

Lab Autoclaves | Automatic Sterilization, Drying Function

SM510C/810C/530/830

Operating temp. range Sterilization: 105~135°C Drying: 135~150°C

Max. working pressure 0.255MPa

Internal capacity 50L 80L

High-performance sterilizer with fully automatic operation for sterilization and drying.



Features

- 7-inch large touchscreen, easy operation with options for Chinese, Japanese and English languages, along with a three-level authorization management system.
- Maximum sterilizing temperature goes up to 135°C, suitable for protein modification.
- By simple setting and operation, these sterilizers manage ordinary sterilization, sterilization of culture mediums and liquids, and dissolution of culture mediums.
- Custom programs can be saved for repeated use.
- Standard equipped with cooling fan to shorten cool down time.
- Equipped with multiple pressure lid opening protection locks and comprehensive safety measures.
- Display power consumption, accumulated power usage, CO₂ emissions, total power-on time, accumulated operating time, and accumulated times of operations.
- SM530/830 has obtained medical device registration and disinfection certificates.

Specifications

Model	SM510C	SM810C	SM530	SM830		
System	Automatic high-pressure steam sterilization+drying					
Medical device registration certificate	None		Yes			
Performance	Operating temp. range 45~135°C: 45~80°C (preheat temp.)/45~60°C (retain temp.)/60~110°C (dissolution)/105~135°C (sterilizing)/135~150°C (drying)					
	Temp. unit 0.1°C					
	Max. working pressure 0.255MPa					
Lid structure	Manual upward opening and downward closing with an interlock for safety					
Chamber	Material 3mm thick corrosion-resistant stainless steel, featuring a mirror finish surface					
	Design operational life 20 years					
	Design pressure 0.42MPa					
	Design temp. 151°C					
	Sterilization heater 110V, 1210W×2					
	Dry heat heater 110V, 295W×2+455W×2		110V, 275W×2+625W×2		110V, 295W×2+455W×2	110V, 275W×2+625W×2
	Drain valve 1 solenoid valve, 1 hand valve					
	Exhaust valve 1 fast exhaust valve, 1 auxiliary exhaust valve, 1 slow exhaust valve					
	Options Sample sensor interface (1/4), data logger sensor interface (1/4), pressure gauge interface (on the auxiliary exhaust solenoid valve piping)					
Controllers	Cooling fan blade Axial fan motor					
	Temp. control method PID control by microprocessor					
	Temp. control setting/display method 7-inch color LCD touchscreen for display and settings					
	Timer 1 min~99 h 59 min, resolution: 1 min or 100 h~999 h, resolution: 1 h					
	Operation functions Instrument sterilization, liquid sterilization, sterilization and retain temp., dissolution and retain temp., sterilization drying, drying					
Additional functions Power consumption, accumulated power usage, CO ₂ emissions, accumulated power-on time, accumulated operating time, and accumulated times of operations						
Other functions Key locking, presetting, saving, preheating, forced cooling, sample temperature sensor (option), pattern locking, alarm log saving (20 pcs), display of present time, ON-OFF beeping setting, language switch function (Chinese/Japanese/English) and three-level authorization management system						
Safety device	Sensor failure detection, SSR short-circuit detection, broken heater wire detection, prevention of air burning (liquid expansion type thermoet), alarm against the absence of drain bottle, failure in locking the lid detection, memory error detection, pressure relief valve (0.255 MPa), overpressure alarm					
Pressure vessel specification	Class I pressure vessel					
Specification	External dimensions (W×D×H mm) 520×660×881 520×660×1161 520×660×881 520×660×1161					
	Effective dimensions of chamber (diameter×height mm) 370×470 370×750 370×470 370×750					
	Internal effective capacity of chamber 50L 80L 50L 80L					
	Weight Approx. 113kg Approx. 137kg Approx. 113kg Approx. 137kg					
	Power supply/rated current AC220V 13A					
Accessories	Basket OSQ-90 (diameter 344 × height 200mm), 2 PCS	Basket OSQ-90H (diameter 344 × height 300mm), 2 PCS	Basket OSQ-90 (diameter 344 × height 200mm), 2 PCS	Basket OSQ-90H (diameter 344 × height 300mm), 2 PCS		
	1 drain bottle, 1 heater baffle, 1 set of sterilization test cards (30 cards), 1 filter plug, 1m drainage pipe, 1 hose clamp, long-arm clamp (SM810C/SM830 model only)					
Options	Biosafety filtration system, sample temperature sensor, internal chamber temperature measurement sensor, miniprinter, data logger, temperature output terminal (4~20mA), external alarm output terminal, time-up output terminal, standard basket, extended height basket					

1 Sterilizers

2 Granulation and Spray Dryers

3 Muffle Furnaces

4 Ovens

5 Incubators

6 Plasma Equipment

7 Water Purifiers

8 Baths

9 Water Circulators

10 Rotary Evaporators

11 Freeze Dryers & Cold Traps

12 Stirrers & Shakers

13 Washers

14 Analysis and Test Devices

15 Options

Disinfection Certificate

Medical Device Registration Certificate

CE Certification

Low bed mode

- Convenient retrieval of sterilized items.

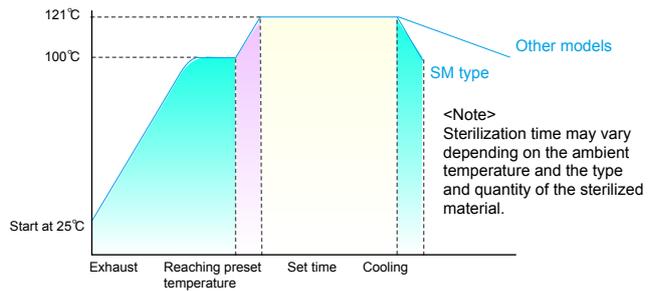


Standard Cooling Fan

- Cooling fan operates after sterilization.
- Cooling down to safe temperature.
- Reducing the time before samples can be taken out.
- Free to choose the forced cooling or natural cooling.

Comparison of cooling time with other devices

(Initial water temperature: 25°C, Sterilization temperature: 121°C, Ambient temperature: 23°C)



Control panel

- 7-inch color LCD touchscreen with operation in Chinese, English and Japanese



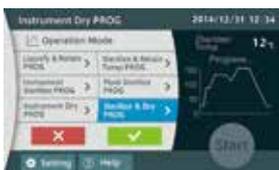
Main screen



Operation mode selection (Instrument sterilization program)



Instrument sterilization program operation



Operation mode selection (Sterilization & drying program)



Sterilization & drying program operation

Sterilization starts automatically according to sample temperature sensor



The optional sample temperature sensor controls sterilization time based on the temperature of the sterilized material, ensuring effective sterilization.

Comply with GLP/GMP inspection requirements



Standard equipped with 2 sensor ports on the main unit.



Optional data logger and high performance pressure gauge.

Space-saving top-opening lid design

Require less setup space compared to other machines.

Maximum sterilization temperature of 135°C

Maximum sterilizing temperature goes up to 135°C suitable for protein modification.

Time-saving

Standard equipped with automatic start and preheat function for more efficient time using.

Sterilizers	1
Granulation and Spray Dryers	2
Muffle Furnaces	3
Ovens	4
Incubators	5
Plasma Equipment	6
Water Purifiers	7
Baths	8
Water Circulators	9
Rotary Evaporators	10
Freeze Dryers & Cold Traps	11
Stirrers & Shakers	12
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Analysis and Test Devices	14
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