

Water Purifiers | Ultimate Model

WGH202

Distillation capacity 1.5L/h

Purified water collection Distilled water/ion-exchange water

Water quality level Distilled water: ASTM D1193 Type1; ion-exchange water: JIS K0557 A4

Simultaneously collects distilled water and ultrapure water with a resistivity of over 18MΩ·cm. Meets ASTM D1193 Type 1 and JIS K0557 A4 water quality specifications.



Features

- Collect ultrapure water (resistivity over 18MΩ·cm).
- The water tank is equipped with a UV sterilization lamp.
- Automatically circulates internally periodically to prevent water degradation of the ultrapure water collection path and water tank.
- Equipped with a manual internal circulation function.
- Complies with the water quality standards for elemental analysis specified by the NADCAP certification requirements for aircraft component manufacturers, ASTM D1193 Type 1.
- Meets a wide range of needs from general analysis to various trace analyses. ※ ASTM D1193 Type 1 is the highest grade recognized by ASTM International for chemical analysis water.

Specifications

Model		WGH202
Function	Water quality	Ion exchange water A4 Distilled water A4
	Distilled water production	~1.5L/h
	Distilled water tank capacity	30L
	Dispenser	○
Method / Performance ¹⁾	7-inch LCD screen	○
	Water sampling method	Ion exchange water Ion exchange → Filtration Distilled water Ion exchange → Distillation → Ion exchange → Filtration
Configuration	Pure water sampling	Ion exchange water / distilled water
	Distilled water production	~1.5L/h
	Distilled water delivery rate ²⁾	Drip~approx. 1.5L/min (with variable flow rate function) (distilled ultrapure water)
	Ion exchange water delivery rate ²⁾	~1.0L/min (without variable flow rate function)
	Setting range of production ³⁾	0.01L~tank storage volume / Continuous water sampling
	Condenser	Hard glass
	Heater	Ceramic heater 1.2kW
	Pretreatment cartridge	0.1 μm hollow fiber membrane with activated carbon (PWF-1)
	Ion exchange resin cartridge	CPC-S 4L type, 1 pc. (Activated carbon cartridge)
	High purity cartridge	CPC-H2 4.4 L type, 1 pc. (Activated carbon cartridge)
Standards	Final filtration of distilled & ionized water	0.1μm × 2 (membrane filter)
	Leak detection	Forced shutoff of water solenoid valve by leak detection sensor in case of water leakage
	Distilled water storage tank	Polyethylene tank, 30L
	Distilled water UV sterilization	LED-UV for tank
	Water sampling tray	Push-open type, Load capacity: 10kg, for 5L hand-held beaker
	Multi-purpose distilled water sampling port	For connection of Φ8 rigid tube (right side of main unit)
	Water level detection	Float switch, 5-step detection
	Raw water pressure range	0.05~0.5MPa
	Amount of raw water required	~2.0 L/min
	Ambient temperature range	5~35°C
Display / Setting	Power supply (50/60Hz) ⁵⁾	AC110/115/120/220/230/240V, with step-down transformer
	External dimensions ⁴⁾	W540×D570×H775 mm
Other Displays	Weight	Approx. 68kg
	Water level display	Digital (7-inch LCD panel)
	Water quality display	Digital (conductivity / resistivity switching)
	Accessories	Notification (including advance) : Various consumables / Scheduled maintenance Warning : Water cut off / No record of trend data/Power failure / Low distilled water quality Abnormality : Controller / Water leak / Heater overheat, Disconnection / Tank water level gauge / Boiler water level / Boiler water level gauge / Boiler drainage route / Cooling water, Feed water valve / Water quality meter / Water sampling pump / Low flow (ion exchange water) / Water sampling route / UV lamp abnormality / Internal communication Water supply hose (2m) / Water supply hose filter / Connecting hose assembly / Pretreatment cartridge / Ion exchange resin cartridge / High purity cartridge / Air vent filter / Membrane filter (2 pcs) / Water collection port cover (2 pcs) / Magnetic hook (2 pcs) / Water collection procedure seal / Multi-purpose distilled water collection port connection tube (2m) / Instruction manual

*1 Performance values are for WGH 202, WG253, WGS201, and WG206 : Power supply AC 100V, room temperature 23°C ±5°C, humidity 65% RH±20%. WG1013 : Power supply AC 200V, room temperature 23°C ±5°C, humidity 65% RH ±20%. The ambient temperature range of this product is 5 to 35°C. The raw water temperature range is 5 to 30°C. If the raw water temperature is high, the wastewater temperature may be higher. If the raw water temperature is high, the drainage temperature may be high. If the temperature exceeds 60°C, a drainage trap is required. *2 The guaranteed performance range is 0.2 to 0.5MPa of raw water pressure. The amount of water sampled varies depending on changes in the raw water pressure. *3 The accuracy of the quantitative water sampling is about 10%. *4 Protrusions are not included. *5 Voltage modifications other than the listed specifications are also available. Please contact us for details.

1 Sterilizers

2 Granulation and Spray Dryers

3 Furnaces

4 Ovens

5 Incubators

6 Plasma Equipment

7 Water Purifiers

8 Baths

9 Water Circulators

10 Rotary Evaporators

11 Stirrers & Shakers

12 Options

Made in Japan

The Ultimate Model for Distilled Ultrapure Water by Yamato Scientific

Generally, water with a resistivity of 18MΩ·cm or higher is referred to as “Ultrapure water”

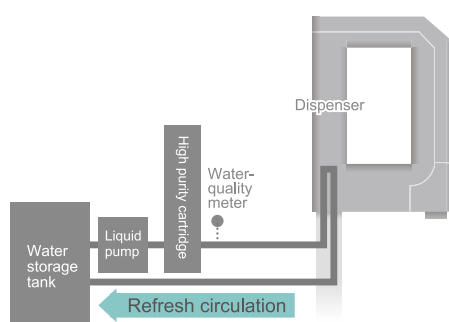
The WGH202 uses high-purity cartridges (CPC-S, CPC-H2) to collect ultrapure water with a resistivity of 18MΩ·cm or higher.

The distilled ultrapure water (after refresh circulation) collected by this model complies with ASTM D1193 Type 1, which is specified as a water quality standard for atomic absorption analysis inspections under the NADCAP international certification system, which aircraft component manufacturers are required to undergo.

Always Enjoy High-Purity Water with Refresh Circulation

Our refresh circulation function keeps the water quality in both the storage tank and the dispenser circulation path at optimal levels.

Periodic automatic circulation, combined with manual circulation before dispensing, ensures that you always have access to reliably high-purity water.



Water Purifier (Auto Still) WGH202



【Main specifications】

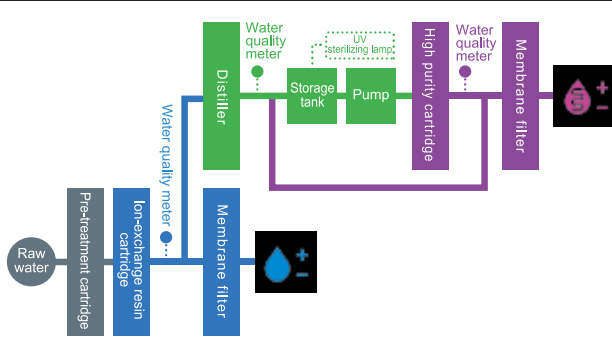
Dimensions : W540×D570×H775mm (not including protruding parts)

Weight : Approx. 68kg

Water quality level : A4 (Ion-exchanged water / Distilled ultra pure water)

Distilled water production capacity : 1.5L/h, Tank capacity 30L

Block Diagram



Distilled ultrapure water complies with to ASTM D1193 Type 1 and the highest level A4 water quality grade (JIS K0557 A4 standard).

The ASTM D1193 Type 1 water quality standard specifies criteria for electrical conductivity, total organic carbon (TOC), total silica, chloride ions, and sodium.

WGH202 complies with this standard because it produces Type 1–grade water by distillation, as required by the standard (distillation or an equivalent purification method).

On the other hand, WG253 in the same series does not meet this standard because it is not equipped with the additional post-distillation high-purity purification stage required for this grade.

Note that both distilled water and ion-exchanged water are classified as A4 water quality, the highest level specified by JIS. The electrical conductivity of distilled water may appear relatively high; however, this is mainly due to carbon dioxide absorption during the distillation process and is not caused by impurities such as metal ions.

Water quality analysis results (WGH202 and WG253)

Item	Standard		Measured value					
	JIS K0557 Standard A4	ASTM D1193Type1	Raw water	WGH202 Ion-exchanged water	WGH202 Distilled ultrapure water	Raw water	WG253 Ion-exchanged water	WG253 Distilled water
Electrical conductivity (mS/m)	≦0.1	≦0.00555	18.9	<0.0055	<0.0055	15.1	0.0055	0.079
Total organic carbon (TOC) (μg/L)	≦50	≦50	<300	8.2	6.8	300	11.4	8.4
Zinc (μg/L)	≦0.1	-	<20	<0.1	<0.1	<20	<0.1	<0.1
Silica (μg/L)	≦2.5	-	34000	<0.1	<0.1	22000	<0.1	1.8
Total silica (μg/L)	-	≦3	31900	0.6	2.5	-	-	-
Chloride ion (μg/L)	≦1	≦1	7000	<0.1	<0.1	8000	<0.1	<0.1
Sulfate ion (μg/L)	≦1	-	14700	<0.1	<0.1	16700	<0.1	<0.1
Sodium (μg/L)	-	≦1	142000	<0.1	<0.1	-	-	-
Total water quality level				JIS A4	ASTM Type1 JIS A4			JIS A4

- Sterilizers 1
- Granulation and Spray Dryers 2
- Furnaces 3
- Ovens 4
- Incubators 5
- Plasma Equipment 6
- Water Purifiers 7
- Baths 8
- Water Circulators 9
- Rotary Evaporators 10
- Stirrers & Shakers 11
- Options 12