

# Water Purifier (Ion-exchange+Distillation)

## WGH201

Distilled water production 1.5L/h

Purified water Distilled high-purity water / Deionized water

Water quality ASTM D1193 Type 1 Distilled water JIS K0557 A4 Deionized water

**Continuous production of high purity deionized and distilled water (Resistivity 18Ω or more, Level JIS A4/ ASTM D1193 Type1) kept in a 30L storage tank.**

- High purity water integrated system with Sterilizing UV lamp, Pretreatment cartridge, Ion exchange resin cartridge, High purity cartridge.
- Membrane filter and distilled water circulation system.
- Easy-to-use tray for product water intake (with drainage).
- Multi-functional control and display panel.
- Feed and drain can be connected on both sides and installed anywhere.
- Easy maintenance as most consumables can be easily attached and detached.



### Specifications

Product code		253150
Model		<b>WGH201</b>
Water quality*1	Distilled high-purity water	Normal water sampling JIS K0557 A4 Standards compliance Water sampling after manual refreshing ASTM D1193 Type 1
	Deionized water	JIS K0557 A4 Standards compliance
Water collection method	Distilled high-purity water	Pre-treatment Cartridge→Ion Exchange→Distillation→Tank→Ion Exchange→High-Purity Cartridge→Filtration Automatic circulation (manual circulation is also possible)
	Deionized water	Pre-treatment Cartridge→Ion Exchange→Filtration
Water quality performance*2 (specific resistance)		Distilled high-purity water : 18MΩ·cm or more Deionized water : Approx. 18MΩ·cm Distilled water : Approx. 1.0 MΩ·cm*1
Production of distilled water*2		Approx. 1.5L/hr.
Collection of distilled water*2*3		Approx. 0.9L/min.
Collection of deionized water*2*3		Approx. 1.0L/min.
Setting range of collection capacity*2*4		0.1 - 26L Quantitative water collection / Continuous water collection
Drainage connection		Left-right selective connection / Hose connection
Pre-treatment cartridge		0.1 μm hollow fiber membrane + activated charcoal (PWF-1) (to be replaced at a flow rate of approx. 5,000 L)
Ion-exchange resin cartridge		CPC-S (4L)×1pc. (Exchange by approx. 700L of water flow)
Distilled High Purity Water Cartridge		One each of CPC-S (4L) and CPC-H (3L) (Both to be exchanged every year.)
Final filtration		0.1 μm membrane filter (Mounted at the sampling outlet) (to be replaced at a flow rate of approx. 500 L)
Distilled water storage tank capacity		30L polyethylene tank (Full water setting 26L/10L selectable)
Distilled water storage tank sterilization light		UV sterilization lamp as standard equipment
Product water intake tray		Drawer type, load capacity of 10kg
Multi-purpose distilled water sampling port		Hose with coupler included (Used for tank water collection and drainage)
TOC reducing		UV sterilizing lamp for distilled water
Product water intake tray		Slide out type, Load capacity 10 kg, for 5L beaker
External dimension*5/ Weight		W600mm×D660mm×H775mm / Approx. 75kg
Power source (50/60Hz)		AC115/220V Single phase with step-down transformer
Accessories		Water supply hose×1pc, Hose clamp×1pc, Ion-exchange resin Cartridge (SPC-S)×2pcs, High Purity Cartridge (CPC-H)×1pc, Pretreatment Cartridge×1pc, Membrane Filters×2pcs, Seal tape×1pc, Drain hose 2m×1pc, In-out hose×1pc, Water supply hose assembly×1pc, Distilled water drain hose assembly×1pc

The length of the power cord is about 2m outside the unit.

\*1 The value of distilled water quality is for 200×10-4S/m of raw water, and is the value right after production.

\*2 The performance data is based on 100 V AC, room temperature 23°C±5°C, humidity 65%RH±20%.

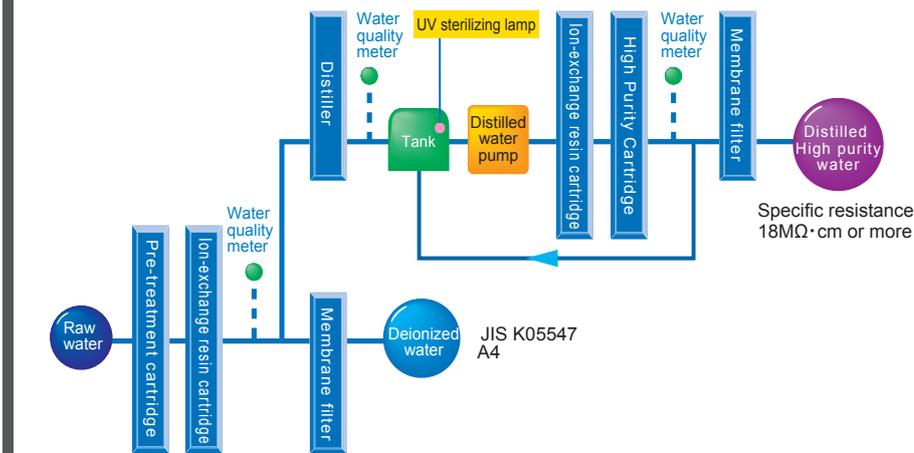
\*3 The guaranteed performance range is 2.0 to 5.0×100kPa (2 to 5kgf/cm<sup>2</sup>) of raw water pressure and water temp. of 20°C.

The amount of water collected varies depending on the temperature of the water..

\*4 The maximum continuous water sampling capacity is 26 liters.

\*5 Protrusions not included.

## Treatment Process



## Structure

### Easy maintenance



Most consumable parts, including the Ion exchange resin cartridge, High purity cartridge, Pretreatment cartridge can be easily attached and detached, facilitating easy maintenance work.

- ① Boiler
- ② Ion-exchange resin cartridge CPC-S
- ③ High purity cartridge CPC-H
- ④ Ion-exchange resin cartridge SPC-S

### Water quality analysis

Item	Standard		Collection	
	JIS K0557 A4	ASTM D1193 type 1	Deionized water	Distilled water
Electric conductivity(mS/m) (at water temp. 25°C)	≦ 0.1	≦ 0.00555	0.0056	<0.00555
Organic carbon (TOC) (µgC/L)	≦ 0.05	≦ 0.05	0.011	0.02
Zinc (µgZn/L)	≦ 0.1	--	<0.1	<0.1
Silica (µgSiO <sub>2</sub> /L)	≦ 2.5	--	<0.1	<0.1
Total silica (µgSiO <sub>2</sub> /L)	--	≦ 3	--	0.21
Chloride Ion (µgCl <sup>-</sup> /L)	≦ 1	≦ 1	<0.5	<0.1
Sulfuric acid Ion (µgSO <sub>4</sub> <sup>2-</sup> /L)	≦ 1	--	<0.5	<0.1
Natrium (µgNa/L)	--	≦ 1	--	<0.1
Total Level			JIS A4	ASTM TYPE 1 and JIS A4

### Optional items

No.	Description	Model	Product code
①	Stand	AS250	253174
②	Product water hose, hose length 2m	OWG24	253204
③	Water Supply Unit	OWH10	253686
④	Raw water pressure reducing valve	OWG48	253772
⑤	*Connection Unit G (Connection Set for WL100)	--	253668
⑥	*Drain trap	OWI11	253221
⑦	*Water sampling stand	OWL40	253266
⑧	*External alarm output	OWG60	252780

\* Please specify when ordering main unit.



Water Supply Unit (OWH10)



Ion exchange resin cartridge (CPC-S)



High Purity Cartridge (CPC-H)



- ① Stand AS250
- ⑥ Drain trap OWI11

### Consumable parts

No.	Description	Model	Product code
①	Membrane filter (2 pcs. / set)	MFRL727	9020010004
②	Ion-exchange resin cartridge	CPC-S	253080
③	High purity cartridge	CPC-H	CPCNS30011
④	Pre-treatment cartridge	PWF-1	253099
⑤	Air vent filter for tank	AVF-1(4210)	9020020001
⑥	UV sterilizing lamp	OWG28	253773



Membrane filter (MFRL727)



Pre-treatment cartridge (PWF-1)



Air vent filter for tank (AVF-1)

### Distilled high-purity water reference analysis data

Item	Measured value (PPT)
Na	2.6
Mg	1.8
Al	1.8
Ca	6.9
Cr	1.1
Fe	4.8
Ni	0.3
Cu	1.8
Zn	1.3

\* Sampling in a clean room