Steam Sterilizer (Laboratory Use, Compact)

SN200/210/300/310/500/510

Operating temp. range	45°C to 135°C

Internal capacity	20L SN200/210	32L SN300/310	47L SN500/510

- 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 melting of culture mediums
- Custom programs can be saved for repeated use
- Standard equipped with slow release valve and cooling fan to shorten cool down time
- Mobile on wheels

■ Enhanced safety device

- Lid interlock mechanism
- Drain bottle unset alarm
- Automatic shutdown when malfunction
- Self-diagnostic functions

20L SN200   32L SN300   47L SN500

■ Specifications

Product code	241005	241054	241006	241055	241007	241056
Model	**SN200**	**SN210**	**SN300**	**SN310**	**SN500**	**SN510**
System	Automatic high-pressure steam sterilization*1					
Operating temperature range	45~135°C 〈45~80°C (Preheating temperature)/45~60°C (Heat-retention process)/65~100°C (Solution process)/105~135°C (Sterilization)〉					
Max. working pressure	0.255MPa					
Ambient temperature	5~35°C					
Lid	Manual upward opening with an interlock for safety					
Heater	100V, 600W×2 units		100V, 800W×2 units		100V, 950W×2 units	
Exhaust valve	One exhaust valve and one slow release valve					
Connection ports for optional accessories	Total 3 ports. Female thread for sample temp. sensor (1/4"), Female thread for chamber temp. sensor (1/4"), Female thread pressure sensor (Branching from the solenoid valve tubing)					
Cooling fan	Axial fan motor					
Temp. controller	PID control by microprocessor					
Temp. display / setting	Digital display / digital setting by ▲/▼ keys					
Timer / Timer resolution	0 or 1 min. to 99 hrs 59 min. / 1 min.					
Operation mode	Instrument sterilization course, Liquid sterilization course, Sterilization and keep warm course, Melting and keep warm course, Customer-programmed course					
Other functions	Key locking, Presetting, Saving, Preheating, Forced cooling, Sample temperature sensor (option), Pattern locking, Up to 20 error log saving, Display of accumulated working time / Present time, ON-OFF beeping setting					
Safety device	Sensor failure detection, SSR short-circuit, Broken heater wire, Prevention of idle heating (Liquid expansion type), Alarm against the absence of a drain bottle, Failure in locking the lid, Memory error detection, Pressure relief valve (0.255 MPa)					
External dimensions*2	W400×D530×840mm		W460×D590×H848mm		W460×D590×H1,068mm	
Internal dimensions of chamber	I.D.240×D445 mm		I.D.300×D445 mm		I.D.300×D665 mm	
Internal capacity	20L		32L		47L	
Weight	Approx. 65kg		Approx. 75kg		Approx. 85kg	
Power source (50/60Hz single phase)	AC100~120V (12.5~15A)	AC200~240V (6.5~7.5A)	AC100~120V (16.5~20A)	AC200~240V (8.5~10A)	AC100~120V (19.5~23.5A)	AC200~240V (10~12A)
Accessories	2 pcs. stainless steel mesh basket (Dia.209×D204mm), OSM-60		2 pcs. stainless steel mesh basket (Dia.266 ×D204mm), OSM-70		3 pcs. stainless steel mesh basket (Dia.266×D204mm), OSM-70	
	Vapor cup×1, Drain bottle×1, Drain board×1, Filter×1					

The length of the power cord is about 3m outside the unit.
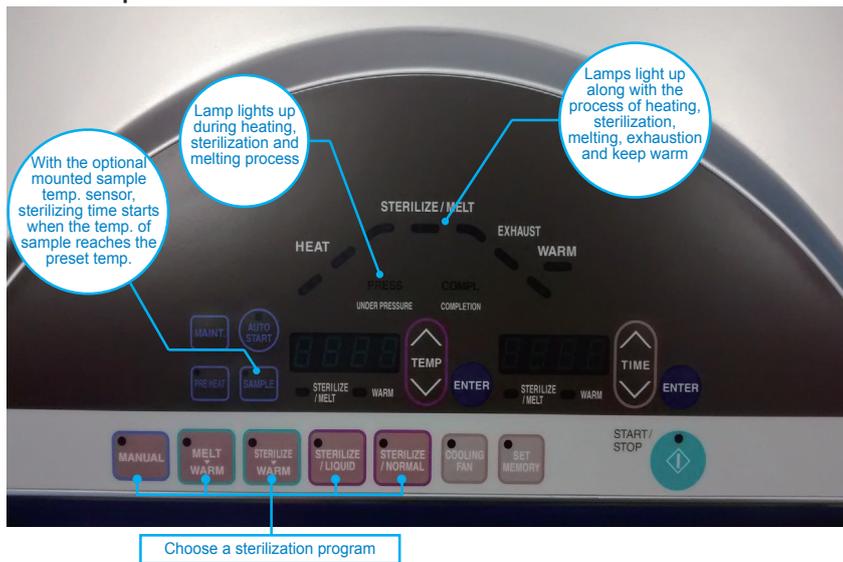*1 This is not a medical device.   *2 Do not include protrusions

2003

■ Control panel

Lamp lights up during heating, sterilization and melting process

Lamps light up along with the process of heating, sterilization, melting, exhaustion and keep warm

With the optional mounted sample temp. sensor, sterilizing time starts when the temp. of sample reaches the preset temp.

STERILIZE / MELT

HEAT   EXHAUST
                    WARM

PRESS   COMPL.
UNDER PRESSURE   COMPLETION

MAINT   AUTO START

PRE HEAT   SAMPLE

TEMP   ENTER

STERILIZE / MELT   WARM

STERILIZE / MELT   WARM   ENTER

TIME   ENTER

START / STOP

MANUAL   MELT WARM   STERILIZE WARM   STERILIZE / LIQUID   STERILIZE / NORMAL   COOLING FAN   SET MEMORY

Choose a sterilization program

Sterilize/Normal Course	Sterilization of equipment such as flask, beaker, test tube, scissors
Sterilize/Liquid Course	Sterilization of culture and reagents and keep warm
Sterilize Warm Course	Dissolve and keep warm of the agar medium
Melt Warm Course	Sterilization of liquid, purified water and dilution water
Manual Course	Customized temperature and time settings

Standard Equipped with Cooling Fan & Slow Release Valve

● For decompression and prevention of liquid samples from bumping
● Cooling fan cool to a safe temperature after sterilization completes
● Shortens time before samples are taken out
● Natural cooling by OFF setting

■ Features

Support GLP / GMP Inspection

Standard equipped with 2 sensor ports on the main unit

Optional recorder and high performance pressure gauge

Sterilization starts automatically by sample temperature sensor

With the optional mounted sample temperature sensor, desired sample temperature can be precisely maintained to ensure thorough sterilization

Easy to drain out sterilizing water

Easier maintenance with larger diameter drain pipe

Front Loading Drain Bottle

The drain bottle is located infront for easy access and drain water level can be monitored without opening the cabinet door

Enhanced safety devices

● Steam cup
● Lid's interlock mechanism
● Self-diagnosis
● Alarm against the absence of a drain bottle
● Leakage breaker
● During any malfunction, the autoclave will automatically shutdown with the alarm buzzer sounding and an error message being displayed.

■ Optional items

No.	Description	Model	Corresponding models	Product code
①		OSM-60	SN200/210	241087
②	Mesh basket	OSM-70	SN300/310/500/510	241088
③		OSM-80	SN500/510	241089
④		OSQ-30	SN200/210, with 2 fittings/set	241093
⑤	Mesh basket with stacking fittings	OSQ-40	SN300/310, with 2 fittings/set	241092
⑥		OSQ-50	SN500/510, with 3 fittings/set	241091
⑦		OSQ-60	SN200/210, with 1 mesh shelf	241096
⑧	Mesh basket with adjustable stainless steel perforated plate	OSQ-70	SN300/310, with 1 mesh shelf	241095
⑨		OSQ-80	SN500/510, with 2 meshshelf	241094
⑩	Stainless solid basket	OSR-10	SN200/210	241083
⑪		OSR-20	SN300/310/500/510	241084
⑫	Stainless bucket	OSN10	SN200/210	241150
⑬		OSN12	SN300/310/500/510	241151
⑭	*Chamber temperature sensor, 3pcs/set	OSR-70	All models	241153
⑮	*Sample temperature sensor, 1pc	OSN16	All models	241154
⑯	*Pressure gauge	OSN18	All models	241155
⑰	*External alarm output terminal	OSN20	All models	241157
⑱	*Temperature output terminal (4~20mA)	OSN22	All models	241158
⑲	*Time-up output terminal (Reray, contact output)	OSN24	All models	241159

* Please specify when ordering main unit.

● Stainless baskets

⑦⑧⑨ Baskets with adjustable stainless steel perforated plate

①②③ Mesh baskets

⑩⑪ Stainless solid baskets

④⑤⑥ Baskets with stacking fittings

● Stainless buckets

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