

Autoclaves SX series [SX-300E] [SX-500E] [SX-700E]



Research Use Only

SPEEDY AUTOCLAVES SX SERIES





TOM



Maximized chamber



Easy operation using the "Top-open lid"



A top-open lid, which can be operated easily with a single hand or foot, is provided with the SX autoclaves. To open the lid, the lid lock is released by stepping on the foot pedal locates at the bottom while pressing the lid down. The lid can be opened with minimal effort owing to mechanical assistance. In addition, the lid can be closed easily just by pressing it down.



capacity at Minimum installation space

Saving the installation space

The main body is very compact owing to the design which provides thorough installation space saving. In addition, installation space at the side of the main body which is required for models employing a slide-open lid, which is not necessary at SX autoclaves top-open lid. Even when several SX autoclaves are installed side-byside, the necessary installation space is minimized.

Cooling fan provided as a standard feature

A rapid air-cooling function (vessel-cooling fan) permitting reduction of chamber cool down time is provided as a standard feature. This is most appropriate for lowering the temperature rapidly on completion of the cycle. The time required for lower the temperature is much reduced by employment of the cooling fan in comparison with natural cooling.

Sterilizing course selection

The optimal sterilizing course can be selected from among five courses, such as the liquid sterilizing course in addition to that for normal sterilization.

Liquid sterilizing course



This is most appropriate course setting for prevention of sudden sample boiling

Easily viewable"work monitor"

The LED display shows working status for easy monitoring. The process being performed is indicated by an LED indication lamp blinking in red.



The illuminated display on the operating panel shown in the picture is different from the actual display at the time of operation.

Timer function

The operation starting time can be preset easily. By presetting the start of operation, otherwise wasted periods at night or early morning, can be used effectively.

Option

External sensor for the articles to be sterilized

Sensor for directly detecting the temperature of articles to be sterilized. More reliable sterilization monitor can be carried out.

Sterilizing course Sterilizing



Course for normal sterilization

Large indication lamp "Operated"

An easily viewable large indication "Operated" is provided at the upper section of the operating panel. Depending on the pressure status (normal pressure/pressure is applied), the displayed color changes.

Auto-variable exhaust speed

A function allowing the exhaust valve to open automatically after completion of sterilization is provided. The exhaust speed can be set to one of six levels (set to variable for liquid sterilization).

Lid interlock

A safety device (lid interlock mechanism) for locking the lid during operation is provided. A high level of safety is assured to prevent unanticipated accidents.

Data output

The temperature data, pressure data, etc. can be exported. The temperature can be recorded when the external recorder is connected.



Ready

(Completion) Prevents culture media from coagulating after sterilization.

Setting to 100 °C is possible.

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Sterilizing

Heating

Extremely convenient for

dissolving culture media

(Ready)

and warming

Variable temperature setting such as to 100 °C as well as to 121 °C has been made possible. The temperature can be set within the range from 45 °C to 135 °C in steps of one degree (heating mode up to 104 °C).



Water level detector

A safety device (water level detector) for preventing dry heating is provided. The device is designed to detect the water level through the micro electrolytes of the sterilizing water.

External sensor and recorder

A temperature sensor and recorder independent of the autoclaves. The chamber temperature can be recorded.



Warming

Completion

Memory recall

(SX-700E)

• 997 mm(SX-500E) • 1036 mm(

817 mm (SX-300E) mm(SX-300E)

2

410 mm (SX-300E/500E) 470 mm (SX-700E)

mm(SX-700E)

827

mm(SX-500E)

-794

614

Sterilizing Heating Warming (Ready) (Completion)

Preferred operating conditions can be recalled up easily.

Pressure fine adjustment function

When the balance between the temperature and pressure deviates during sterilization, fine exhausting is carried out automatically in order to adjust the best chamber condition.



Spec	cific	atio	ns
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specifications						
Model name		SX-300E	SX-500E	SX-700E		
Operating temperature range	Sterilizing		105 to 135°C (0.019 to 0.212MPa)			
	Heating	45 to 104℃ (0 to 0.015MPa)				
	Warming	45 to 95℃				
Maximum operating pressure		0.265	3MPa	0.25MPa		
Temperature	Display		Digital			
Pressure gauge	Display	Analog				
	Display range		0 to 0.4MPa			
Heat source		1.5 kW electric heater	2.0 kW electric heater	3.0kW electric heater		
Safety device		Water level sensor • Current leakage breaker • Lid interlock • Over-heating prevention • Over-pressure prevention Open temperature sensor detection • Safety valve				
Protection type against electrica	al shock	Class I equipment				
Time Display		Digital				
Setting range	Sterilizing					
	Heating	0:01 to 9:59 / 1 to 99 hours / 1 to 999 minutes / 0:01 to 9:59, 10 to 99 hours (Selectable)				
	Warming	1 to 99hours				
Pressure chamber type		PED Category II				
Chamber dimensions		φ325×553mm	φ325×733mm	φ370×774mm		
Effective diameter \times Effective depth		φ315×458mm	φ315×638mm	φ360×675mm		
Chamber capacity		Internal volume of the chamber: 44 L	Internal volume of the chamber: 58 L	Internal volume of the chamber: 79 L		
Chamber material			SUS304			
Dimensions (mm) (Excluding pro	otruding)	410W,477D,817H	410W,477D,997H	470W,528D,1036H		
Weight		50kg	60kg	72kg		
Rated voltage			230V AC			
Power input		7A	9A	13A		
Required power supply		Single-phase 230 V AC (50/60 Hz) 10A	Single-phase 230 V AC (50/60 Hz) 15A	Single-phase 230 V AC (50/60 Hz) 15A		
Power consumption (calorific po	ower)	1.5kW (1290kcal/h)	2.0kW (1720kcal/h)	3.0kW (2580kcal/h)		
Compliance of standard		EMC Directive 2014/30/EU Low Voltage Directive 2014/35/EU Pressure Equipment Directive 2014/68/EU RoHS Directive 2011/65/EU				
Compliance of Standard		CE marked *1				
Environmental Conditions		When operating the autoclave, observe the environmental conditions given below.Ambient temperature:10 to 35°CAtmospheric pressure: 860 to 1060hPaRelative humidity:30 to 85%Maximum gradient: 2°				
Accessories		Stainless baskets (φ 300×181 mm) 1	Stainless baskets (ϕ 300×181 mm) 2	Stainless baskets (ϕ 345×181mm) 2		
		Chamber bottom Plate 1, Caster stoppers 4, Operation Manual 1, Clear folder (for storing the operation manual) 1, Screw (for attaching the clear folder) 1, Digital Warranty Information 1, Customer card 1, Inspection Sheet 1				

*1 Please refer to the "EU Declaration of Conformity" for detailed standard application.

Opt	tion	/	Ac	ces	sorie	es
Pri	inter					

Operating parameters, chamber temperature, chamber pressure, temperature for articles to be sterilized, and sterilization cycle process can be printed.



Temperature Sensor for Articles to be Sterilized

Directly detects the temperature for articles to be sterilized.







Stainless Basket

Stainless Bucket

Features

- Fine pressure adjustment function
- Ion detector for water level detection
- Microprocessor for controlling temperature
- Standard equipped cooling fan (2 fans)
- Variable exhaust speed (6 levels)
- Operation start timer
- Built-in exhaust bottle (polypropylene)
- Compact design
- Low working table
- Flat internal surface of the chamber
- Top-open lid
- Foot pedal to open lid
- Intuitive display with work monitor
- Operation indication lamp
- Liquid sterilizing course selectable
- Compliance with CE standard (European standard)

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Manufacturer: TOMY KOGYO CO., LTD.

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