

# NuZar U24

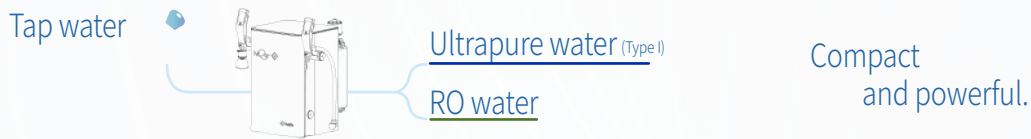
## Water Purification System

Tap water to ultrapure & RO water (24 L/h)



NuZar U24 water system set is a two-in-one integrated water purification system, producing ultrapure water and reverse osmosis water directly from tap water. The system can deliver up to 2 liters of ultrapure water per minute and produce 24 liters of RO water per hour.

The NuZar systems introduce a unique series to the RephiLe water purification portfolio. They are specifically designed for laboratories that demand a balance between cost of ownership and exceeding their purified water requirements.



### Key Features

#### Reliable, Stable, Traceable and Predictable

Simple installation and maintenance  
RFID tracking of consumables (RO Pack included) for enhanced management  
Easy to remove consumable access cover.  
Automatic RO membrane cleaning cycles (Cl<sub>2</sub> and pH cleaning)

Low running cost  
Self-maintenance functions for maximum RO membrane effectiveness and lifetime  
RFID record of cartridge history for predictable consumable replacements  
Highly-efficient cartridges

Reliable water quality & stable system performance  
Stable RO permeability over a wide range of temperatures  
Diversion to drain if quality of RO permeate falls below a pre-set set-point

Automatic hourly recirculation of ultrapure water  
Mercury-free germicidal UVC LED lamp preinstalled in tank sanitation module

Data traceability  
Automatic data backup for up to 2 years  
Easy data transfer through multiple interfaces, such as LAN, USB, etc.



Compact and small footprint  
An in-built single pretreatment P Pack  
Placement flexibility - on the bench or on a wall  
Two dispenser heights  
All-in-one design. Space-Saver



RFID technology



Data traceability



Low running cost

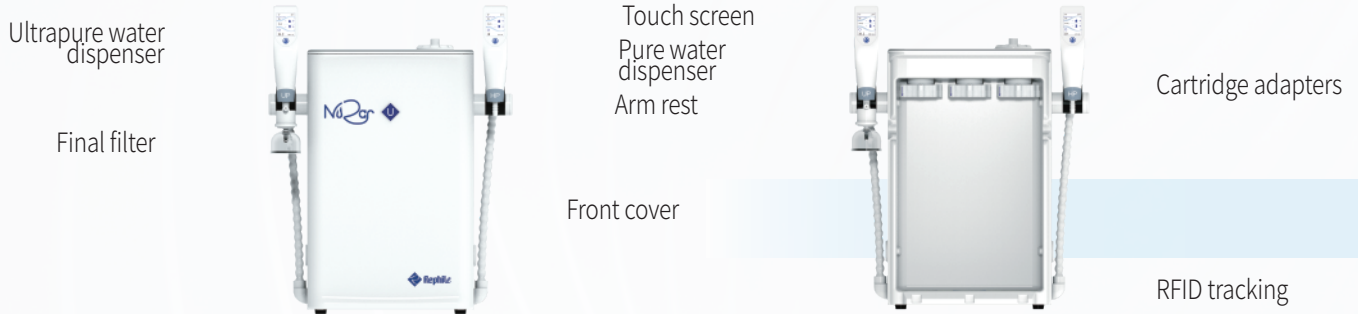


Small foot-print



Environmentally friendly

Components & Parts



Cartridges

Optimized flow design to improve water quality stability & efficiency of polishing resins  
High pressure rated housings, proprietary sealing, and double O-ring design ensures operational confidence  
Cartridge color, label, and RFID recognition prevent incorrect installation



Ergonomic dispenser with 2.4" color touch screen

Two dispensers for one system  
Intuitive display -water quality with temperature compensation, volumetric dispensing & flow rate  
System alerts are displayed on the touch screen  
Effortless adjustment -dispensing rate (up to 2 L/min), manual and volumetric dispensing  
Choice of final filters: RephiBio and 0.2 µm final filter



Two dispenser heights for the ultimate in flexibility



Storage Tank

A 10 L integrated HDPE tank equipped with sanitization module, mercury-free germicidal UVC LED lamp (peak emission wavelength at 265 nm) preinstalled.

Extendable to 30/60/100/350 L (with mercury-free tank sanitization module) if needed



Water Quality Compliance

Quality of ultrapure water meets or exceeds ASTM, CLSI, CAP and ISO Type I water standards.

CE/RoHS certified.

## Main Application

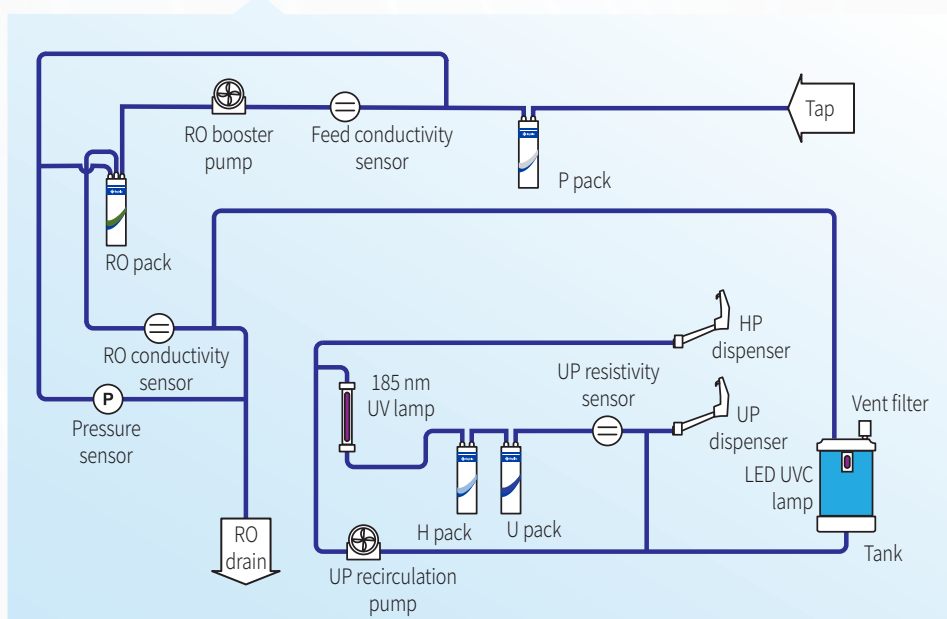
### Ultrapure water

- HPLC mobile phase preparation
- Preparation of reagent blank solutions
- Sample diluent for GC, HPLC, UPLC, ICP-MS or other analytical techniques
- Preparation of buffers and culture media for cell culture
- Preparation of molecular biology reagents, etc.

### RO water

- Washing machine for glassware cleaning
- Feed water for laboratory animals
- Feed water for humidifiers, autoclaves, etc.
- Water supply for ultrapure water systems
- Hydroponics

## Flow Schematics



RephiLe NuZar systems incorporate advanced technologies and optimized flow paths to ensure exceptional water quality for customers' applications.

Comprehensive process control management with continuous water purity monitoring after every purification step. This allows consistent and reliable operation which ensures the product meets the NuZar specifications.

## Installation Information

Plug-N-Play with only 3 steps

STEP 1



Connect Water Tubing

STEP 2



Connect Power Supply

STEP 3



Install Cartridges

Ready to go!!

## Ordering Info

Description	Cat. No.
NuZar water system set, U24	RN0U020T1K

## Specifications

General Specifications	NuZar U
Operating voltage	24 VDC
Input voltage	100 - 240 VAC
Main system power	< 190 W

Feed Water Requirements	
Feed water	Tap water
conductivity	< 2000 $\mu\text{S}/\text{cm}$
TDS	< 1000 ppm
Operating temperature	5 - 35 °C
Feed water pressure	1 - 6 bar (15 - 90 psi)

Product Water Type	Ultrapure & RO
	● ●

Dimensions	w/ integrated	491 x 422 x 624 mm
W x D x H	tank	(19.3 x 16.6 x 24.5 in)
Weight	net	21 kg
(Approximate)	gross	30 kg

### Product water Specifications

#### ● Ultrapure water

Dispenser rate	Up to 2 L/min
Resistivity (@25°C)	18.2 M $\Omega$ · cm
TOC	< 5 ppb*
Particles	No Particles with size > 0.22 $\mu\text{m}$ **
Microorganisms	< 0.001 cfu/ml**
Pyrogens (endotoxins)	< 0.001 Eu/ml***
RNase	< 0.5 pg/ml***
DNase	< 10 pg/ml***

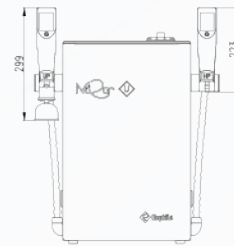
#### ● RO water

Production rate (@25°C)	24 L/hr
Conductivity (@25°C)	Typically < 20 $\mu\text{S}/\text{cm}$
RO rejection	97 to 98% ionic rejection (new RO cartridge) > 99% organic rejection > 99% particulates & bacteria rejection

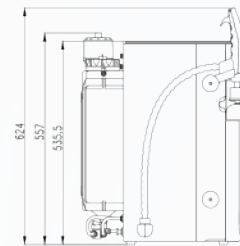
\*When TOC Level of feed water is < 50 ppb.

\*\*with a 0.2  $\mu\text{m}$  final filter

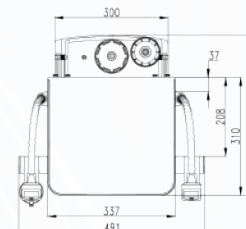
\*\*\*with a RephiBio filter and ISO Type I water standards



Front view



Side view



Top view