Rephile

Genie Water Systems

RephiLe, *Re*volution in *Fi*ltraion

Contents

- Highlights
- Features
- Specifications
- System Types
- Components
- Main Competition

Revolution in Filtration

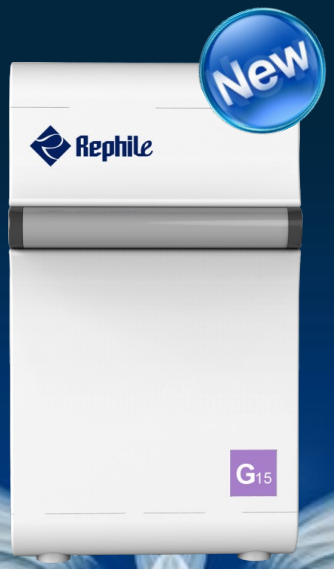
Highlights

Revolution in Filtration

Rephile

What is a

Genie ?



It is powerful

It is Smart

It makes things Easier

It expands YOUR possibilities !

Wireless communication

Rephile

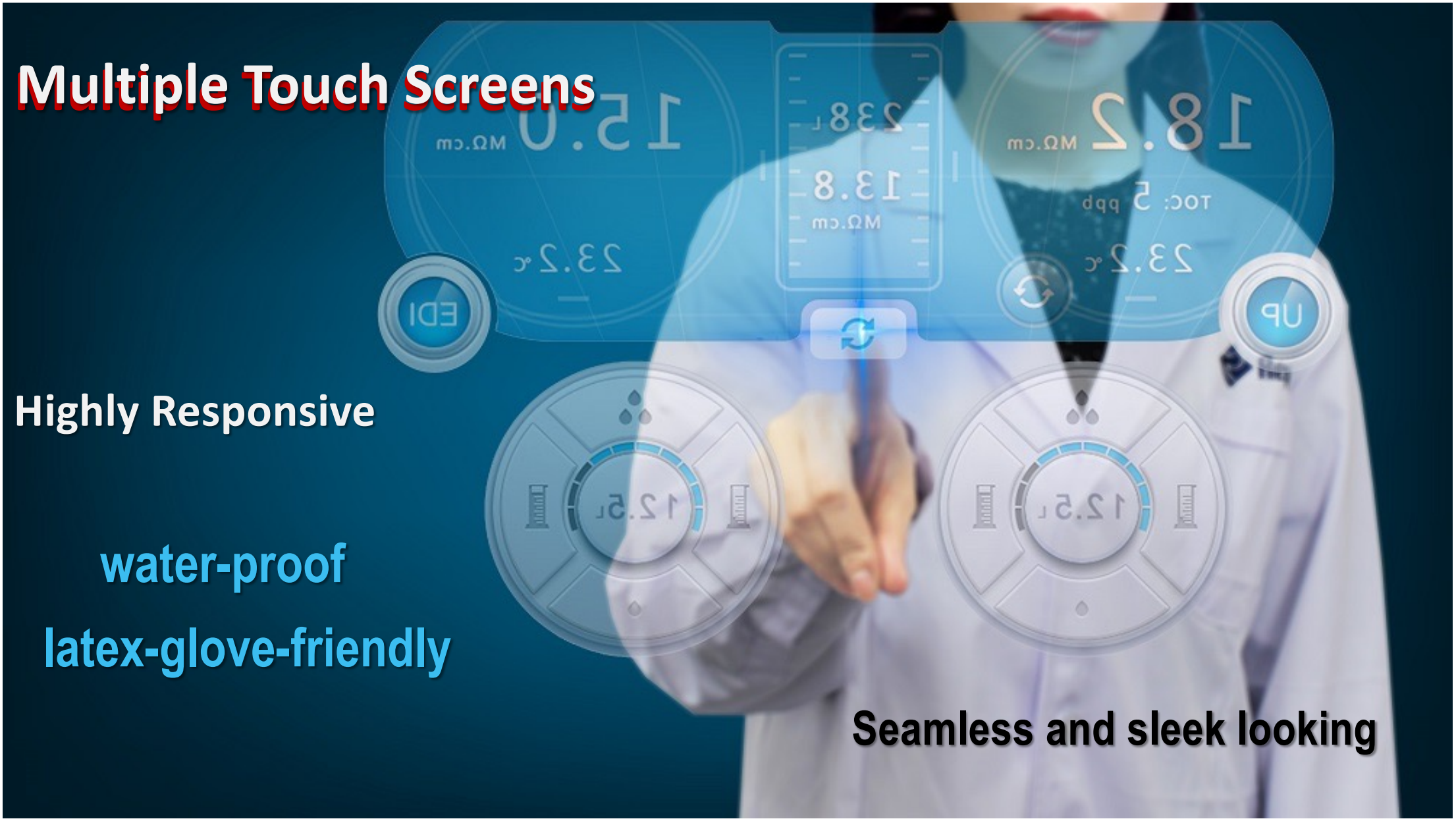
Place freely as you desire !

E-connection expands your possibilities

What's new – 1+N mode

Wireless communication

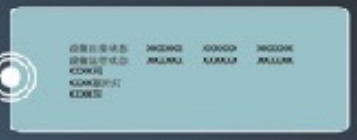
One water system can
drive **N** units of dispenser
(N=1,2,3,4,5…)


Multiple Touch Screens
Highly Responsive
water-proof
latex-glove-friendly
Seamless and sleek looking

Intelligence

Consumables can be monitored via RFID technology

Operation status is in control



Multiple languages

Alarms and alerts

Data management stored for up to two years

Data can be exported

Traceability


Internet
Rephile
Remote control and
monitor system operation
status continuously, assist
in service and
maintenance via remote
assistance technology.

Features

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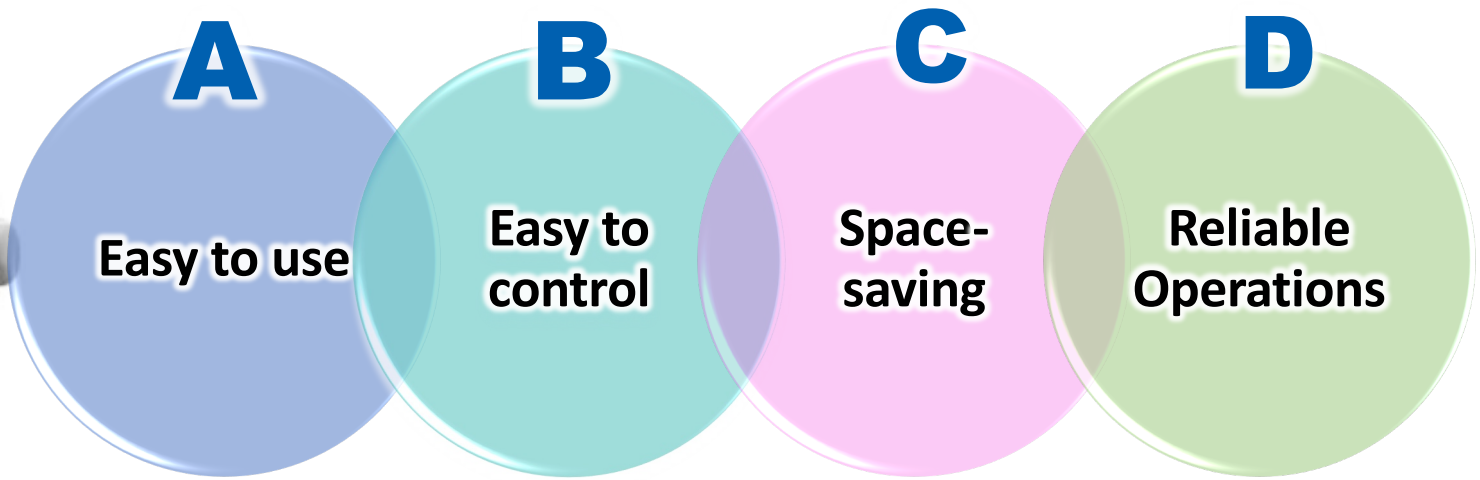
Features



A. Large size Monitors and Wireless Communication
B. Touch Screens and RFID technology
C. Modular Design
D. Advanced Water Purification Technologies

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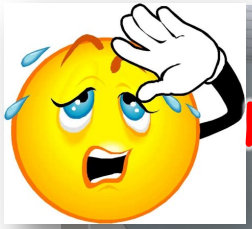
Easy to Install

- Tool-free installation
- Worry-free installation of consumables and key components

Precisely in the RIGHT position!



How come ~
Up side down!!

- Three verification checks for proper cartridge installation
  - a) label designation
  - b) cartridge color
  - c) RFID tags

Perfect placement !

It takes under 30 minutes to install a Genie if utilities are available.

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Easy to use

- Touch screens on the main monitor and dispensers display key parameters at finger tips.
- Placement of dispenser, monitor and system more flexible than ever, no longer limited by the length of cables and wires
- Modules can be updated or added freely to personalize the functions anytime needed
- Users can order consumables on the control console or via the RephiBlue app.

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Easy to control

- Multiple touch screens
  a) a main monitor b) dispensers
- Performance history and maintenance data of consumables as well as key parts are traceable any time when needed.
- Remote control and diagnosis. Easy and efficient monitoring and troubleshooting.
- Optional tank circulation mode guarantees high water quality throughout the storage period.

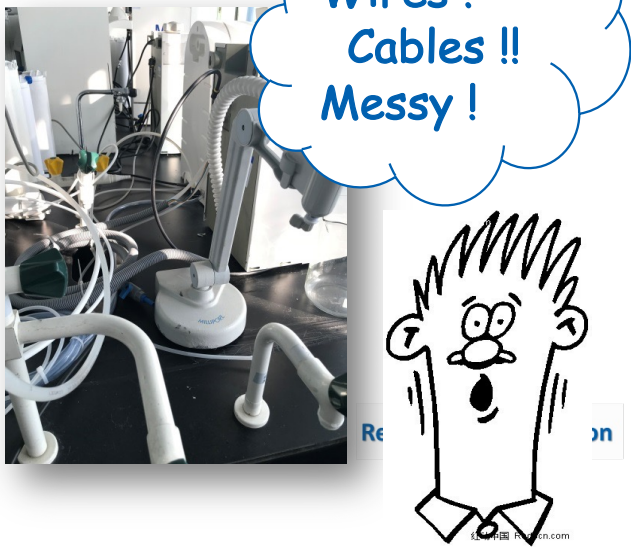

MODERN LABORATORY

RFID

Revolution in Filtration

Big Space-saver

- The main system can be wall-mounted, set under the sink, or tucked away.
- The main monitor can be on the bench or inside a drawer.
- Dispenser handle can be on the dispenser stand, on the main system, or even hanging onto other places.
- Easy to maintain a clean and tidy lab without tangled wires and cables



Reliable Operations

- Automatic temperature compensation allows RO production rate stable over a wide range of temperature
- Optimized flow pathway enhances system purification efficiency of ion-exchange and reliability of product water quality
- Minimal risks of water leakage- Double sealing O-rings for cartridges
- Signature verification for maintenance and service meets the requirement of data reliability and traceability.

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Specifications

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New System Type

		Genie G	Genie U	Genie A	Genie E	Genie R	PURIST
Feed Water		Municipal water	Municipal water	Municipal water	Municipal water	Municipal water	Pure water
Product Water	**Type I**	√	√	√			√
	Type II	√			√		
	RO Water (Type III*)		√	√		√	

* The feed water conductivity is less than 250 μS/cm

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Feed Water Requirements

	Genie G	Genie U	Genie A	Genie E	Genie R	PURIST
Feed Water	Municipal water	Municipal water	Municipal water	Municipal water	Municipal water	Pure water
Conductivity	< 2000 µS/cm	< 2000 µS/cm	< 1000 µS/cm	< 2000 µS/cm	< 2000 µS/cm	< 100 µS/cm
Temperature	5 - 45 ℃	5 - 45 ℃	5 - 45 ℃	5 - 45 ℃	5 - 45 ℃	5 - 45 ℃
Pressure range	1 - 6 kg/cm^2 (15 - 90 psi)	1 - 6 kg/cm^2 (15 - 90 psi)	1 - 6 kg/cm^2 (15 - 90 psi)	1 - 6 kg/cm^2 (15 - 90 psi)	1 - 6 kg/cm^2 (15 - 90 psi)	0 - 1 kg/cm^2 (0 - 15 psi)

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Product Water Specifications

	Genie G	Genie U	Genie A	PURIST	Genie E	Genie R
Pure water rate	5, 10, 15 L/hr	12, 24, 32 L/hr	32 L/hr	-	5, 10, 15 L/hr	12, 24, 32 L/hr
Pure water resistivity(@ 25℃)	> 5 MΩ·cm (typically 10 - 15 MΩ·cm)	> 0.05 MΩ·cm (typically)	> 0.05 MΩ·cm (typically)	-	> 5 MΩ·cm (typically 10 - 15 MΩ·cm)	> 0.05 MΩ·cm (typically)
Pure water TOC	< 30 ppb	-	-	-	< 30 ppb	-
Ultrapure water resistivity	18.2 MΩ·cm				-	-
Ultrapure water TOC*	TOC < 5 ppb				-	-
Particles(> 0.2 μm)	< 1/ml (with 0.2 μm final filter)				-	-
Bacteria	< 0.1 cfu/ml (with 0.2 μm final filter or Biofilter)				-	-
Pyrogens	< 0.001 Eu/ml (with RephiBio filter)				-	-
RNAse	< 0.5 pg/ml (with RephiBio filter)					
DNAse	< 10 pg/ml (with RephiBio filter)					

Main System Specifications

	Genie G	Genie U	Genie A	Genie E	Genie R	PURIST
Pure water quality	Resistivity / Temperature	Conductivity/ Temperature	Conductivity/ Temperature	Resistivity / Temperature	Conductivity/ Temperature	
Feed water quality	Conductivity / Temperature					Conductivity/ Temperature
UP water quality	Resistivity / TOC / Temperature	Resistivity / TOC / Temperature	Resistivity / TOC / Temperature	-	-	Resistivity / TOC / Temperature
Tank information	Tank level					Optional*
Volumetric dispensing	0.1 L - 99.9 L					
Dispensing rate	0 - 2 L/min					
Language	Control console: Chinese, English, French, Spanish, German, Italian, …					

* It will display tank level when equipping a tank.

Main System Specifications

Rephile

	Genie G	Genie U	Genie A	Genie E	Genie R	PURIST
Main System Width × depth x height	32*44*55 cm					
Dispenser Width × depth x height	21*29*61 cm					
Control Console Length x width	22*17 cm					
System Weight	20 kg	20 kg	20 kg	19 kg	18 kg	17 kg
Dispenser Weight	5 kg					
Control Console Weight	0.75 kg					
Input Voltage	110-240 VAC					
Operating Voltage	24 VDC					
Main System Power	< 200 W					

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Configuration

	Genie G	Genie U	Genie A	Genie E	Genie R	PURIST
AC Pack	Yes	Yes	No	Yes	Yes	No
P Pack	Yes	Yes	Yes	Yes	Yes	No
H Pack	No	Yes	No	No	No	Yes
U Pack	Yes	Yes	Yes	No	No	Yes
T Pack	Optional	Optional	No	Optional	Optional	No
254 UV lamp	Yes	No	No	Yes	No	No
185 UV lamp	Yes	Yes	Yes	No	No	Yes
EDI module	Yes	No	No	Yes	No	No
RO Pack	Yes	Yes	Yes	Yes	Yes	No
Tank	Yes	Yes	No	Yes	Yes	Optional
UP water dispenser	Yes	Yes	Yes	No	No	Yes
Pure water dispenser	Optional	Optional	Optional	Optional	Optional	No
TOC	Yes	Optional	Optional	No	No	Optional

System Type

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Genie G

Features

- Produce ultrapure and EDI water from tap water directly.
- On-line TOC monitor based on complete oxidation methods
- 254 nm lamp and dual-wavelength UV lamp
- AC Pack、P Pack 、U Pack
- G 5: one RO pack——RR70R0501

  G 10: two RO packs——RR70R0501

  G 15: two RO packs——RR70R1001
- At least one UP water dispenser

Catalog No.	Description
RG0G005T0	Genie G 5 Water System with TOC
RG0G010T0	Genie G 10 Water System with TOC
RG0G015T0	Genie G 15 Water System with TOC

Similar to

Milli-Q Integral

arium comfort II

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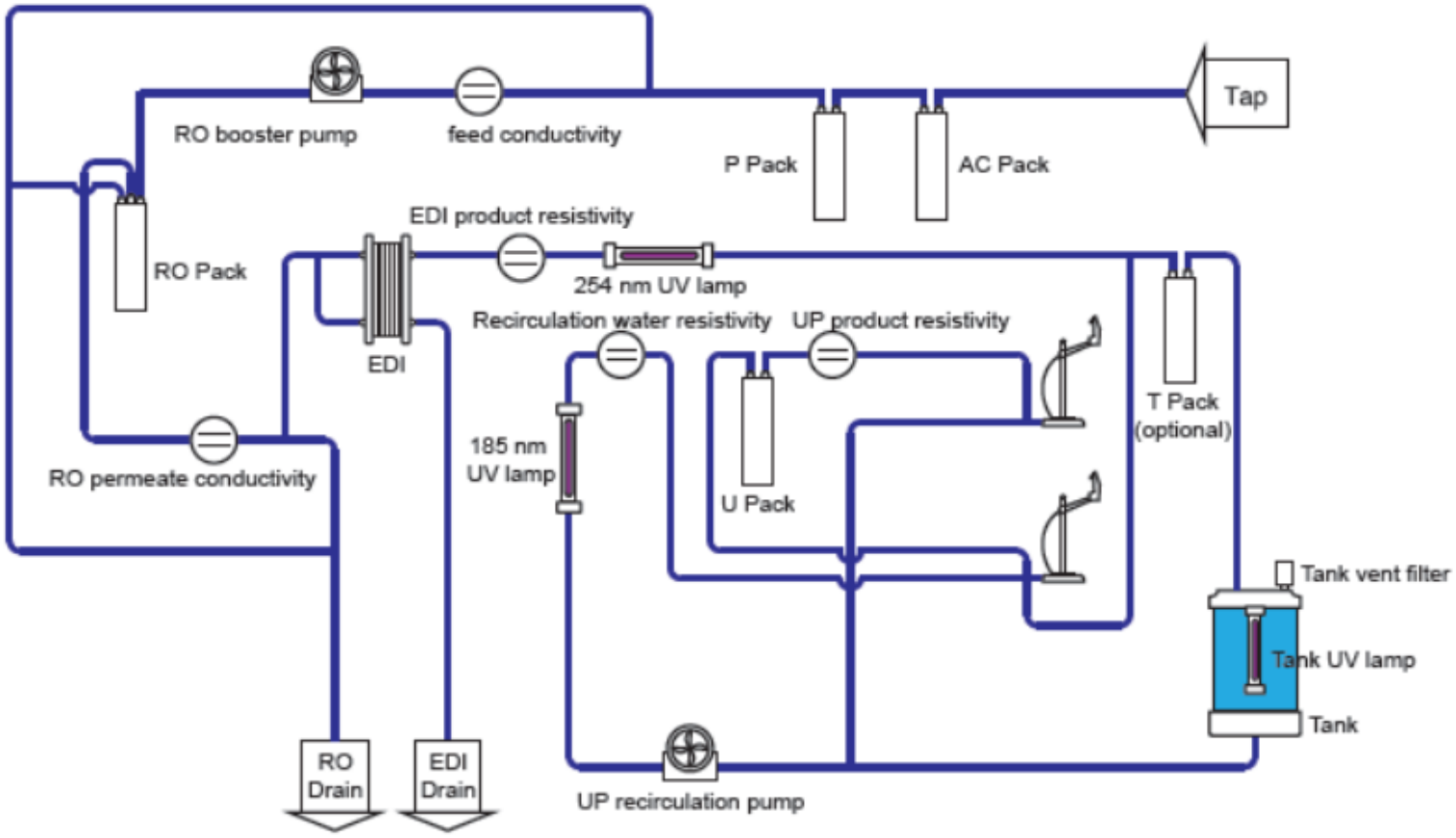
Genie G Water Flow Diagram



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Genie U

Catalog No.	Description
RG0U01000	Genie U 12 Water System
RG0U010T0	Genie U 12 Water System with TOC
RG0U02000	Genie U 24 Water System
RG0U020T0	Genie U 24 Water System with TOC
RG0U03000	Genie U 32 Water System
RG0U030T0	Genie U 32 Water System with TOC

Features

- Produce ultrapure and RO water from tap water directly.
- On-line TOC monitor based on complete oxidation methods (optional)
- Dual-wavelength UV lamp
- AC Pack、 P Pack、H Pack、U Pack
- U 12: one RO Pack——RR70R1001
  U 24: two RO Pack——RR70R1001
  U 32: two RO Pack——RR70R1501
- At least one UP water dispenser

Competitor's

Milli-Q Direct

arium comfort I

cascada 1 3

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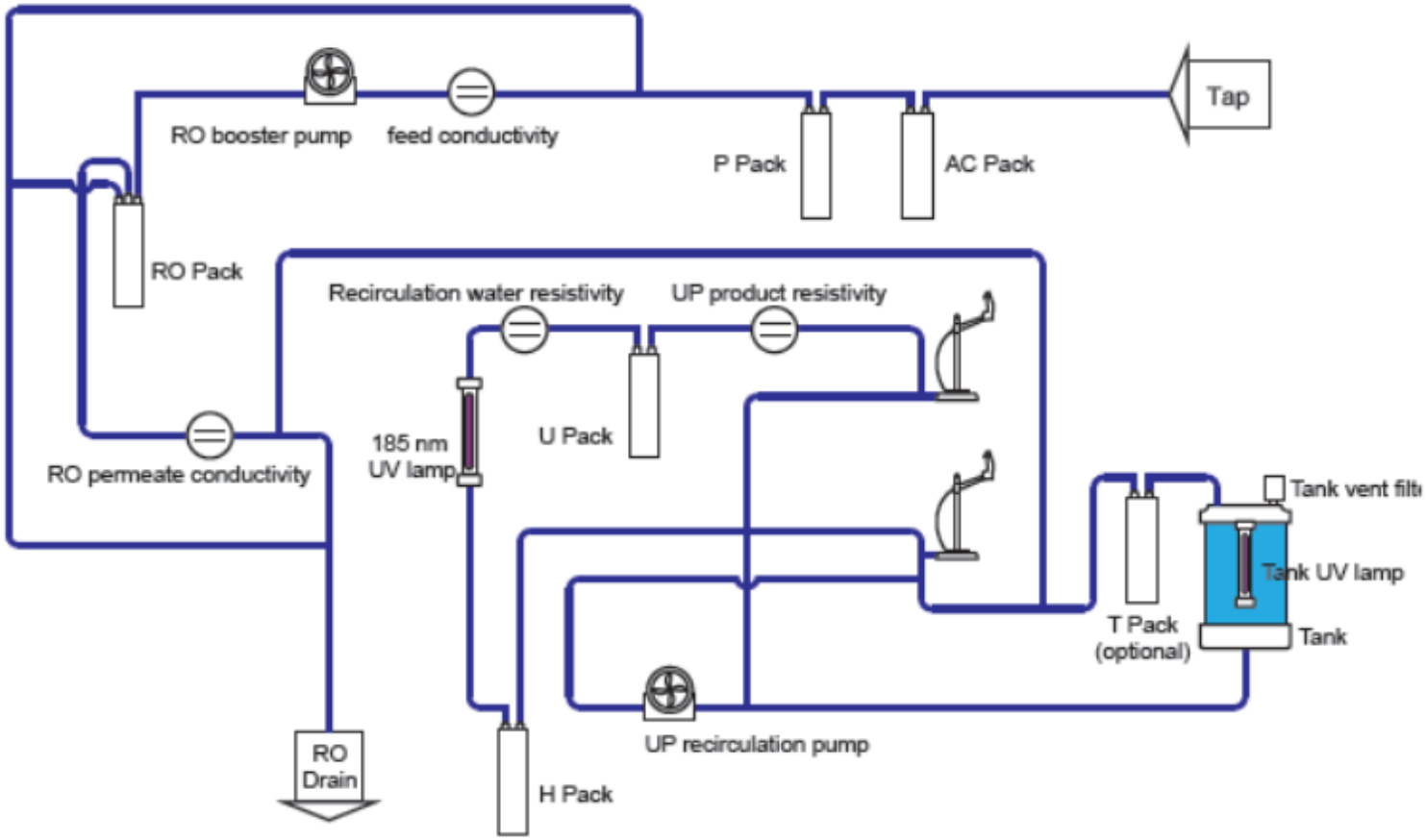
Genie U Water Flow Diagram



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Genie A

Catalog No.	Description
RG0A04000	Genie A Water System

Features

- Produce ultrapure and RO water from tap water directly.
- Dual-wavelength UV lamp
- No storage tank
- P Pack、U Pack
- Two RO Pack——RR70R1501
- Flowrate: 32 L/h
- Two dispensers equipped on the main system

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Genie E

Catalog No.	Description
RG0E00500	Genie E 5 Water System
RG0E01000	Genie E 10 Water System
RG0E01500	Genie E 15 Water System

Features

- Produce EDI water from tap water directly.
- 254 nm lamp
- AC Pack、P Pack
- E 5: one RO pack——RR70R0501
  E 10: two RO packs——RR70R0501
  E 15: two RO packs——RR70R1001

Competitor's

Elix

arium advance EDI

PURELAB Pulse

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Genie R

Catalog No.	Description
RG0R01000	Genie R 12 Water System
RG0R02000	Genie R 24 Water System
RG0R03000	Genie R 32 Water System

Features

- Produce RO water from tap water directly.
- AC Pack、 P Pack
- R 12: one RO Pack——RR70R1001
  R 24: two RO Pack——RR70R1001
  R 32: two RO Pack——RR70R1501

Competitor's

RiOs Essential

arium advance RO

Pacific RO

Cascada 3

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Genie PURIST

Features

- Produce ultrapure water from pure water
- Integrated feed water conductivity sensor
- Detection of universal type water storage device level
- On-line TOC monitor based on complete oxidation methods (optional)
- Dual-wavelength UV lamp
- H Pack、U Pack
- Flowrate: Up to 2.0 L/min
- At least one UP water dispenser

Catalog No.	Description
RG0S00000	Genie PURIST Water System
RG0S000T0	Genie PURIST Water System with TOC

Competitor's

Cascada I

PURELAB Classic

IQ 7000

GenPure

arium pro

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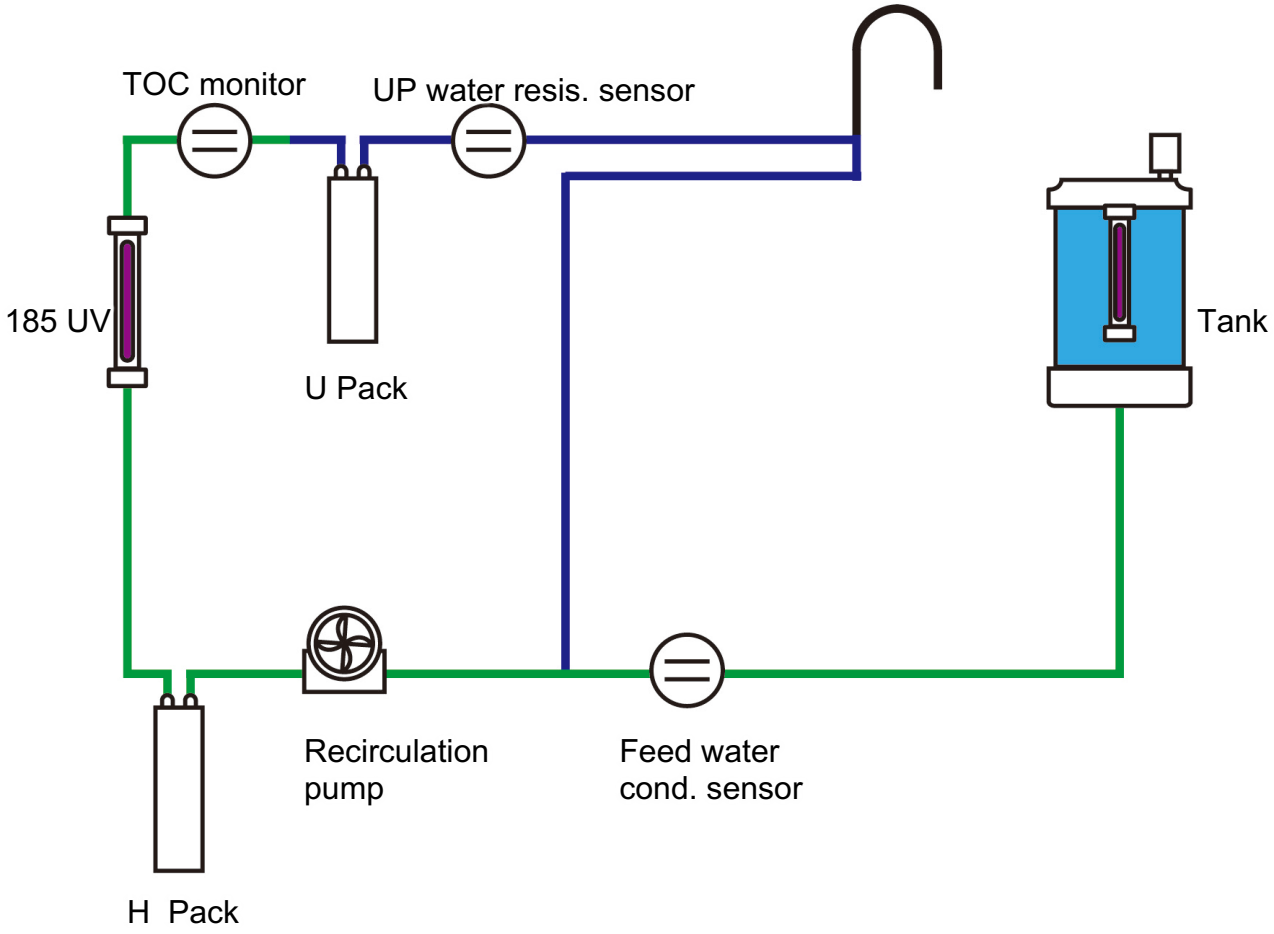
Genie PURIST Water Flow Diagram



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Components

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Parts Details

A. Main System

B. Dispenser

C. Control Console

D. Cartridges

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The Main System

- On-board TOC
- RephiBlue Mobile App
- Validation Support

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Main System

Order Information

Catalog No.	Description
RG0A04000	Genie A Water System
RG0E00500	Genie E 5 Water System
RG0E01000	Genie E 10 Water System
RG0E01500	Genie E 15 Water System
RG0G005T0	Genie G 5 Water System with TOC
RG0G010T0	Genie G 10 Water System with TOC
RG0G015T0	Genie G 15 Water System with TOC
RG0S00000	PURIST Water System
RG0S000T0	PURIST Water System with TOC

Catalog No.	Description
RG0U01000	Genie U 12 Water System
RG0U010T0	Genie U 12 Water System with TOC
RG0U02000	Genie U 24 Water System
RG0U020T0	Genie U 24 Water System with TOC
RG0U03000	Genie U 32 Water System
RG0U030T0	Genie U 32 Water System with TOC
RG0R01000	Genie R 12 Water System
RG0R02000	Genie R 24 Water System
RG0R03000	Genie R 32 Water System

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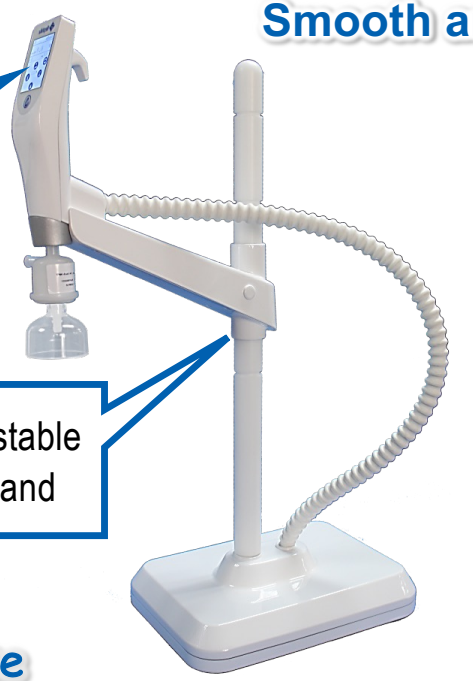
Dispenser

Tech-savvy and ergonomically design

Smooth and easy to operate



Water quality, dispense volume and rate all displayed on the dispenser handle

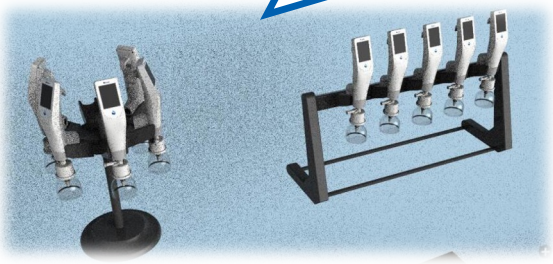
Height adjustable with one hand

Great user experience

Hooked design enables one-hand operation

small and slick

Dispenser handle can be placed anywhere as it fits to your lab: on the dispenser stand, on the system, **or other places**



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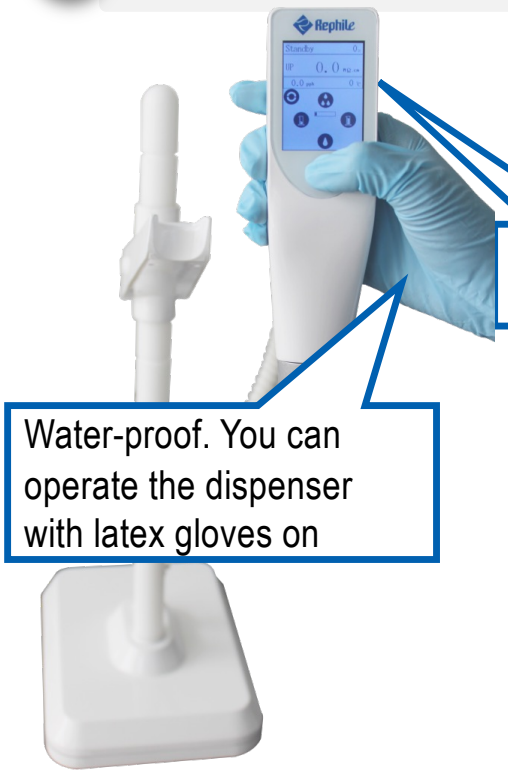
Dispenser



All-in-one touch screen

Water-proof. You can operate the dispenser with latex gloves on

In your palm. Use your thumb to operate the dispenser easily

One finger touch to set up dispense volume (0.1 L – 99.9 L) and rate (Drops to 2 L/min), or to dispense water

All at your fingertips!

Wireless connection enables N+1 dispensers connected to a single water system at will.

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Control Console

The control and command center

Operates and monitors the water system and other components

It can be placed…

- Beside the system
- Wall-mounted
- On the shelf
- Inside a drawer
- with your dispenser and peripheral devices

Freely in the lab

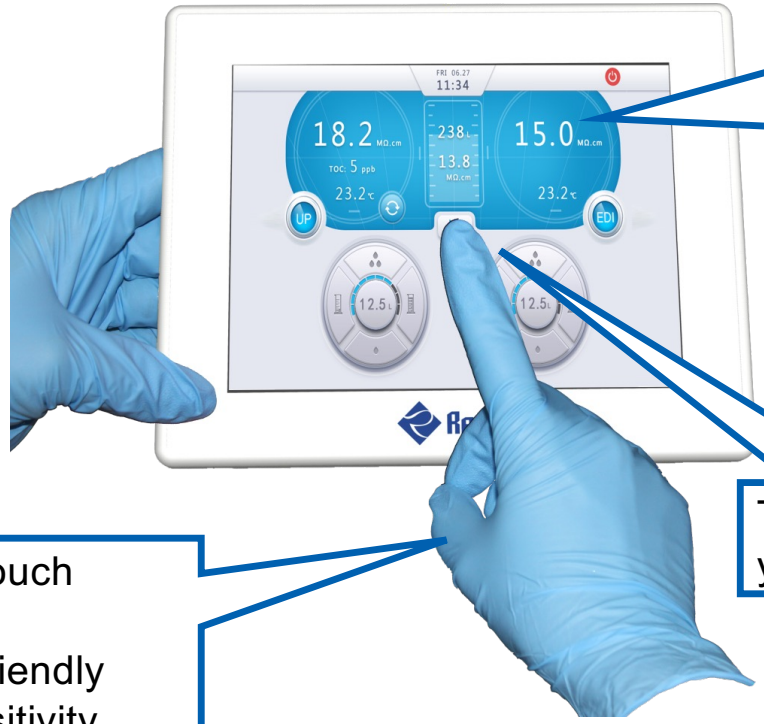
Control from the distance

8-inch touch screen

Wireless connections

Control Console

Read in a comfort angle in your hands



Water quality,
Operation parameters,
The status of the system, dispensers, components, and peripheral devices

Total control at your fingertips

Water-proof touch screen.
Latex-glove-friendly with high sensitivity.

Revolution in Filtration

Cartridges

Core components

Optimized purification technologies

Optimized flow path design → Improved efficiency of ion exchange

Optimized flow path design → Stability of water quality

Flow path design ensures the quality of water production meets specific applications

Low running cost

Revolution in Filtration

Cartridges

A full range of Cartridges

RephiLe's **LeFil™** and **OrgneFil™** proprietary materials for various applications

General type	Conventional experiments
Low TOC type	Experiments highly sensitive to TOC level
Low Boron type	Element analysis
ICP type	ICP-MS, PPT grade analysis
Low Mg type	NGS high throughput sequencing
DI Feed type	Feed water with high particle content

Tailored to Your Applications

Revolution in Filtration

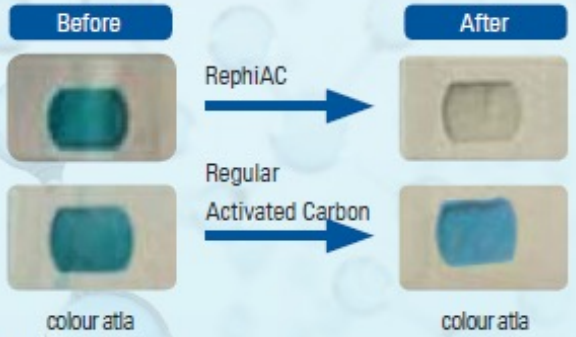
Cartridges

Powerful Purification Media

Enhanced RephiAC

- Maximize the removal of chlorine
- Ensure long and smooth operations

A contrast experiment of chlorine removal effect



Test Conditions:

1. Original chlorine concentration: 2.6 ppm
2. Flow rate: 5 L/min

Compared with a standard colorimetric test card: Residual chlorine level was below 0.05 ppm after RephiAC treatment. There are still more than 30% residual chlorine after a regular activated carbon treatment.

RephiAC Activated Carbon

Highlights of Genie water systems

- The main system, monitor and dispensers can be placed freely as desired. **Distance** from the system is no longer a limiting factor to set up a dispenser.
- Touch screens are highly responsive and durable. Users can operate the system with gloves on or even with wet hands.
- Thanks to RFID, working status of consumables and main parts are fully monitored right at the installation.

Flexible & Durable & Overall Control

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Main Competition

Revolution in Filtration

•Millipore IQ 7000

	Genie PURIST	IQ 7000
Feed / Product water	Pure water → Ultrapure water	Pure water → Ultrapure water
Signal transmission	Wireless / Wire	Wire
Touch screen	Control console + Dispensers	Dispensers
Screen size	8”	5”
Dispenser	> 4	≤ 4
RFID chip	All consumables and some spare parts	Cartridges
Way of dispensing	Touch screen	Buttons
U Pack	More varieties than Millipore	

- **ELGA PURELAB Chorus**

	Genie	PURELAB Chorus
Signal transmission	Wireless / Wire	Wire
Type II water	EDI	DI
Screen size	8	2.4
Dispenser	1,2,3,4,5 …	≤ 4
Ways of operating	Touch screen	Buttons

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- **PALL Cascada**

	Genie	Cascada
Signal transmission	Wireless / Wire	Wire
Type II water	EDI	DI
Screen size	8”	7”
Dispenser	1,2,3,4,5,6,7, …	≤ 6
Way of dispensing	Touch	Buttons

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Rephile

Rephilution Matters

Revolution in Filtration