

# Genie G

## 5 / 10 / 15



**A single unit for Type I ultrapure & Type II pure water from tap water**

This simple-to-use water system combines optimized sequence of water purification technologies in a compact unit. It offers desired solutions for research professionals who work with varieties of applications utilizing both Type I ultrapure and EDI pure water in the lab. It is fully-integrated, reliable and sustainable.

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

The system is manufactured in ISO 9001:2015 and ISO 14001:2015 certified manufacturing sites. The system is CE and RoHS certified.

## Features

- Wireless communication amongst components providing unlimited possibilities
- RFID tracking of consumables and RO membranes to ensure optimal system performance
- On-line TOC measurement based on complete oxidation methodology
- Exceptionally consistent and predictable high purity Type II water from the best in class EDI (electrodeionization) module
- Stable RO permeability over a wide range of water temperatures
- A full range of cartridges for various applications including ultra-low TOC, low Mg, low boron, ICP and DI type
- Consistent and accurate tank water level monitoring with a built-in continuous liquid level sensor in the storage tank
- Tank recirculation model guarantees water quality in the tank
- Automatic system shut-off upon detection of any water leakage
- Placement flexibility- on the bench, under the sink or wall-mounted to save valuable space within a lab
- 9 display languages for selection

- Advanced wireless communication technologies offer more freedom than ever for a remote dispenser. Its distance from the system is no longer limited by the length of cables or wires, and can be discretely set up into a hood or a clean room.
- "1+N mode" - one water system can drive N units of dispenser (Up to 10 now and can be upgraded further more).
- Genie equips with multiple touch screens which are highly responsive, water-proof, latex glove friendly, and perfect for wet labs.
- Monitoring of consumables and accessories, through RFID technology, provides users with real-time operational intelligence.
- The ability to export and print data and log-in requirements are built into all of our Genie systems.
- Feed water conductivity monitoring ensures an optimal running conditions of the system.
- A RephiBio filter can be embraced to produce pyrogen, nuclease and bacteria free water for critical applications.
- No tools are needed for system maintenance and simple service.

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## Main Applications

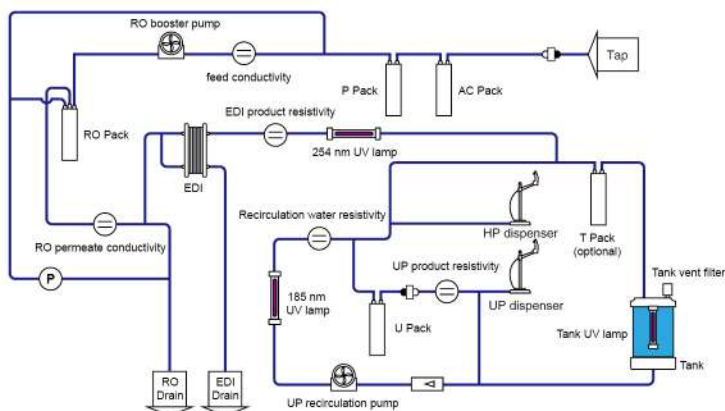
### With Ultrapure Water

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

### With 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

## Flow Chart



## Main Components



Control Console



Remote Dispenser



Cartridges



Tank

### 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

### Smart and flexible remote dispensers

- 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

### 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 designs ensuring operational confidence
- A worry-free installation with three verifications: color, labels, and RFID recognition

### Reservoir

#### Specifications

|                        | 30 L Tank                                | 60 L Tank                                | 100 L Tank                                |
|------------------------|--|--|---|
| Materials              | HDPE                                     | HDPE                                     | HDPE                                      |
| Width × depth × height | 42 x 34 x 58 cm<br>16.5 x 13.4 x 22.8 in | 42 x 34 x 82 cm<br>16.5 x 13.4 x 32.3 in | 55 x 27 x 138 cm<br>21.7 x 10.6 x 54.3 in |
| Dry weight             | 7 kg                                     | 11 kg                                    | 35 kg                                     |
| Operating weight       | 37 kg                                    | 71kg                                     | 135 kg                                    |

## Ordering Info

| Description                 | Cat. No.  |
|-----------------------------|-----------|
| Genie G 5 System, with TOC  | RG0G005T0 |
| Genie G 10 System, with TOC | RG0G010T0 |
| Genie G 15 System, with TOC | RG0G015T0 |



## Specifications

### Product Water Quality

| Genie G  |  |
|--|--|
| EDI water (Type II)                                  |  |
| Flow rate  | 5, 10, 15 L/hr   |
| Dispenser rate                                       | Up to 2 L/min  |
| RO rejection   | 97 to 98% ionic rejection (new RO cartridge),<br>> 99% organic rejection,<br>> 99% particulates & bacteria rejection |
| Resistivity (@25°C)                                  | > 5 MΩ·cm (typically 10 - 16 MΩ·cm)  |
| TOC  | < 30 ppb   |
| Ultrapure water                                      |  |
| Dispenser rate                                       | Up to 2 L/min  |
| Resistivity (@25°C)                                  | 18.2 MΩ·cm   |
| TOC*   | < 2 ppb  |
| Particles (> 0.2 μm)**                               | No particles with size > 0.22 μm   |
| Microorganisms**                                     | < 0.01 cfu/ml  |
| Pyrogens (endotoxins)***                             | < 0.001 Eu/ml  |
| RNase***   | < 0.5 pg/ml  |
| DNase***   | < 10 pg/ml   |
| Water stored in tank (for tank recirculation models) |  |
| Resistivity (@25°C)                                  | > 1 MΩ·cm (default), adjustable  |

\* In the appropriate operating conditions, otherwise typically ≤5 ppb.

\*\* with a 0.2 μm final filter

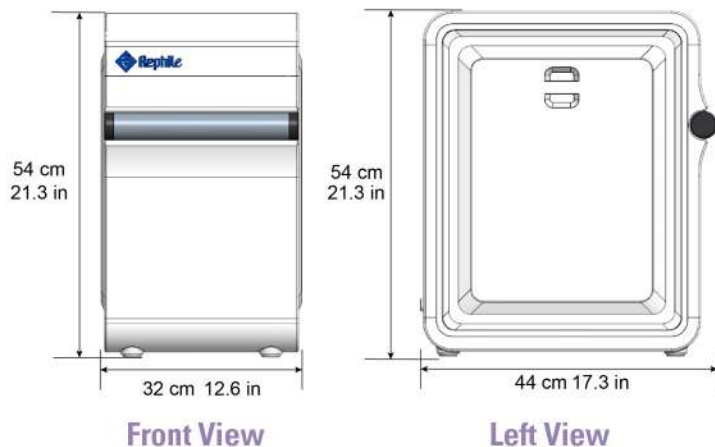
\*\*\* with a RephiBio filter

### Feed Water & Environment Requirements

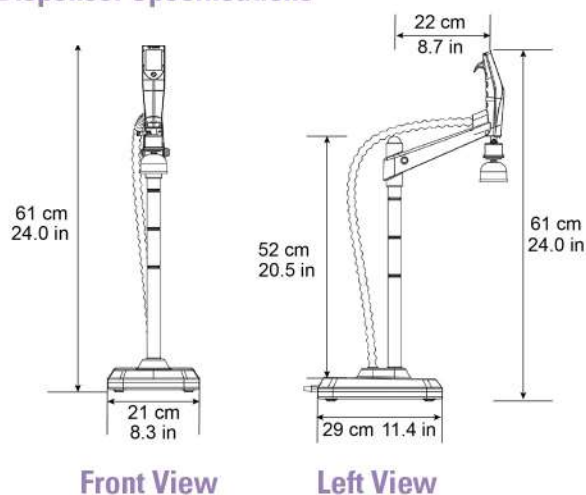
| Genie G                          |                                     |
|----------------------------------|-------------------------------------|
| Feed water                       | Tap water                           |
| Conductivity                     | < 2000 μS/cm@25 °C (TDS < 1000 ppm) |
| Temperature                      | 5 - 35 °C (41 - 95 F)               |
| Pressure                         | 0.1 - 0.6 MPa (1.0 - 6.0 bar)       |
| pH                               | 4 - 10                              |
| Hardness (as CaCO <sub>3</sub> ) | < 180 mg/L (180 ppm)*               |
| TOC                              | < 2000 ppb                          |
| Silica                           | < 30 mg/L (< 30 ppm)                |
| Dissolved CO <sub>2</sub>        | < 30 mg/L (< 30 ppm)                |
| Langlier saturation index (LSI)  | < 0.3                               |
| SDI                              | ≤ 3                                 |
| Free chlorine                    | < 1.5 mg/L (< 1.5 ppm)              |
| Environment                      |                                     |
| Operational temperature          | 5 - 45 °C (41 - 113 F)              |
| Humidity                         | 20 - 80%                            |

\* > 180 ppm: softener recommended

### Main System Specifications



### Dispenser Specifications



| Genie G                   |                            |
|---------------------------|----------------------------|
| System weight             | < 20 kg                    |
| Control console weight    | 0.75 kg                    |
| Input voltage / frequency | 100 - 240 VAC / 50 - 60 Hz |
| Operating voltage         | 24 VDC                     |
| Power                     | < 200 W                    |
| Data connection           | CAN / USB / SD / WIFI      |

| Dispenser   |                |
|---|----------------|
| Weight  | 5 kg           |
| Dispenser tubing length                           | 1 m (3.3 ft)   |
| Distance from main system to dispenser (wire)     | 3 m (9.8 ft)   |
| Distance from main system to dispenser (wireless) | 10 m (32.8 ft) |
| Operating voltage                                 | 24 VDC         |

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