

# 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
- Mercury-free UVC LED (emitting at 265 nm) lamp to achieve excellent germicidal efficiency
- 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

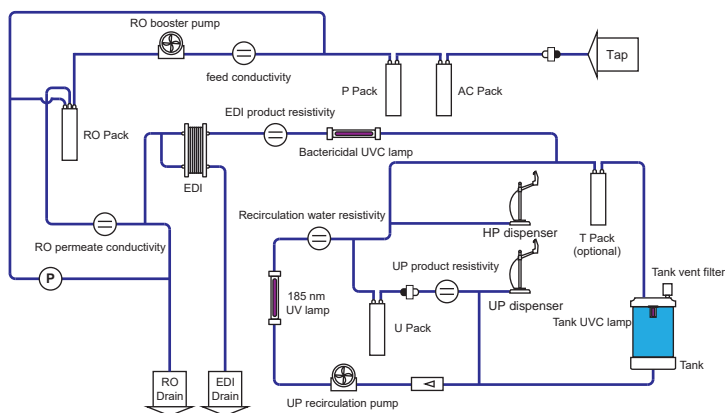
### With Ultrapure Water

- 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 x depth x height	42 x 34 x 61 cm 16.5 x 13.4 x 24.0 in	42 x 34 x 85 cm 16.5 x 13.4 x 33.5 in	55 x 27 x 138 cm 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), > 99% organic rejection, > 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**	< 0.001 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

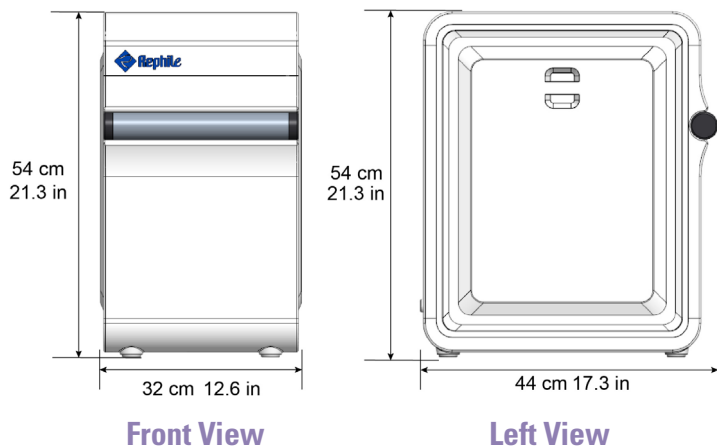
\*\*\* with a RephiBio filter

### Feed Water & Environment Requirements

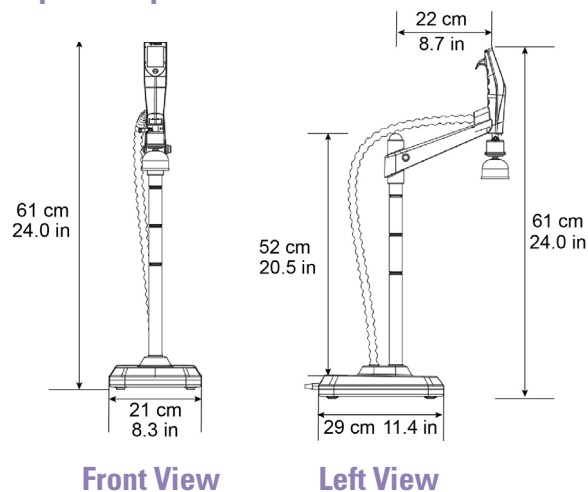
Genie G	
Feed water	Tap water
Conductivity	< 2000 µS/cm@25 °C (TDS < 1000 ppm)
Temperature	5 - 35 °C (41 - 95 °F)
Pressure	0.1 - 0.6 MPa (1.0 - 6.0 bar)
pH	4 - 10
Hardness (as CaCO <sub>3</sub> )	< 180 mg/L (180 ppm)*
TOC	< 2000 ppb
Silica	< 30 mg/L (< 30 ppm)
Dissolved CO <sub>2</sub>	< 30 mg/L (< 30 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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