Rephile

# Large Genie

## Benchtop High Output Water Systems


**Daily pure water production**
**up to 1,900 L from tap water!**

# Overview

The Large Genie series is a mini high output water purification system introduced by RephiLe. Despite its small size, Large Genie is capable of producing large volumes of purified water with reliable quality. It is an ideal solution for users who need large quantity high quality pure water per day but have limited lab space. With a Large Genie, you can use your lab room more efficiently and enjoy numerous ancillary advantages associated with its small footprint. Most importantly, the system potentially can have a positive impact on your overall operational costs and helps improving the profitability position of your facility.

There are five different configurations- G,U,E,R and C in this series. No matter you need ultrapure water, EDI pure water, RO water of clinical grade of purified water, you can always find one model for your needs.

The systems are manufactured in ISO 9001:2015 and ISO 14001:2015 certified manufacturing sites. The systems are CE and RoHS certified.

A small footprint
to **maximize**
your lab space


# Selection Guide

Large Genie has 5 different configurations:
G, U, E, C and R.

Genie G & U produce two types of water from one system with TOC monitoring.

Production Rate:
EDI pure water (Type II water): 30/60 liters per hour

Clinical laboratory reagent water & RO pure water: 40/80 liters per hour

| System type / Production | Genie G 30 / 60 | Genie U 40 / 80 | Genie E 30 / 60 | Genie C 40 / 80 | Genie R 40 / 80 |
|---|---|---|---|---|---|
| Ultrapure water | ● | ● | | | |
| EDI pure water | ● | | ● | | |
| Clinical laboratory reagent water | | | | ● | |
| RO pure water | | ● | | | ● |

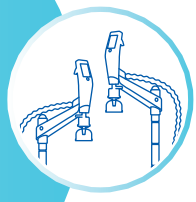
# Features

## Easy-to-place

- Built-in pretreatment pack including prefiltration, chlorine removal and anti-scaling media; Generally no extra pretreatment needed
- Placement flexibility-wall-mounted, on the bench or on top of a distribution module (optional)
- Modular design. Plug and play connections for quick install


## Easy-to-track

- RFID tracking of consumables, RO membranes and accessories to ensure optimal system performance and provide users with real-time operational intelligence
- Enhanced data management stores up to two years of historical information for service and review
- The ability to export and print data and log-in requirements are built into the system



## Easy-to-use

- “1+N mode” - one water system can drive N units of dispenser (Up to 10 now and can be upgraded further more).
- A RephiBio filter can be embraced to produce pyrogen, nuclease and bacteria free water for critical applications.

## Easy-to-control

- Large Genie equips with multiple touch screens which are highly responsive, water-proof, latex glove friendly, and perfect for wet labs.
- Intuitive display with comprehensive data views. No need to use additional paperwork or operating checklists.
- 9 display languages for selection
- RephiLink Mobile App enables remote control of the systems

## Easy-to-maintain

- No tools are needed for system maintenance and simple service.
- Automatic system shut-off upon detection of any water leakage

Compact size


Light weight

Low noise


Low shipping cost

Environmentally friendly

# Main Components

## Control Console: Command and control center

- 8-inch touch screen with highly intuitive navigation program, allowing total control and easy operation of the system
- Comfortable viewing and operation with built in viewing angle and flexible placement by users
- Operable with gloves and wet hands
- Robust screen: easy to clean, resistant to scratches

## Remote Dispenser: Smart and flexible

- Manual and volumetric dispensing, adjustable dispensing rate, and water quality monitoring
- Ergonomic dispenser allowing one-handed operation and control
- Operable with gloves and wet hands
- Height adjustable and 360 degree rotatable on an anti-skid base

## Cartridges: Powerful key of purification

- Improved stability of water quality & efficiency of polishing resins due to optimized flow design
- High pressure rated housings, proprietary sealing, and double O-ring design ensuring operational confidence
- A worry-free installation with two verifications: labels and RFID recognition

## Reservoir

- 30-500 liters separate tank available for selection. Smooth inner surface to minimize biofilm formation and algal growth
- Provision for easy cleaning and fully drainable; Spray ball installation for efficient, effective and dependable cleaning
- Unique reinforcing-bar design to prevent deformation

## Quality: Hassle free for you

**RO**
- Stable RO permeability over a wide range of water temperatures
- Optimized RO-reject water recovery loop to maximize water efficiency
- Specially made RO pack with increased flow rates and reduced size

**EDI** (for G & E)
- Exceptionally stable in producing high quality Type II water
- Consistently and predictably remove ionic species, including weakly ionized species
- A chemical-free process, free of safety, regulatory and environmental concerns

**U PACK** (for G & U)
- Two ultrapure cartridge options: general type and ultralow TOC type
- On-line TOC measurement based on complete oxidation methodology

**TANK**
- Consistent and accurate tank water level monitoring with a built-in continuous liquid level sensor
- Optional tank recirculation model guarantees water quality in the tank (Not for G and C models)
- Mercury-free germicidal UVC LED lamp (peak emission wavelength at 265 nm) equipped in tank sanitization module

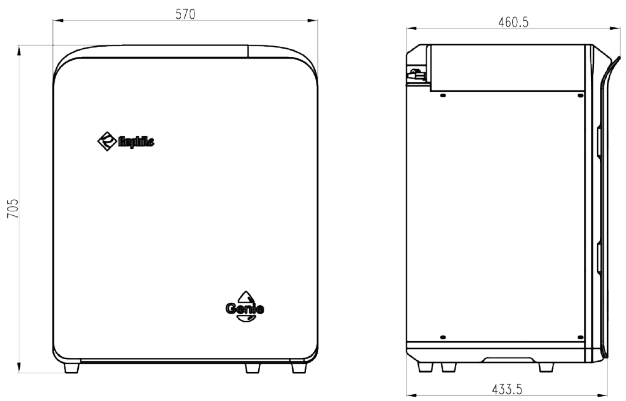
# Specifications

| | Genie G | Genie U | Genie E | Genie C | Genie R |
|---|---|---|---|---|---|
| Feed water | | | | | |
| Conductivity | < 2000 µS/cm @ 25 °C (TDS < 1000 ppm) | | | | |
| Temperature | 5 - 35 °C (41 - 95 °F) | | | | |
| Pressure | 0.2 - 0.6 MPa (2.0 - 6.0 bar) | | | | |
| Product water | Type I + Type II | Type I + RO | Type II | CLRW | RO |
| Flow rate | 30 / 60 L/hr | 40 / 80 L/hr | 30 / 60 L/hr | 40 / 80 L/hr | 40 / 80 L/hr |
| HP Dispenser rate | 0-2 L/min | 0-2 L/min | 0-2 L/min | 0-2 L/min | 0-2 L/min |
| UP Dispenser rate | 0-2 L/min | 0-2 L/min | - | - | - |
| Main system specifications | | | | | |
| Width x Depth x Height | 570 mm x 460 mm x 705 mm (22.5 in x 18.2 in x 27.5 in) | | | | |
| Weight (Net) | 46 kg | 38 kg | 44 kg | 38 kg | 36 kg |
| Input voltage | 220 VAC | 100-240 VAC | 220 VAC | 100-240 VAC | 100-240 VAC |
| Frequency | 50/60 Hz | 50/60 Hz | 50/60 Hz | 50/60 Hz | 50/60 Hz |
| Power | < 600 W | < 250 W | < 600 W | < 250 W | < 250 W |

## Product Water Quality

| | Ultrapure water (Type I) | EDI water (Type II) | CLRW | RO water |
|---|---|---|---|---|
| RO rejection | 97 to 98% ionic rejection (new RO cartridge)<br>> 99% organic rejection<br>> 99% particulates & bacteria rejection | | | |
| Resistivity (@25°C) | 18.2 MΩ · cm | > 5 MΩ · cm<br>(Typically 10-16 MΩ · cm) | > 10 MΩ · cm<br>(Typically > 16 MΩ · cm)* | > 0.05 MΩ · cm<br>(< 20 µS/cm)* |
| TOC | < 2 ppb** | < 30 ppb*** | < 30 ppb*** | N/A |
| Microorganisms**** | < 0.01 cfu/ml | < 10 cfu/ml | < 1 cfu/ml | N/A |
| Particles (> 0.2 µm)**** | No particles with size > 0.22 µm | N/A | No particles with size > 0.22 µm | N/A |
| Pyrogens (endotoxins)***** | < 0.001 Eu/ml | N/A | N/A | N/A |
| RNase***** | < 0.5 pg/ml | N/A | N/A | N/A |
| DNase***** | < 10 pg/ml | N/A | N/A | N/A |

*When feed water conductivity is < 500 µS/cm
**In the appropriate operating conditions, otherwise typically ⩽5 ppb.
***In the appropriate operating conditions
**** with a 0.2 µm final filter
***** with a RephiBio filter



# Main Applications

## Ultrapure Water

- HPLC mobile phase preparation
- Preparation of reagent blank solutions
- As sample diluent for GC, HPLC, ICP-MS, AA and other analytical techniques
- Preparation of buffers and culture media for mammalian cell culture
- Preparation of molecular biology reagents

## EDI Water

- Preparation of chemical and bio-reagents
- Preparation of culture media
- Preparation of solutions for chemical analysis such as HPLC and ICP
- For clinical analyzers
- Medical device and equipment rinsing
- For serum and blood fractionation
- For ophthalmics

## Clinical laboratory reagent water

- Dilution of clinical reagents, samples and detergents
- Automatic medical device and equipment rinsing
- Reaction cuvettes cleaning
- Feeding washing stations for probe tips and stirrer paddles
- Temperature controlled Incubator baths
- An interface between syringe and sample

## RO Water

- Glassware cleaning
- Washing machine for glassware
- Water bath water
- Autoclave
- Feed water for laboratory animals

# Ordering Info

| Description | Cat. No. |
|---|---|
| Genie G 30 System, with TOC | RG0G030T0 |
| Genie G 60 System, with TOC | RG0G060T0 |
| Genie U 40 System, with TOC | RG0U040T0 |
| Genie U 80 System, with TOC | RG0U080T0 |
| Genie E 30 System | RG0E03000 |
| Genie E 60 System | RG0E06000 |
| Genie C 40 System | RG0C04000 |
| Genie C 80 System | RG0C08000 |
| Genie R 40 System | RG0R04000 |
| Genie R 80 System | RG0R08000 |

# Water Quality Compliance

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

EDI product water meets or exceeds Type II water quality as defined by ASTM, CAP, CLSI and ISO 3696 / BS 3997 and also complies with the Purified Water requirements from the European and U.S. Pharmacopoeia.

Quality of CLRW meets clinical laboratory reagent water (CLRW) standards that complies with the CLSI® guideline.