

# Super-Genie Water Stations

Centralized workstations with daily pure water production up to 14000 L from tap feed water



The Super-Genie series is an intelligent combination of thorough understanding of diverse laboratory applications together with decades of hands-on expertise in the most advanced water purification technologies. The systems are specifically designed to produce large volumes of RO, Type II pure water or ultrapure water directly from tap water. The Super-Genie purification system is created to serve as a core workstation generating purified water for a single lab facility or several labs, providing overall control and monitoring within the whole water purification network thus to ensure reliability from the very beginning.

Quality of product water meets or exceeds standards as defined by ASTM, CAP, CLSI, ISO 3696 / BS 3997, European and U.S. Pharmacopoeia.

## Features

- Pure or ultrapure water dispensing from dispensers
- Integrated control of water purification, storage, distribution as well as all other functions
- Built-in pretreatment pack including prefiltration, chlorine removal and anti-scaling media
- Optimized RO-reject water recovery loop to maximize water efficiency
- RO removes >95% of ions and large molecules; >99% of microorganisms, particles and bacteria
- Leak protector incorporated inside to shut down the water flow should a leak occur
- Integrated 100 L reservoir, upgradable for appropriate volume needs
- Mercury-free UVC LED (emitting at 265 nm) lamp to achieve excellent germicidal efficiency
- Emergency bypass loop for maximum operation reliability
- Display in multiple languages
- Microprocessor controlled system

*One solution for all!*

Four types of water purification systems in Super-Genie series based on your application needs:

### Super-Genie G

- Produces Type I ultrapure and Type II analytical grade pure water from tap water directly
- Type II water production rate reaches 125 L/h, Type I water dispensing rate up to 2 L/min
- Incorporates the best in class IonPure EDI module
- On-line TOC measurement based on complete oxidation methodology

### Super-Genie U

- Produces Type I ultrapure and reverse osmosis (RO) laboratory grade water from tap water directly
- RO water production rates range from 150 to 300 L/h, Type I water dispensing rate up to 2 L/min
- On-line TOC measurement based on complete oxidation methodology

### Super-Genie E

- Produce Type II water from tap water directly
- Production rates range from 125 to 500 L/h, dispensing rate up to 2 L/min
- Incorporates the best in class IonPure EDI module

### Super-Genie R

- Produces reverse osmosis (RO) laboratory grade water from tap water directly
- RO water production rates range from 150 to 600 L/h, dispensing rate up to 2 L/min



# Specifications

## Product Water Quality

	Super-Genie G	Super-Genie U	Super-Genie E	Super-Genie R
Water produced	Type II & ultrapure water	RO & ultrapure water	Type II water	RO water
Water production rate (@25°C)	Type II: 125 L/hr	RO water: 150/300 L/hr	Type II: 125/250/500 L/hr	RO water: 150/300/600 L/hr
Dispensing rate (@25°C)	Up to 2 L/min	Up to 2 L/min	Up to 2 L/min	Up to 2 L/min
RO rejection	> 95% ionic rejection, > 99% particulates rejection, > 99% organic rejection			
Pure water resistivity (@25°C)	> 5 MΩ · cm (typically 10 - 16 MΩ · cm)	typically > 0.05 MΩ · cm (< 20 μS/cm)	> 5 MΩ · cm (typically 10 - 16 MΩ · cm)	typically > 0.05 MΩ · cm (< 20 μS/cm)
Pure water TOC*	< 30 ppb	-	< 30 ppb	-
Ultrapure water resistivity (@25°C)	18.2 MΩ · cm	18.2 MΩ · cm	-	-
Ultrapure water TOC*	< 2 ppb	< 2 ppb	-	-
Particles in ultrapure water (>0.2 μm)	< 1/ml **	< 1/ml **	-	-
Microorganisms in ultrapure water	< 0.1 cfu/ml **	< 0.1 cfu/ml **	-	-
Pyrogens (endotoxins) in ultrapure water	< 0.001 Eu/ml ***	< 0.001 Eu/ml ***	-	-

\* In the appropriate operating conditions, otherwise typically ≤ 5 ppb. \*\* with a 0.2 μm or RephiBio filter. \*\*\*with a RephiBio filter.

## Feed Water Requirements

	Super-Genie
Feed water	Tap water
TDS / Conductivity	< 1000 ppm / < 2000 μS/cm
Temperature	5 - 35 °C
Pressure	2 - 6 bar (30 - 90 psi)
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)

## Operating Requirements

	Super-Genie
Operational temperature	5 - 45 °C (41 - 113 F)
Humidity	20 - 80%

## Installation Site Requirements

	Super-Genie
Installing area size	> 4 m <sup>2</sup> (According to the actual configuration)
Floor carrying weight	> 500 kg/m <sup>2</sup>
Feed water	outlet diameter > DN 25, ball valve, NPT thread
Drain water tubing	> DN 50
Floor drain	Near the installed location
Power outlet	220 VAC ± 10%, 3 KW (14 Amp)

## Main System Specifications

	Super-Genie G	Super-Genie U	Super-Genie E	Super-Genie R
Length x Depth x Height	with 100 L tank: 56 cm × 88 cm × 138 cm (22.0 in × 34.6 in × 54.3 in) w/o 100 L tank: 56 cm × 61 cm × 138 cm (22.0 in × 24.0 in × 54.3 in)			
Weight	< 160 kg	< 140 kg	< 160 kg ( E500, < 180 kg)	< 140 kg ( R600, < 160 kg)
Voltage / Frequency	220 VAC ± 10%, 50 Hz or 60 Hz ( E500, 380V)			
Main system power	< 1500 W	< 1000 W	< 1500 W ( E500, < 2000 W)	< 1000 W ( R600, < 1500 W)
Noise level	< 70 dB at 1 meter			

## Prefiltration System Specifications

	RephiTEKT X
Dimensions	90 x 70 x 120 cm
L x D x H	35.4 x 27.6 x 47.2 in
Dry Weight	230 kg
Power	600 W
Motor/Voltage	220 V, 50 Hz / 220 V, 60 Hz

## Tank System Specifications

	100 L tank	350 L tank
Tank Materials	HDPE	HDPE
Dimensions	55 x 27 x 132 cm	55 x 72 x 132 cm
L x D x H	21.7 x 10.6 x 52.0 in	21.7 x 28.3 x 52.0 in
Dry Weight	35 kg	80 kg
Operational Weight	135 kg	430 kg

## Ordering Information

Description	Voltage	Integrated 100 L tank	Cat. No.
Super-Genie G 125 Water System	220 VAC/50 Hz	w	RL0G01HT1
		w/o	RL0G01H00
	220 VAC/60 Hz	w	RL1G01HT1
		w/o	RL1G01H00
Super-Genie U 150 Water System	220 VAC/50 Hz	w	RL0P01HT1
		w/o	RL0P01H00
	220 VAC/60 Hz	w	RL1P01HT1
		w/o	RL1P01H00
Super-Genie U 300 Water System	220 VAC/50 Hz	w	RL0P03HT1
		w/o	RL0P03H00
	220 VAC/60 Hz	w	RL1P03HT1
		w/o	RL1P03H00
Super-Genie E 125 Water System	220 VAC/50 Hz	w	RL0E01HT1
		w/o	RL0E01H00
	220 VAC/60 Hz	w	RL1E01HT1
		w/o	RL1E01H00
Super-Genie E 250 Water System	220 VAC/50 Hz	w	RL0E02HT1
		w/o	RL0E02H00
	220 VAC/60 Hz	w	RL1E02HT1
		w/o	RL1E02H00
Super-Genie E 500 Water System	380 VAC/50 Hz	w/o	RL0E05H00
Super-Genie R 150 Water System	220 VAC/50 Hz	w	RL0R01HT1
		w/o	RL0R01H00
	220 VAC/60 Hz	w	RL1R01HT1
		w/o	RL1R01H00
Super-Genie R 300 Water System	220 VAC/50 Hz	w	RL0R03HT1
		w/o	RL0R03H00
	220 VAC/60 Hz	w	RL1R03HT1
		w/o	RL1R03H00
Super-Genie R 600 Water System	220 VAC/50 Hz	w/o	RL0R06H00
	220 VAC/60 Hz	w/o	RL1R06H00

## Main Applications

### With Ultrapure Water

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

### With Type II (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

### With RO Laboratory Grade Water

- Manual cleaning and glassware rinsing
- Buffer preparation
- Glassware washers
- Humidifiers
- Water baths
- Aging tester
- Autoclave
- Laboratory animal feed