

Specifications

ES-700

ES-1400

Product Name	Hydrogen Peroxide Gas Sterilizer ES-700	Hydrogen Peroxide Gas Sterilizer ES-1400
Chamber Capacity	76 L	142 L
Chamber Shape	Rectangular	
Door	Automatic Swing-down Door	Automatic Swing-down Door Double or Single Door
Hydrogen Peroxide Supply	Sterilization Cartridge	
Sterilization Temperature	50 °C	55 °C
Process Time (cycle)	Normal Cycle	Approx. 55 min
	Short Cycle	Approx. 34 min
Process Time (cycle)	Normal Cycle	Approx. 50 min
	Short Cycle	Approx. 28 min
Printing / Recording Function	Line Thermal Printer SD card	
Display	Full Colour LCD Touch Screen	
Identification	RF-ID: ISO 15693 (13.56 MHz)	
Power Requirement	3-phase 208 V/380 V/400 V/415 V 50/60 Hz	
Power Consumption (Max)	2 kW	3 kW
Required Space (mm)*	Left: +50, Right: + 150, Back: +50, Top: +500	
Operational Environment Temperature/Humidity	10 °C to 40 °C / 50 °F to 104 °F 30-85% RH	
External Dimensions (mm)	1630 (H) x 750 (D) x 640 (W)	1710(H) x 925(D) x 750(W)
Weight	Approx. 310 kg	Approx. 410 kg
Medical Device Category**	Controlled Medical Device (CLASSII)	
Product Origin	Japan	

* Required space may vary depending on how the device is installed.
Please consult your local distributor for further details.

**Japan Pharmaceutical Affairs Act

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Canon

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Low-temperature sterilization
Hydrogen Peroxide Gas Sterilizer

ES-700

ES-1400



CANON MEDTECH SUPPLY CORPORATION

Your alternatives for low-temperature sterilization

CANON MEDTECH SUPPLY offers new choices in low-temperature sterilization with hydrogen peroxide, for heat-/moisture- sensitive instruments that will enhance efficiency and productivity.

Thanks to our trusted, original vaporized hydrogen peroxide sterilization technologies, we are ready to support effective infection control at medical facilities where professionals take care of reprocessible surgical equipment.

Hydrogen peroxide is an agent that can safely be decomposed into water and oxygen. This means that dedicated ventilation equipment or a long waiting time after the cycle are not required.



PRODUCTIVITY

- PLASMA-FREE sterilization is gentler on medical devices.
- PROPERTY CHECK performs a cycle simulation to prevent time being wasted
- Effective use of chamber capacity with PLASMA-FREE
- Emailing function to minimise downtime
- Pre-cycle conditioning is designed to warm up the load and remove moisture to prevent from cycle cancellation



USABILITY

- Improved visibility with the updated user interface (LCD touch screen)
- Hands-free door operation via the foot sensor
- "VIEW PORT" enables visual checks of the loaded chamber
- Notification of cycle completion by email
- Cycle records can be saved in an SD card and printed by the built-in thermal printer
- PLASMA-FREE technology makes it easy to keep the inside of the chamber clean



SAFETY

- Residue in the chamber minimised by ALTERNATING VENTILATION[ALV]
- Sterilization cartridge with RF-ID, perfectly sealed with dual-wall construction
- Automatic disposal of hydrogen peroxide into water and oxygen



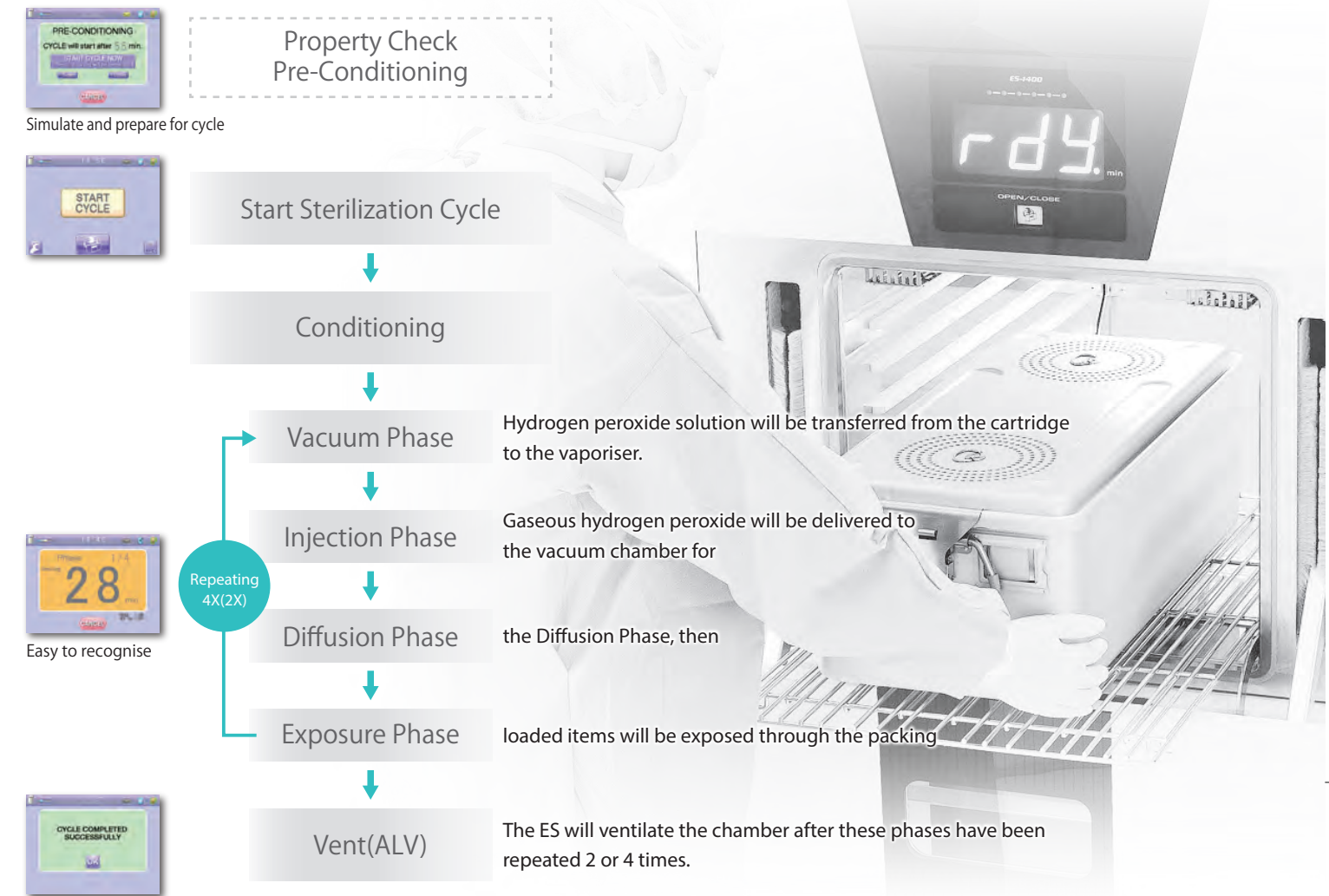
RUNNING COST

- Can use commonly available accessories for hydrogen peroxide sterilization such as TYVEK® pouch reels, CI, BI, sterilizing containers, and wire baskets
- ECO SWITCH to reduce power consumption
- Dry pump system requires less maintenance

ES-700/ES-1400 are designed to comply with the requirements of Medical Devices Directive 93/42/EEC (including amendments by 2007/47/EC).

Process

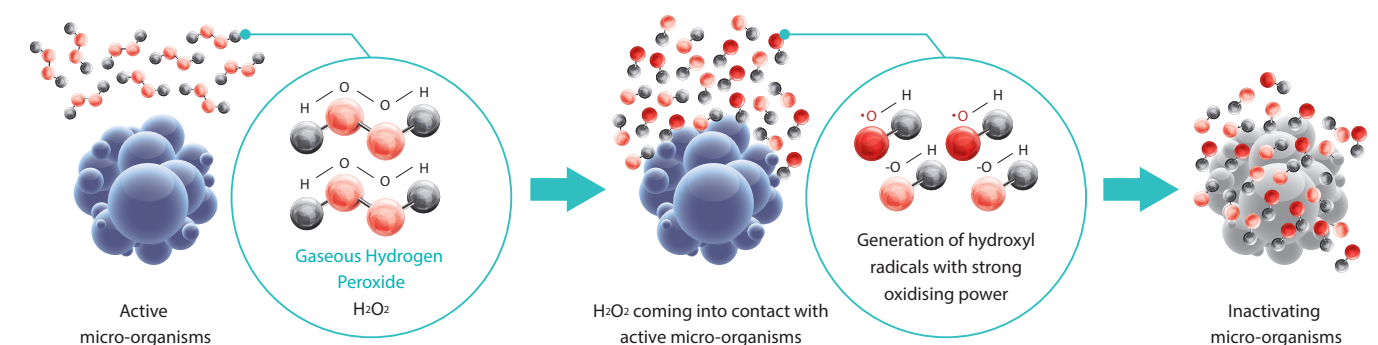
CYCLE process



Principle

Vaporized Hydrogen Peroxide Sterilization

OH[Hydroxyl] radicals will be generated around micro-organisms when gaseous hydrogen peroxide comes into contact with the load items. The OH radicals will effectively inactivate those micro-organisms. The OH radicals will effectively inactivate those micro-organisms.



Cycle selection

Selecting the right CYCLE

Operators can simply choose a cycle mode on the touch screen display, depending on the shape, material or nature of the load item. The standard and soft cycles both have 2 levels of ALV (Alternating Ventilation) as options to choose according to your preference. This process can be skipped by presetting a program.

Single and dual channel rigid and semi-rigid endoscopes

Single and dual channel flexible endoscopes

Instruments and medical devices with no lumens or cavities

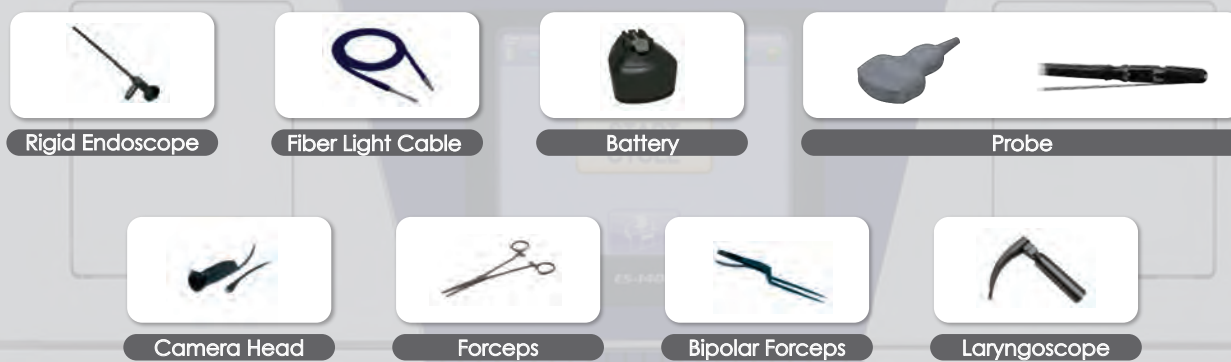
NEW for ES-700

Ask official ES distributors about selecting the right cycle for each type of medical instruments.

Short Cycle

The 28/34 min. short cycle is for devices without lumen structure, such as cables, batteries, probes and cameras. The ES-700 has been updated and equipped with a Short Cycle like the ES-1400, the upper model. The shorter duration time without drying will help to improve ROI by boosting turnaround times of reprocessible medical equipment and devices thanks to the shorter processing time, and by expanding usage beyond the scope of a conventional low-temperature sterilizer.

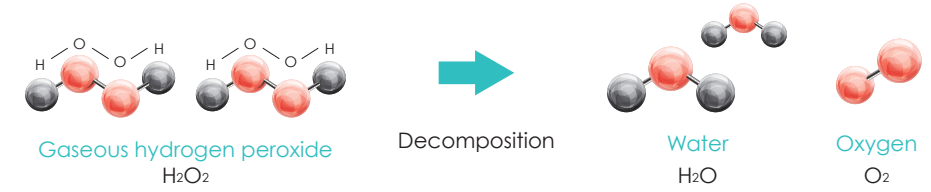
Typical medical devices suitable for the short cycle



Safety

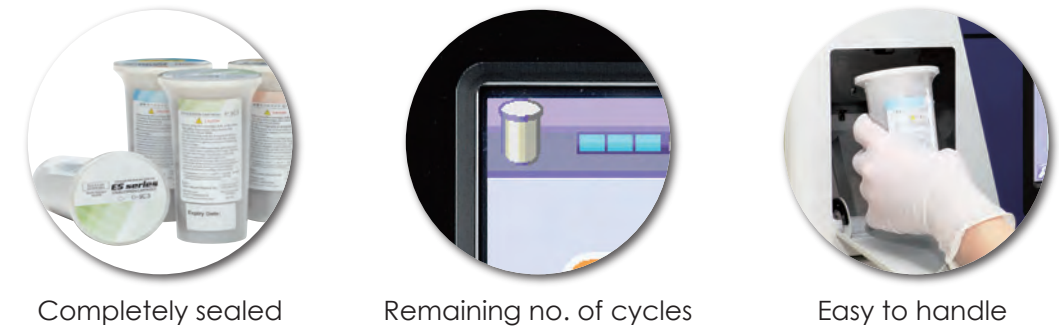
Hydrogen peroxide will be decomposed into water and oxygen

Gaseous hydrogen peroxide is effective for the safe and environmentally-friendly inactivation of micro-organisms. Unlike other low temperature sterilization technologies, loads do not have to be kept in for a long time to remove toxic agents.



Safe, dual-wall construction with RF-ID

The all-in-one, easy to handle sterilization cartridge has a dual-wall construction that holds up well against shocks. It indicates the number of cycles remaining and notifies when it has reached its expiry date.

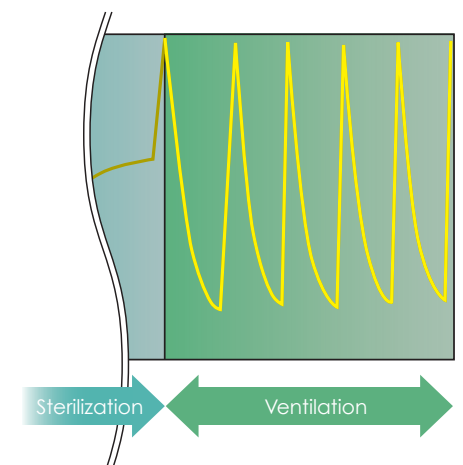


Alternating Ventilation System

As hydrogen peroxide will be vaporized to the molecular level, much smaller than particles, you do not have to worry about residue inside the chamber.

In addition, as the final process of the cycle, the ES performs ALTERNATING VENTILATION(ALV), where depressurisation and pressurisation are repeated.

This process minimises the amount of residual hydrogen peroxide remaining in the wrapped items and containers.



ALV Mode (STD/LONG)

Ventilation(depressurisation and pressurisation) will be performed 5 times in Standard Mode to ensure safety. ALV Mode can be extended to twice the length of Standard Mode if the loads might have a significant level of absorbency.

ES-700 Ver. Up

In addition to the STANDARD and SOFT cycles, the ES-700 is now equipped with a SHORT cycle like the ES-1400, the upper model. With these and other functions, the ES-700 is the basic option to improve low-temperature sterilization with a safe and efficient workflow in the Central Sterile Supply Department.

Enhanced functionality and an improved user interface allow you to achieve even more efficient sterilization of reprocessable equipment and medical devices.

The chamber depth has also been extended to enable longer devices to be loaded, such as newly-introduced integrated equipment.

76 Liters



ES-1400 Ver. Up

Single-door/ Double-door model

The 142-litre square chamber maximizes the load capacity; it can hold a full-size container and large trays. It comes with four sliding racks which enable the operator to optimize the load volume per cycle.

The ES-1400 has two different configurations of chamber door. The double-door model enables the Central Sterile Supply Department to use a pass-through system. It also has an optional attachment for an in-wall recessed mounting system between contaminated/decontaminated areas.

ES-1400 has also been updated with an improved user interface for better visibility.

142 Liters



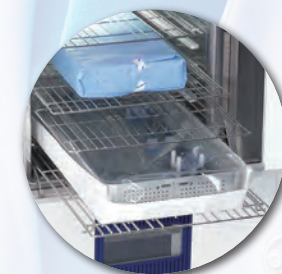
Single-rack Configuration



Triple-rack Configuration



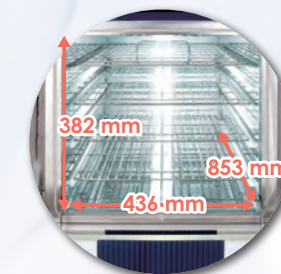
Loads are visible through the VIEW PORT



Quadruple-rack Configuration



Double-door model for pass-through system



Loads are visible through the VIEW PORT

Newly-added SHORT cycle boosts the flexibility of the ES-700 !

CYCLE	Mode	Concentrated	CYCLE TIME	Typical Instruments
NORMAL	STD	Yes	Approx. 55 min.	Flexible Endoscope
	SOFT	No		Rigid Endoscope
SHORT	SOFT	No	Approx. 34 min.	Non-Lumen

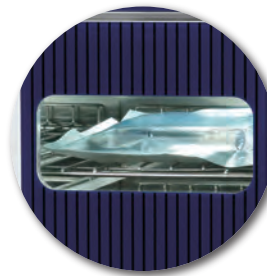
CYCLE	Mode	Concentrated	CYCLE TIME	Typical Instruments
NORMAL	STD	Yes	Approx. 50 min.	Flexible Endoscope
	SOFT	No		Rigid Endoscope
SHORT	SOFT	No	Approx. 28 min.	Non-Lumen

Usability/Ecology

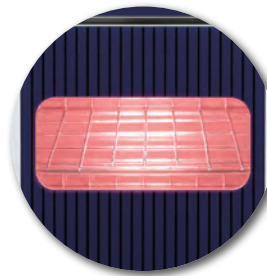
VIEW PORT and LED lighting make the interior visible

Thanks to PLASMA-FREE technology, the ES series features a VIEW PORT for observing loads inside the chamber while the chamber door is closed.

The interior of the sterilization chamber is lit with a white LED lamp, which allows operators to find out at a glance how the items are laid out and spot any items that may have been missed.



VIEW PORT to observe the interior during the cycle



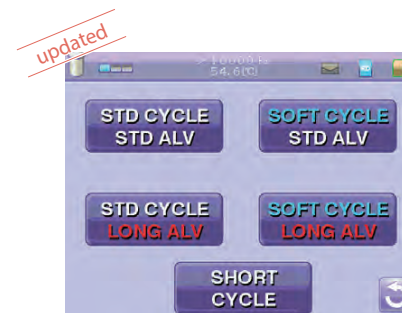
Lighting turns to red to alert the operator of any errors

Full Colour Touch Panel Screen

Simple touch panel operations are available at a touch of your finger.

The colour LCD screen uses large text for good visibility.

A red screen and alarm will alert operators if any error occurs.



Displays Remaining Processing Time

During the cycle, the LCD screen shows the remaining time in a large format, for better usability and efficiency.

* Sterilization may take longer depending on the type of material or the dryness of the load items to be sterilized.

* The remaining processing time on the screen is based on the cycle completion time, which is calculated through analysis of the initial depressurisation.



ECO SWITCH to save power



Reduces power consumption during stand-by

Hands-free door opening/closing



Opens/closes the chamber door without using the hands

Reporting, Validating

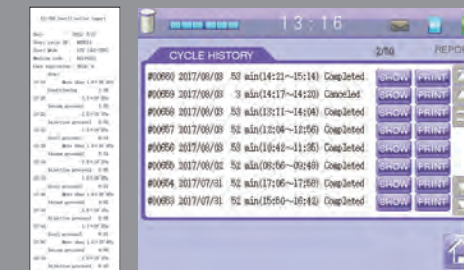
Process printer and SD card included

SD card to store and output the history of the cycles performed. Alternatively, these data can be also printed out for reporting or filing.

*Only a dedicated SD card for the ES series can be used.



Thermal Printer



Cycle Report/History

Accessible with any device, from anywhere.

The email function minimises the downtime of the ES series by automatically sending an error message to in-house and external engineers. This notification feature increases productivity.



Monitoring with validated services/indicators/accessories



Validated chemical indicators show exposure to vaporized hydrogen peroxide

Different types of chemical indicators are available to suit the particular requirements of the validation process.



Monitoring by validated biological indicators and a rapid-readout auto-reader

Biological indicators are test systems containing viable microorganisms providing a defined resistance to a specific sterilization process. The latest incubator for rapid-readout is also available from leading suppliers to significantly speed up the process*.

*Ask an official ES distributor about availability in your country.



Service/Installation

We are striving to provide optimum support for customers with our local partners, where experienced technicians are fully trained and certified for the ES series according to our standards.

Sterilization Cartridge

e-SC102 e-SC3 e-SC305

The cartridge has dual-wall construction along with absorbent material to assure safety. The built-in RF-ID controls the expiry date and remaining hydrogen peroxide solution.



No. of cycles	e-SC102*	e-SC3*	e-SC305
ES-700	2	3	5
ES-1400	1	NA	3

4 cartridges/ CTN
*AIR SHIPPABLE

Thermal Printer Paper

e-RP



Coreless type
58 mm×25 m
(4 pcs/ CTN)

Tyvek® Pouch Reels

e-TRseries

The pouches are made of Dupont™ Tyvek®. Due to the strength of the material, the pouch can hold even heavy instruments.



Model	Size	Roll/CTN
e-TR 70	70 mm×150m	4
e-TR 100	100 mm×150m	4
e-TR 150	150 mm×150m	4
e-TR 200	200 mm×150m	2
e-TR 250	250 mm×100m	2

Model	Size	Roll/CTN
e-TR 300	300 mm×100m	2
e-TR 350	350 mm×100m	2
e-TR 400	400 mm×100m	2
e-TR 450	450 mm×100m	2
e-TR 500	500 mm×100m	2

Chemical Indicators

e-CARDone 250 sheets/box • 10 boxes/CTN



e-CARD one reacts sensitively to exposure to hydrogen peroxide. It will turn from red to yellow without any colour gradations. Environmentally-influenced discolouration is kept to a minimum.

Sterilizing Trays

e-ST2563S



Outer dimensions	250 mm (W) × 625 mm (D) × 70 mm (H)
Inner dimensions	245 mm (W) × 621 mm (D) × 63 mm (H)

*Aluminium alumite, without lid, Teflon parts
Positioning blocks are sold separately

Sterilizing Containers

e-SC2663N



Outer dimensions	255 mm (W) × 630 mm (D) × 105 mm (H)
Inner dimensions	245 mm (W) × 621 mm (D) × 91 mm (H)

*Aluminium alumite, with lid, Teflon parts for placing the cases on top of one another

Sterilizing Baskets

e-SB3020S / e-SB3030S e-SB3030N / e-SB3160NA



Basket with lid



Basket without lid

Model	Description	Outer dimensions	Inner dimensions
e-SB3020S	Stainless steel basket with lid	300 mm (W) × 200 mm (D) × 79 mm (H)	282 mm (W) × 180 mm (D) × 65 mm (H)
e-SB3030S	Stainless steel basket with lid	300 mm (W) × 300 mm (D) × 79 mm (H)	282 mm (W) × 280 mm (D) × 65 mm (H)
e-SB3030N	Stainless steel basket with lid	300 mm (W) × 300 mm (D) × 124 mm (H)	282 mm (W) × 280 mm (D) × 110 mm (H)
e-SB3160NA	Stainless steel basket without lid	314 mm (W) × 600 mm (D) × 109 mm (H)	308 mm (W) × 579 mm (D) × 975 mm (H)

*Ask available accessories to our official distributors in your country.