote Water Dispenser

13 EDI module

Technical Specifications

Model	Smartplus-NE
Feed Water Requirement	
Source	Tap water
Conductivity*	<2000us/cm
Hardness**	<450ppm as CaCO ₃
Pressure	0.05-0.5MPa(7-72psi)
Temperature	5-40 ℃
Pure Water(Class III)	
Ionic Rejection	>95%
Bacteria Rejection	>99%
Conductivity	1-20us/cm
Productivity Rate	30L/h
High Purified 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 °C	18.2MΩ.cm
Conductivity At 25 °C	0.055us/cm
TOC Level***	1-5ppb
Endotoxin(Pyrogens)****	<0.001EU/ml
Particulate(≥0.02um)	<1pc/ml
Bacteria***	<0.01CFU/ml
Rnase/Dnase*	<1pg/ml, <5pg/ml
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
External Dimensions(WxDxH)	
Main units	315*525*570mm
Water tank (100L)	550*480*550mm
Others	
Remote Water Dispenser	6pcs

*If feed water quality in 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;