

Lab Autoclaves | Automatic Sterilization, Drying Function

SM510C/810C

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.
- Equipped as standard 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.

Specifications

Model	SM510C	SM810C	
System	Automatic high-pressure steam sterilization+drying		
Medical device registration certificate	None		
Performance	Operating temp. range	45~135°C: 45~80°C (preheat temp.)/45~60°C (retain temp.)/60~110°C (melting)/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
	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)	
	Cooling fan blade	Axial fan motor	
Controllers	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	Melt and retain temp., sterilize and retain temp., instrument sterilize, fluid sterilize, instrument dry, sterilize and dry	
	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 thermostat), 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
	Effective dimensions of chamber (diameter×height mm)	370×470	370×750
	Internal effective capacity of chamber	50L	80L
	Weight	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
		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 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 Furnaces

4 Ovens

5 Incubators

6 Plasma Equipment

7 Water Purifiers

8 Baths

9 Water Circulators

10 Rotary Evaporators

11 Stirrers & Shakers

12 Options

Disinfection Certificate
Medical Device Registration Certificate

Low bed mode

- Convenient retrieval of sterilized items

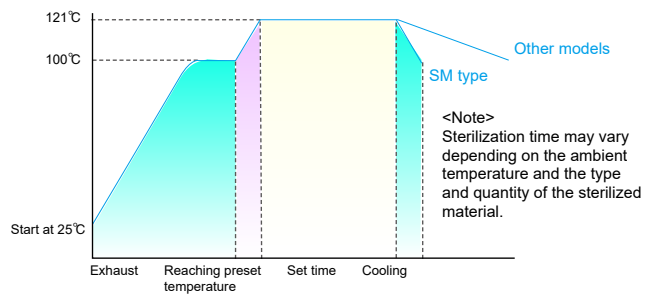


Standard cooling fan

- 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)



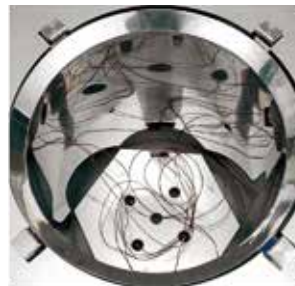
Instrument sterilization program operation



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



Equipped as standard 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

Equipped as standard with automatic start and preheat function to improve time efficiency.

Sterilizers	1
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