



Laboratory Equipment Manufacturer
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STEAM STERILIZER

Operation Manual

STE-TIN/TAN



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Thank you for choosing this Steam Sterilizer.

Please read the instructions manual carefully in order to install the equipment and operate the equipment in an efficient manner.

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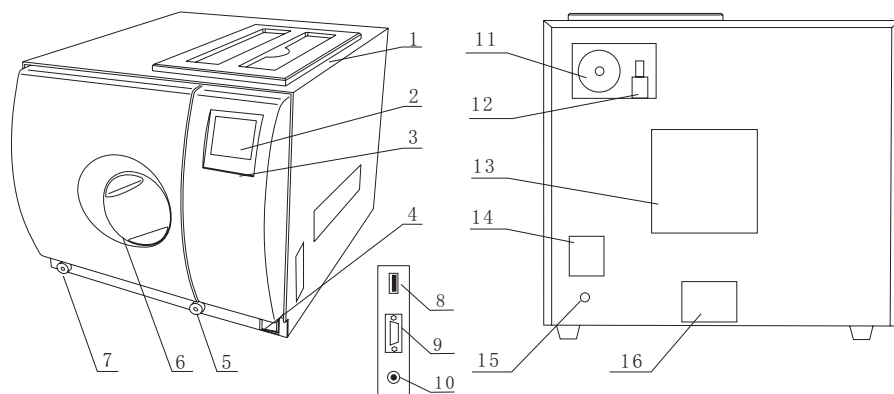
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1 General

This sterilizer described in this manual is intended for the sterilization of re-useable surgical instruments and material.

It operates automatically with 134°C and 121°C sterilization temperatures.

It has been produced in accordance with the EN 13060.



1 Distilled water tank

2 LCD screen

3 Control panel

4 Main switch

5 Drain connector of distilled water tank

6 Door handle

7 Drain connector of used water tank

8 USB port (optional)

9 Printer port

10 Printer power

11 Bacteriological filter

12 Safety valve

13 Condenser ventilation

14 Circuit breaker

15 Power supply cord

16 Rating plate

Security Notice

In order to proper use the sterilizer, please be sure to read the warning and attention carefully for safety.



This symbol is grounding protection inside the machine.



HOT SURFACE.

This symbol is visible on the front of the panel after open the door.



Important safety information.

This symbol is used to draw the attention of the reader to particularly important notions for operator safety.

2 Technical Parameter

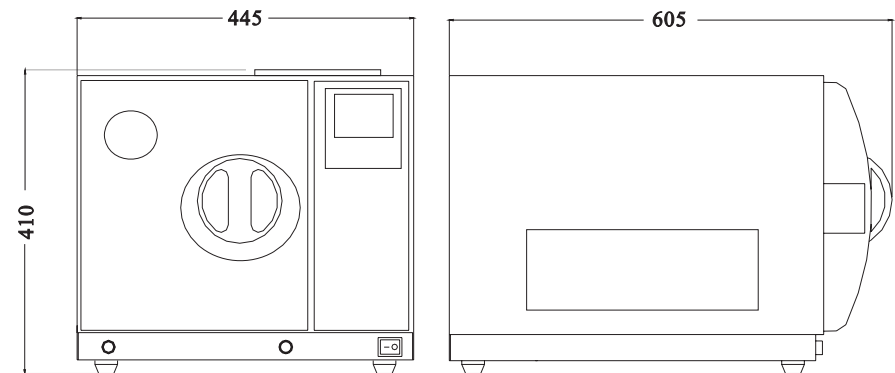
Item	12	16
Chamber	Φ200mmX360mm	Φ230mmX360mm
Rated Voltage	AC220V-240V(AC110V-130V), 50-60Hz	
Main Fuses	F16A/250V(F25A/250V for 110V)	
Nominal power (CLASS B)	2000VA	
Nominal power (CLASS N)	1900VA	
Sterilization Temperature	121°C/134°C	
Capacity of the distilled water tank	Approx 2.5L (water at level MAX)	
	Approx 0.5L (water at level MIN)	
Operation temperature	5 - 40°C	
Outside size	445mm(width)X 410mm(height)X 605mm(depth)	
Net weight (CLASS B)	41kg	45kg
Net weight (CLASS N)	39kg	43kg
Noise	<70dB	
Relative Humidity	max. 80%, non condensing	
Atmospheric pressure	76kPa -106kPa	

3 Packing Content

No.	Item	Quantity
1	Steam sterilizer	1
2	Instrument tray	2
3	Instrument tray rack	1
4	Instrument tray handle	1
5	Door adjustment tool	1
6	Draining hose	2
7	Instructions manual	1
8	Door seal	1

4 Installation

- * There must be 10cm gap around sterilizer, and 20cm on top side. the clearance required for the movement of the door: leave at least 350mm fan-shaped space in front of the door.
- * The place which sterilizer located must be ventilated, make sure that the radiator not being jammed.
- * The sterilizer should be placed on a level worktable.
- * Don't cover or block the door, ventilation or radiation openings on the sterilizer.
- * Don't place the sterilizer near a sink or in a location where it is likely to be splashed.
- * Keep away from all sources of heat.



5 Operation

5.1 Ready

5.1.1 Open the door and take out all the instrument tray and other accessories inside, unpack and clean them.

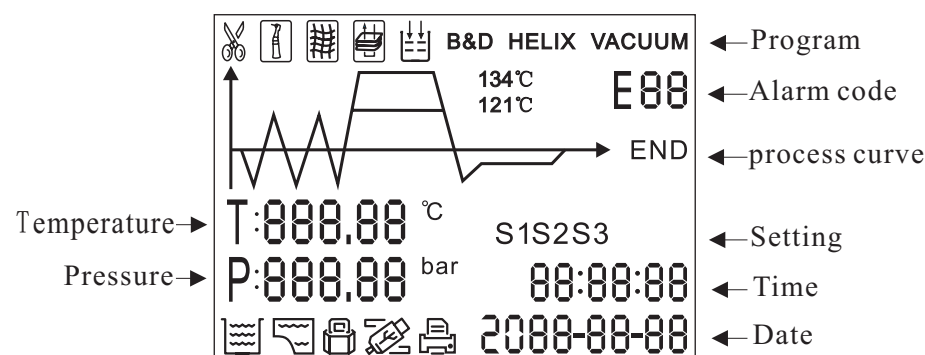
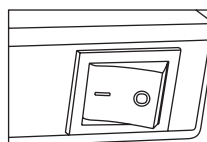
5.1.2 Connect the power, and connect the printer (See 6.5)

5.1.3 Power on

The switch is located underneath the control panel on the front side of the machine .

After switching on, the machine turns on the LCD . Then it will show the door position, water level, working program, date, time and etc. .

The machine will alert by beep sounds if there are problems.



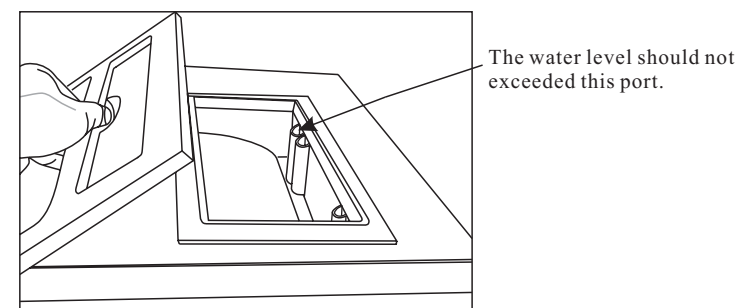
- Distilled water tank is lacking of water.
- Distilled water tank is full
- Used water tank is full.
- Door locked
- information output to USB port
- Printer connect

Notice: Before using the sterilizer at the first start-up or any time the icon blink, it is necessary to fill the distilled water tank with distilled water.

5.1.4 Filling the distilled water

Open the top lid, and fill the tank with distilled water by cup or tank.

When you hear a beep signal, it means the water level exceeds the max. level. The will be displayed. Please stop filling immediately.



5.2 Preparing the material to be sterilized

To get the better effectiveness of the sterilization process and to preserve the material in time, follow the indications below reported.

- * Arrange the tools of different metal (stainless steel, moderate steel, aluminum, etc.) on different trays or however well separate between them;
- * In case of not stainless steel tools, interpose a sterilization paper napkin or muslin cloth between tray and tool, avoiding direct contacts between the two different materials;
- * Verify all the tools are sterilized in open position;
- * Arrange the containers (glasses, cups, test-tubes, etc.) on one side or inverted position, avoiding possible water stagnation;
- * Don't overload the trays over the stated limit (see Appendix 1).
- * Don't stack the trays one above the other or put them in direct contact with the walls of the sterilization chamber.
- * Always use the instrument tray handle.
- * Wrap the tools one by one or, if more tools have to be set in the same wrap, verify that they are of the same metal;
- * Seal the wrap with sterilization adhesive ribbon or by a thermal sealer.
- * Don't use metallic clips, pins or other, as this jeopardizes the maintenance of the sterility;

* Turn the sterilization paper in order to set the plastic part downward (tray side) and the paper part upward.

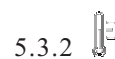
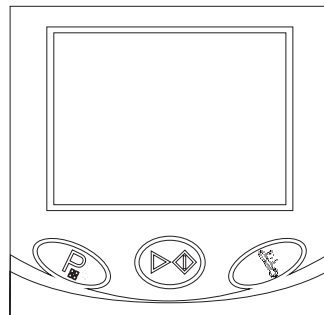


Always wrap the tools in case of prolonged store.

5.3 Selecting the sterilization program

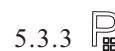
5.3.1 LCD

It displays the cycle temperature, pressure, error code, sterilization state and program.



temperature button

Select temperature of sterilization.



Program button

Select program of sterilization.

5.3.4 START/STOP button

Press this button to start the sterilization cycle, holding this button above 3 seconds to stop the cycle.

5.3.5 Select the program

Press TEMP button to select the temperature. And press PROGRAM button to select the program.



SOLID



WRAPPED



TEXTILE OR DRYING



PRION



LIQUID

B&D

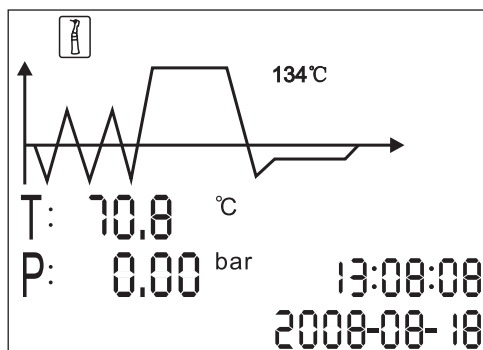
B&D TEST

HELIX

HELIX TEST

VACUUM

VACUUM TEST



(CLASS B)

Notice: The button will be locked for 10 seconds after you switch on. It initializes its system and check the states during that time.



SOLID



WRAPPED



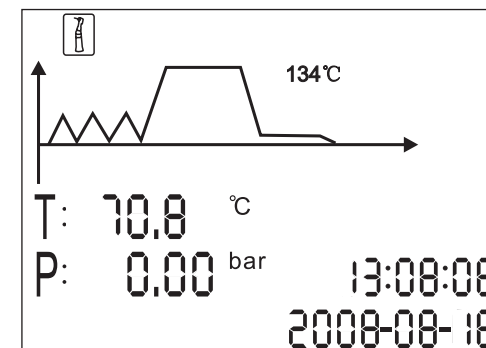
TEXTILE OR DRYING



DRYING



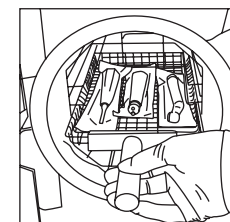
LIQUID




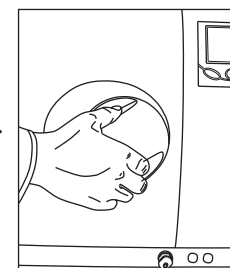
(CLASS N)

5.4 Running the sterilization program.

After selecting program, put the instruments into the chamber by tray handle.



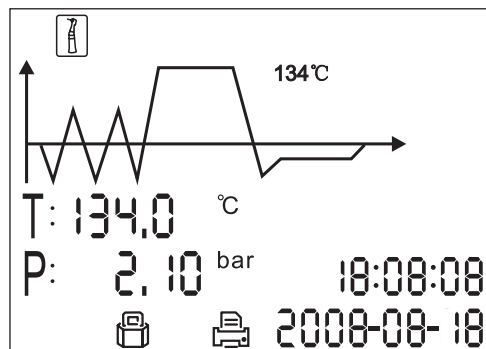
5.4.1 After the instruments are loaded, you may close and lock the door by turning the door handle clockwise until it stops. The icon  will be lightened.



Caution: You must turn the door handle to the maximum position, otherwise the machine will alarm and stop working during the cycle.

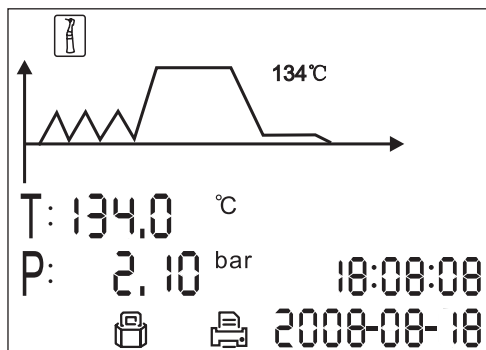
5.4.2 Start the sterilization program.

Press START button the machine will begin the cycle automatically.
It will take 30-75 minutes. (See Appendix 2)




(CLASS B)

total time or
time count down
of holding time
and end time



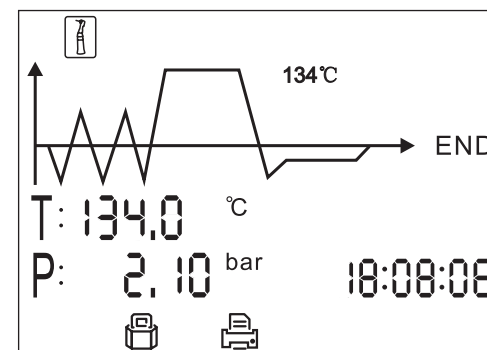
(CLASS N)

total time or
time count down
of holding time
and end time

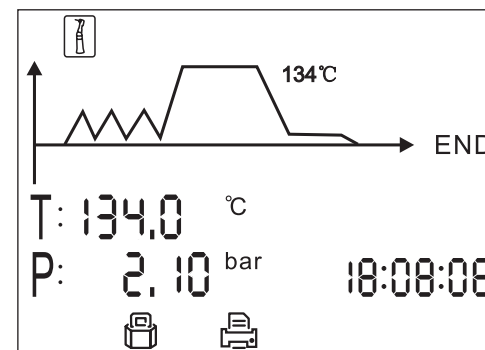
Caution: When you press the "START" button but the door have not to be closed. You will see the  blinks on the screen, You can not start a cycle until you close the door to the max. position and press the "Start" button again.

5.4.3 Sterilization cycle completion

After a cycle is completed, the printer will start work and print the report of the sterilization cycle data.(if you connect the printer)
After the pressure is 0, you may open the door, and take out the sterilized instruments.



(CLASS B)



(CLASS N)



Always use the tray handle to load or unload the tray in order to avoid scald.

If you need the instrument urgently. You may set the drying time to 0. It will skip the drying stage.

Or you may holding the START button for 3 seconds after finish the holding time and the pressure is 0.

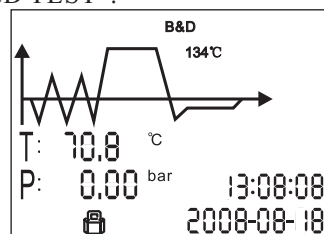
The program will go directly to the last step and skip the drying stage. After one minute later it will show END.

5.5 Test programs (CLASS B)

5.5.1 Press PROGRAM button, select the "B&D TEST".

5.5.1.1 Put the Bowie-Dick pack into the chamber. Then close the door and press "START".

5.5.1.2 After finish the cycle you check the indicator. And evaluate the result.

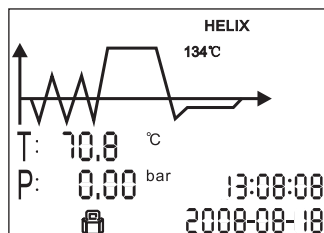


5.5.2 Select the "HELIX TEST"

5.5.2.1 Put the indicator paper in the capsule.

5.5.2.2 Put the Helix tube into the chamber. Then close the door and press "START".

5.5.2.3 After finish the cycle you check the indicator. And evaluate the result.



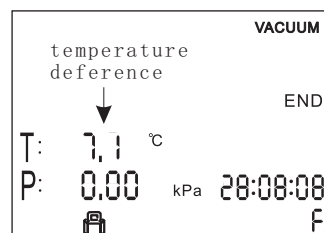
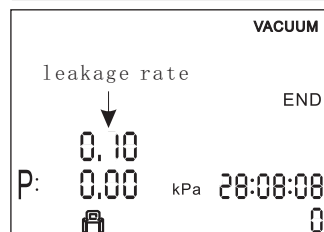
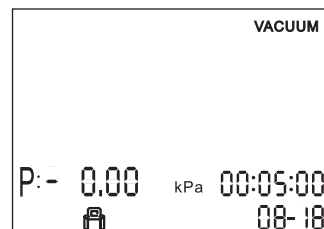
5.5.3 Select the "VACUUM TEST"

5.5.3.1 Then close the door and press "START" button.

5.5.3.2 After finish it will show the result.

5.5.3.3 In compliance with EN 13060, the test requires the air leakage rate less than or equal 0.13kPa/min during the 10 minutes. If the leakage rate is not greater 0.13, it will show 0 means success. Or it will show F means failure.

5.5.3.4 If the temperature difference between the max. temperature and the min. temperature is above 3, it will show the value T on the screen and show F. That means the result of test is void. You need run the vacuum test again after the chamber has cooled down.



Caution: The VACUUM TEST must be carried out with unit cold. If the T_p is greater 3°C, it will show failure.

6 Advanced Setting

6.1 Enter the setting

6.1.1 Holding the START button and open the main switch. After about 5 seconds it will enter the setting screen.

6.1.2 Select the state by press PROGRAM button. The state you selected will glitter. Press the START button to enter the setting.

S1

6.2 S1 state

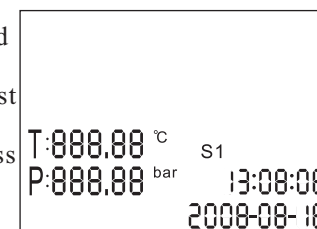
If you select the S1 and enter the state.

You may change the unit of temperature and pressure, adjust time and date.

6.2.1 You will select the unit of temperature first. Press TEMP button to select °C or °F. The unit you selected will be lighted. Press the PROGRAM button to the next item.

6.2.2 You may set the pressure unit as the same method.

6.2.3 Then press PROGRAM button to the next item to adjust the time and date. After the last word of the date or time is set, then the data is permitted to be saved. If you want to finish the setting you shall press START. It will return to the screen of selecting states.



6.3 S2 state

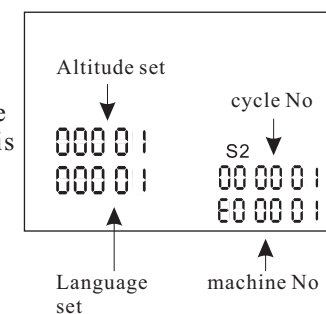
6.3.1 You may check the count of sterilization cycle. It can not be changed by operator.

6.3.2 Set the parameter for high altitude.

If you can't enter the holding time and use this machine at a high altitude place that is above 2.0 kilometers or atmospheric pressure is below 80kPa you need set the parameter. The scope is 0~2.

6.3.3 Language set:

00 English 01 German 02 Spanish
03 Polish 04 French 05 Magyar
06 Romanian 07 Dutch 08 Lithuanian 09 Latvian



If use this sterilizer on a place above 2 km, you need to reevaluate the sterilization result. And you may correct the effect by prolong the holding time.



The Machine No. And cycle No can not be set by the operator.

6.4 S3 state

6.4.1 Adjust the holding time of sterilization and drying time.

Press PROGRAM button to select the program.(✂ 📏 📊 📅 📋)

Press TEMP button to select the temperature of program.

Then press START to adjust the drying time and holding time.

6.4.2 First to adjust the holding time.

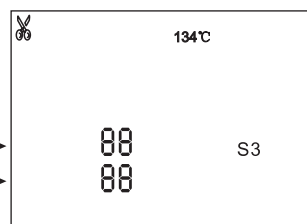
Press TEMP button to adjust the data.

Press the PROGRAM button to select the items.

6.4.3 Press START to save .

holding time →

drying time →



6.4.4 Drying time is 0-19.

Holding time of 121°C is 1-59.

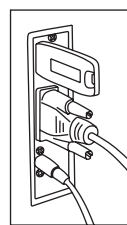
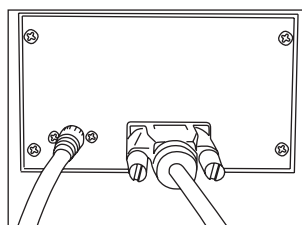
Holding time of 134°C is 1-19.

Notice: We don't suggest the operator to adjust the parameter of sterilization if it is not necessary.

6.5 Printer (Optional)

6.5.1 Connect the printer cable.

6.5.2 Connect the printer power.



6.6 USB Flash memory (Optional)

Insert the USB stick to the slot.

The information will output to USB stick after the cycle finish.
The name of the file is according to the number of machine and the cycle number.

For example:

The machine number is E00001.

The cycle number is 00012.

The file name in the USB stick is 01001200.txt.

The first two numbers represent machine number.

The middle four numbers represent cycle number.

The last two numbers represent error code.

00: no error; 01: error E01

6.7 Record of the cycle

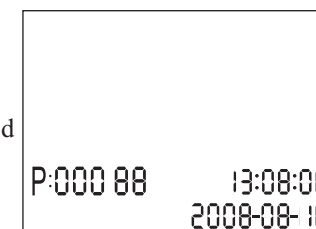
Select to this interface by PROGRAM button.

It will show cycle No. .

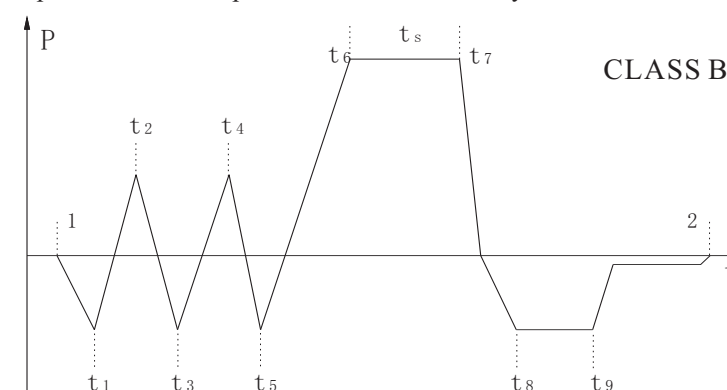
Select the different cycle No. by press TEMP button.

It will output the information to printer and USB port after you press START button.

It can be stored the last 20 records.



The sample of content of print and files in memory as below:



Program: WRAPPED
 Temperature: 134°C
 Pressure: 210.0 kPa
 Dry Time: 03Min
 Ster Time: 4.0Min

time	temp.	pressure
Start 15:24:20	042.0°C	
T1: 15:32:11	040.0°C	-78.2kPa
T2: 15:36:08	105.3°C	052.7kPa
T3: 15:39:21	061.3°C	-80.4kPa
T4: 15:44:32	110.3°C	051.6kPa
T5: 15:47:12	067.0°C	-80.4kPa
T6: 16:00:11	135.2°C	220.3kPa
TS:	134.8°C	221.6kPa
MAX.Temperature:135.5°C		
MIN.Temperature:134.1°C		
MAX.Pressure:230.4kPa		
MIN.Pressure:212.9kPa		
T7: 16:04:02	135.0°C	223.5kPa
T8: 16:06:32	92.8°C	-60.1kPa
T9: 16:09:22	90.4°C	-60.1kPa
End 16:14:12	78.2°C	

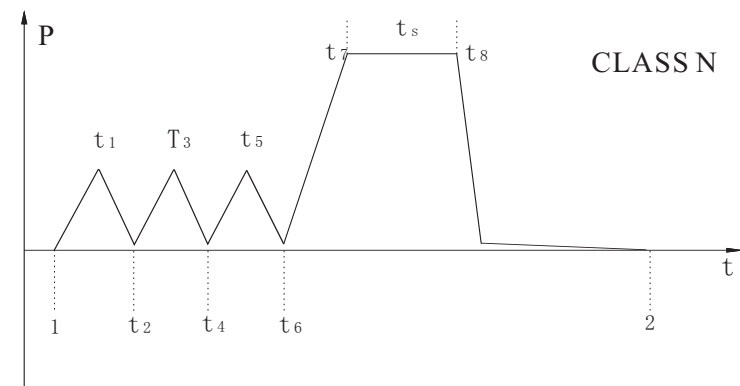
Cycle No: 0005
 Ster Value: Success
 Date: 2011-01-18
 SN:E00001
 Operator:

Program: Vacuum test
 Tp: 1°C
 P1: -70.0kPa
 P2: -69.0kPa
 rate of pressure rise: 0.10
 Start Time: 08:22
 End Time: 09:01
 Date: 2011-01-18
 Cycle No.:0001
 Test Value: Success
 SN: E00001
 Operator:

Program: WRAPPED
 Temperature: 134°C
 Pressure: 210.0 kPa
 Dry Time: 03Min
 Ster Time: 4.0Min

time	temp.	pressure
Start 17:34:20	042.0°C	
T1: 17:42:11	040.0°C	-78.2kPa
T2: 17:46:08	105.3°C	52.7kPa
T3: 17:49:21	061.3°C	-80.4kPa
T4: 17:54:32	110.3°C	51.6kPa
T5: 00:00:00	000.0°C	000.0kPa
T6: 00:00:00	000.0°C	000.0kPa
TS:	000.0°C	000.0kPa
MAX.Temperature:000.0°C		
MIN.Temperature:000.0°C		
MAX.Pressure:000.0kPa		
MIN.Pressure:000.0kPa		
T7: 00:00:00	000.0°C	000.0kPa
T8: 00:00:00	000.0°C	000.0kPa
T9: 00:00:00	000.0°C	000.0kPa
End 17:54:42	100.2°C	010.1kPa

Cycle No: 0007
 Ster Value: Failure E01
 Date: 2011-01-18
 SN:E00001
 Operator:



Program: WRAPPED
 Temperature: 134°C
 Pressure: 210.0 kPa
 Dry Time: 03Min
 Ster Time: 4.0Min

time	temp.	pressure
Start 15:24:20	042.0°C	
T1: 15:32:11	070.0°C	053.2kPa
T2: 15:36:08	075.3°C	009.7kPa
T3: 15:39:21	090.3°C	050.4kPa
T4: 15:44:32	094.3°C	009.6kPa
T5: 15:47:12	119.0°C	102.4kPa
T6: 16:00:11	110.2°C	009.3kPa
TS:	134.8°C	221.6kPa
MAX.Temperature:135.1°C		
MIN.Temperature:134.5°C		
MAX.Pressure:230.4kPa		
MIN.Pressure:212.9kPa		
T7: 16:04:02	135.0°C	223.5kPa
T8: 16:06:32	134.8°C	214.1kPa
End 16:14:12	78.2°C	

Cycle No: 0005
 Ster Value: Success
 Date: 2011-01-18
 SN:E00001
 Operator:

Program: WRAPPED
 Temperature: 134°C
 Pressure: 210.0 kPa
 Dry Time: 03Min
 Ster Time: 4.0Min

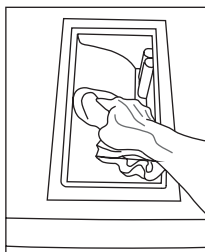
time	temp.	pressure
Start 17:34:20	82.0°C	
T1: 17:42:11	090.0°C	052.2kPa
T2: 17:46:08	085.3°C	009.7kPa
T3: 17:49:21	108.3°C	053.4kPa
T4: 17:54:32	100.3°C	009.6kPa
T5: 00:00:00	000.0°C	000.0kPa
T6: 00:00:00	000.0°C	000.0kPa
TS:	000.0°C	000.0kPa
MAX.Temperature:000.0°C		
MIN.Temperature:000.0°C		
MAX.Pressure:000.0kPa		
MIN.Pressure:000.0kPa		
T7: 00:00:00	000.0°C	000.0kPa
T8: 00:00:00	000.0°C	000.0kPa
End 17:54:42	100.2°C	010.1kPa

Cycle No: 0007
 Ster Value: Failure E01
 Date: 2011-01-18
 SN:E00001
 Operator:

7 Maintenance

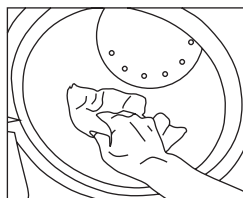
Frequency	Operation
Daily	Cleaning the door seal
	Cleaning the external surface
Weekly	Cleaning the reservoir
	Cleaning the chamber
Every 3/6 monthly (depending on the use frequency)	Replacing the bacteriological filter (CLASS B)
Every year	Replacing the door seal

7.1 Clean the distilled water tank every week with medical disinfectant .



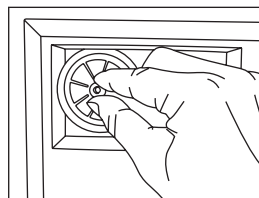
7.2 Clean the chamber weekly.

- 7.2.1 Remove the trays and rock from the chamber.
- 7.2.2 Clean the chamber with non-plush cloth saturated with distilled water.
- 7.2.3 Apply the same procedure for the trays and rock.



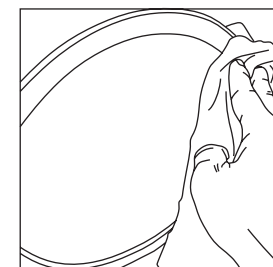
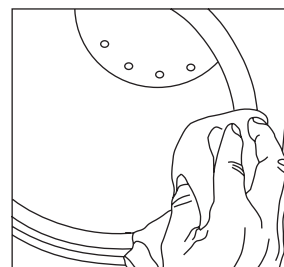
7.3 Replacement of the bacteriological filter

- 7.3.1 The bacteriological filter is at the back of the sterilizer.
- 7.3.2 Unscrew the filter by hand (anti-clockwise).
- 7.3.3 Replacing the bacteriological filter.
- 7.3.4 Screw the new filter by hand clockwise.



7.4 Clean the door seal

Clean the door seal weekly, with non-plush cloth saturated with the distilled water.



7.5 Door adjustment

On normal circumstance the chamber door lock don't need to adjust. Once steam leaking occurs (the seal fails), you may use the spanner to adjust door seal.

7.5.1 Open the door first

7.5.2 Insert the spanner in the gap beneath the plastic cover; use the spanner to lock on the adjusting nut (Fig 1). Turn the nut counter clockwise as the figure below (Fig 2). This will tighten the sealing plate.

7.5.3 Turn the nut until the sealing plate is tight. If the door knob is too tight, you may also turn the nut clockwise to loosen it.

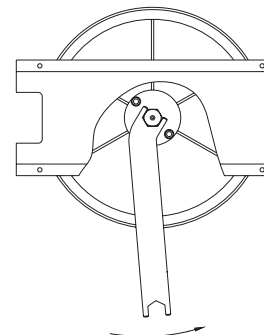


Fig 1

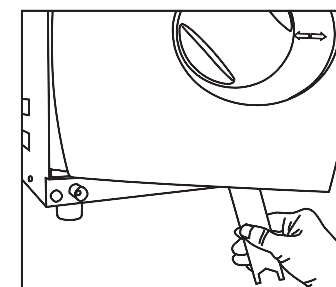


Fig 2

Caution: Never try to readjust the chamber door while the door is locked.

7.6 Replacement of the door seal

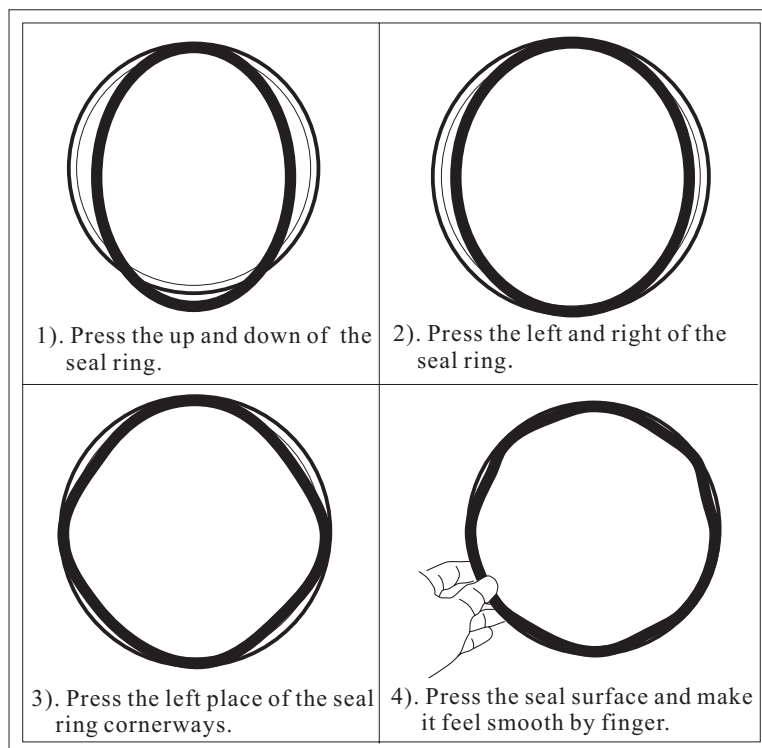
7.6.1 Fully open the door.

7.6.2 Remove the door seal ring carefully by hand.

7.6.3 Clean the door seal ring carefully with a non-plush cloth saturated with distilled water.

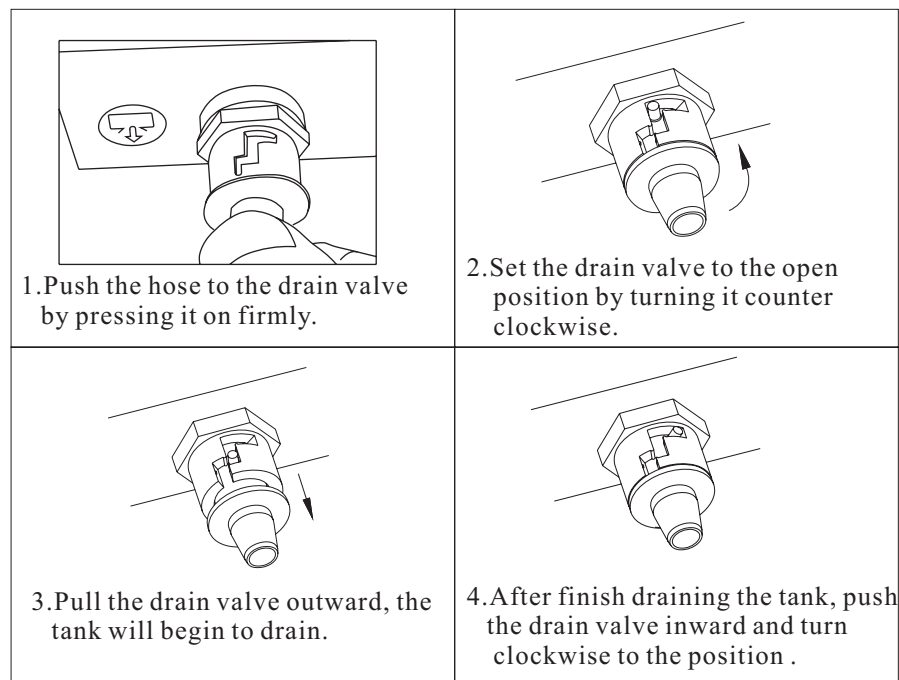
7.6.4 Moisten the new seal ring with medical disinfectant .

7.6.5 Insert the new seal ring and press in sequence as the following.



Caution: Please ensure the chamber and the door has been cool down before you replace the seal ring.

7.7 The drain valve



8 Transportation and Storage

8.1 Switch off the sterilizer before transportation or storage. Pull out the plug to let the machine cool down.

8.2 Drain the distilled water tank and the used water tank

8.3 Conditions for transportation and storage:

Temperature: -20 ~ +55

Relative humidity: ≤85%

Atmospheric pressure: 50kPa~106kPa

9 Error codes

Code	Description	Proposed solution
E1	Steam generator temperature sensor error	Check the steam generator temperature sensor
E2	Inner temperature sensor error	Check the inner temperature sensor
E3	Temperature sensor of chamber wall error	Check temperature sensor of chamber
E4	Fail to rise temperature	Check the water release valve
E5	Fail to release the pressure	Check the air release valve Check the vacuum pump valve
E6	Door has opened during the cycle	Make sure you have turned the door handle to the max. Position or check the door switch
E9	Failure to hold temperature	Ensure the distilled water tank isn't empty Check the inner temperature sensor Check somewhere leaking
E11	Failure to preheat the steam generator	Check the steam generator heater Check the steam generator protector
E12	Failure to preheat the chamber	Check the chamber heater Check chamber protector
E13	Vacuum failed (CLASS B)	Check the vacuum pump
E20	Program manually interrupted	Shut off the power and restart the power

10 Safety devices

(1)Main fuses

Protection of the whole equipment against possible failures of the heating resistor .

Action: Interruption of the electric power supply.

(2)Thermal cutouts on the mains transformer windings

Protection against possible short circuit and mains transformer primary winding overheating .

Action: Temporary interruption (up to the cooling) of the winding.

(3)Safety valve

Protection against possible sterilization chamber over-pressure .

Action: release of the steam and restoration of the safely pressure.

(4)Safety micro-switch for the door status

Comparison for the correct closing position of the door .

Action: signal of wrong position of the door.

(5)Manually reset thermostat on chamber heating resistors

Protection for possible overheating of the chamber heating resistors .

Action: Interruption of the power supply of the chamber resistors.

(6)Manually rest thermostat on steam generator

Protection for possible overheating of the steam generator .

Action: Interruption of the power supply of the steam generator.

(7)Door safety lock

Protection against accidental opening of the door.

Action: Impediment of the accidental opening of the door during the program.

(8)Self-leveling hydraulic system

Hydraulic system for the natural pressure levelling in case of manual cycle interruption, Alarm or black-out .

Action: automatic restoration of the atmospheric pressure inside chamber.

APPENDIX 1

Characteristics of the feeding water

DESCRIPTION	FEED WATER	CONDENSATE
Evaporate residue	≤10 mg/l	≤1.0 mg/kg
Silicium oxide SiO_2	≤1 mg/l	≤0.1 mg/kg
Iron	≤0.2 mg/l	≤0.1 mg/kg
Cadmium	≤0.005 mg/l	≤0.05 mg/kg
Lead	≤0.05 mg/l	≤0.1 mg/kg
Rest of heavy metals, excluding iron, cadmium, lead	≤0.1 mg/l	≤0.1 mg/kg
Chloride	≤2 mg/l	≤0.1 mg/l
Phosphates	≤0.5 mg/l	≤0.1 mg/l
Conductivity (at 20°C)	≤15 μs/cm	≤3 μs/cm
pH value	5–7.5	5–7
Appearance	Colorless, clean, without sediments	Colorless, clean, without sediments
Hardness	≤0.02 mmol/l	≤0.02 mmol/l

APPENDIX 2

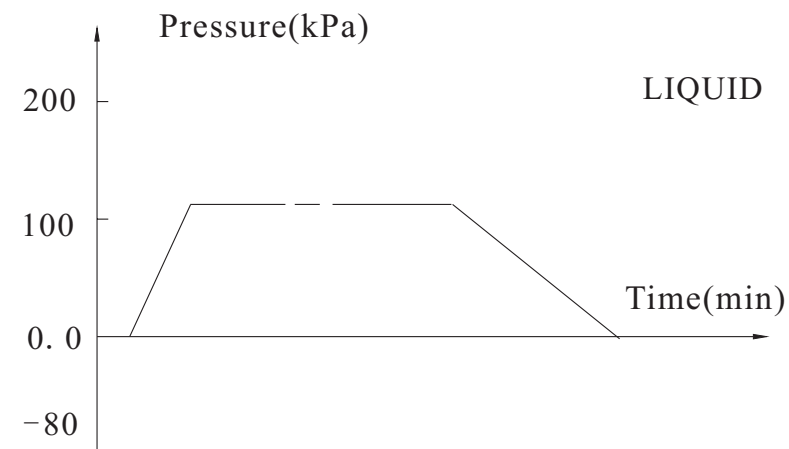
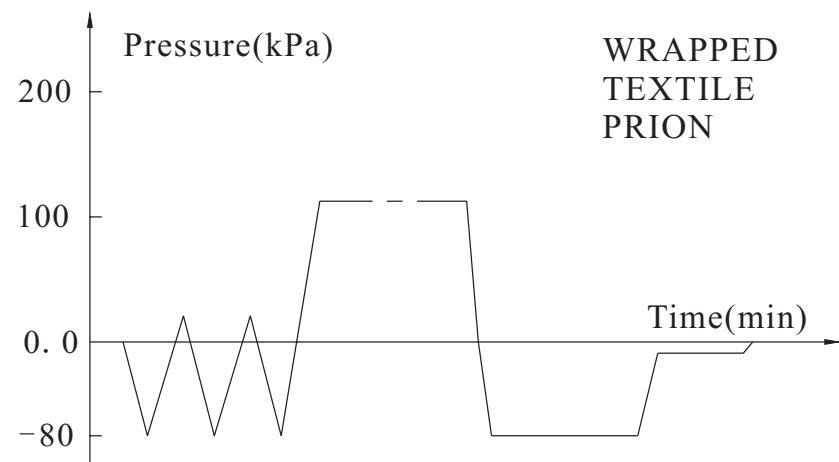
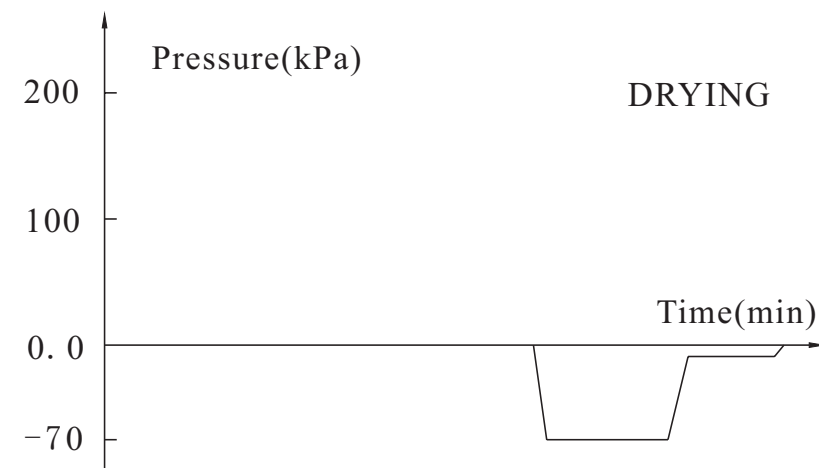
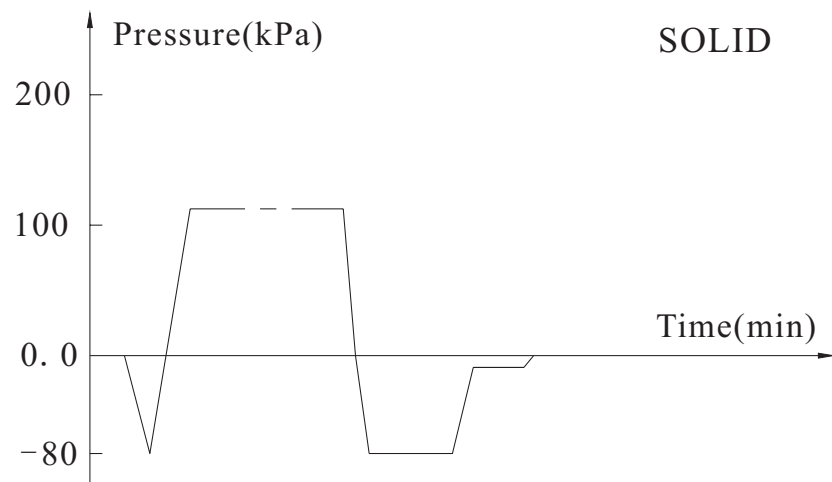
DIAGRAMS OF THE STERILIZATION PROGRAMS

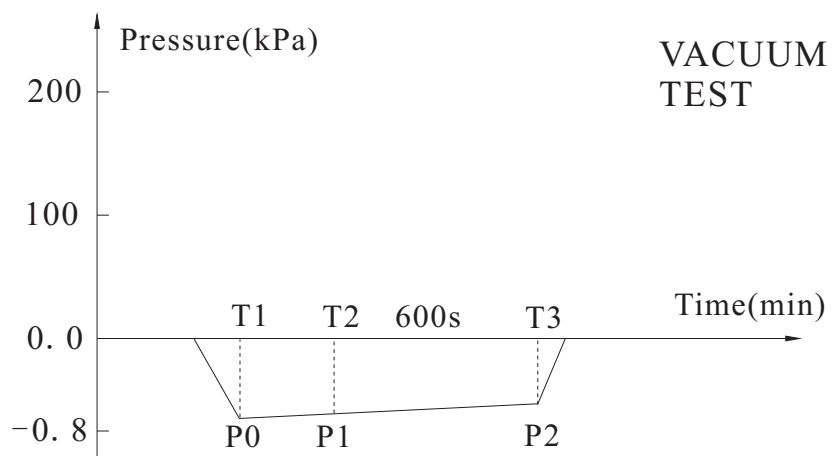
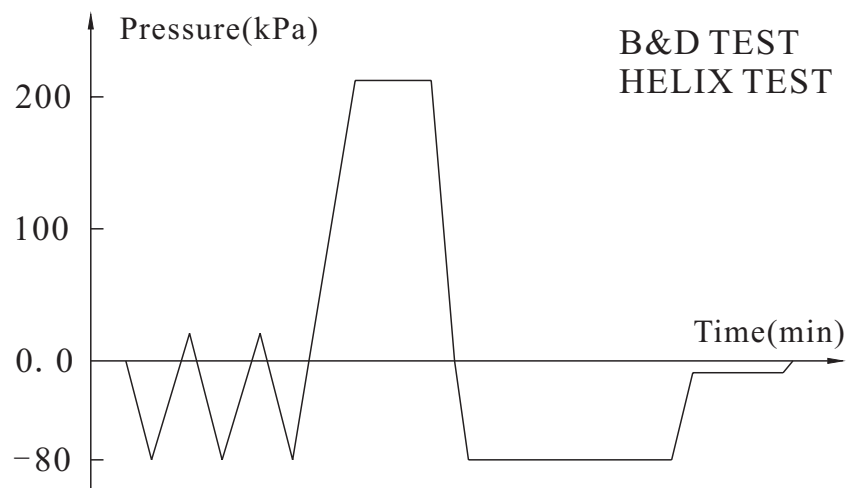
PROGRAM (CLASS B)	Temperature (°C)	Pressure (kPa)	Holding time (min)	Total time (min)	TYPE	Max. Load (kg)	Max. Load per tray (kg)
SOLID	134	210	4	14–30	Unwrapped solid material	4.00	1.20
	121	110	20	30–45			
LIQUID (Optional)	134	210	10	30–55	Liquid	1.00	0.30
	121	110	30	35–60			
WRAPPED	134	210	4	30–55	Unwrapped solid material	3.50	1.10
	121	110	20	35–60	Single-wrapped solid or hollow material	3.50	1.10
TEXTILE (Optional)	134	210	8	30–45	Unwrapped porous material	1.00	0.30
					Single-wrapped porous material	0.75	0.20
					Dual-wrapped porous material	0.50	0.15
	121	110	30	30–50	Single-wrapped hollow material	3.50	1.00
					Dual-wrapped solid and hollow material	1.50	0.50
PRION	134	210	18	35–55	Unwrapped porous material	1.00	0.30
					Single-wrapped porous material	0.75	0.20
					Dual-wrapped porous material	0.50	0.15
					Single-wrapped hollow material	3.50	1.00
					Dual-wrapped solid and hollow material	1.50	0.50
DRYING (Optional)	—	—	—	1–20	—	—	—
B&D TEST	134	210	3.5	22–35	—	—	—
HELIX TEST	134	210	3.5	22–35	—	—	—
VACUUM TEST	—	—	—	15–20	—	—	—

The time required for sterilizer to be ready for routine use after the power is switched on less than 5 minutes.

The max. temperature of the 134°C sterilization cycle is 137°C

The max. temperature of the 121°C sterilization cycle is 124°C



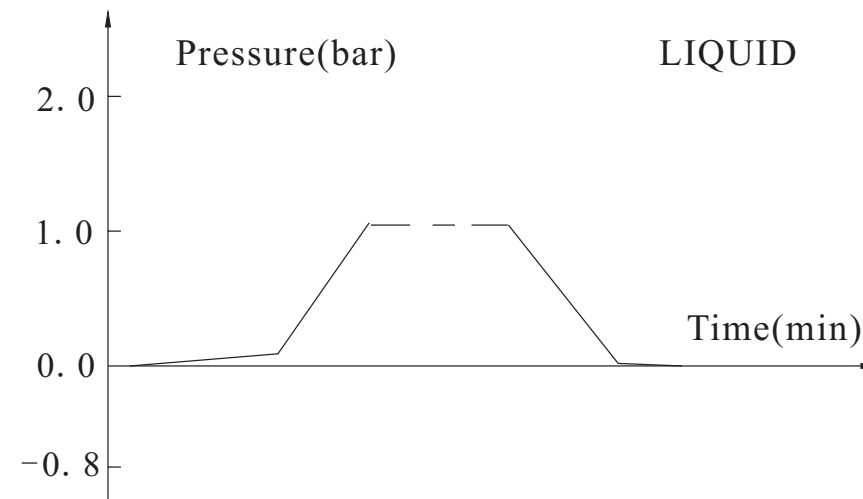
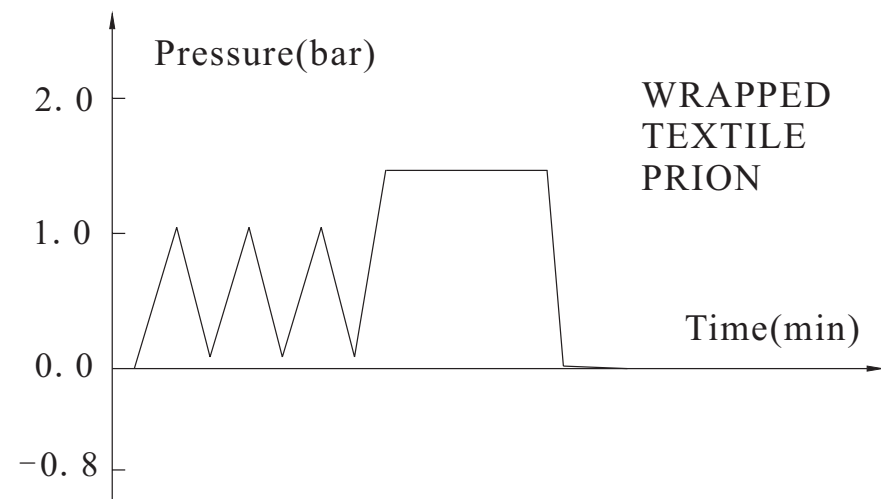
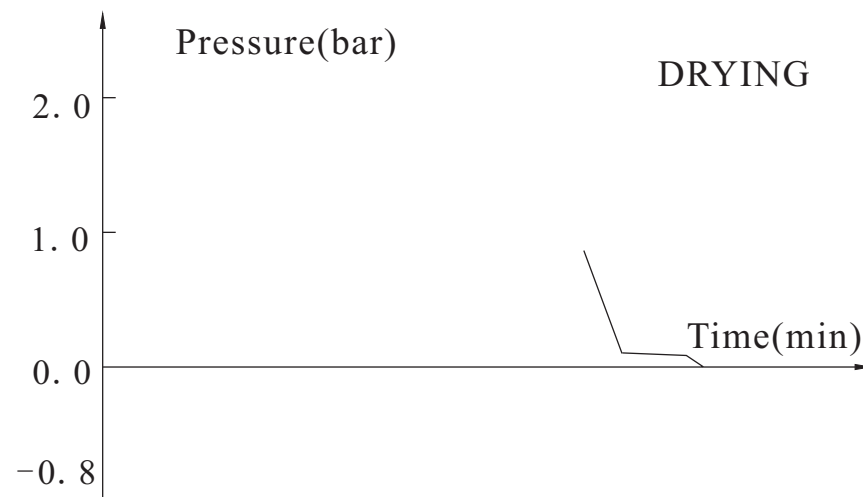
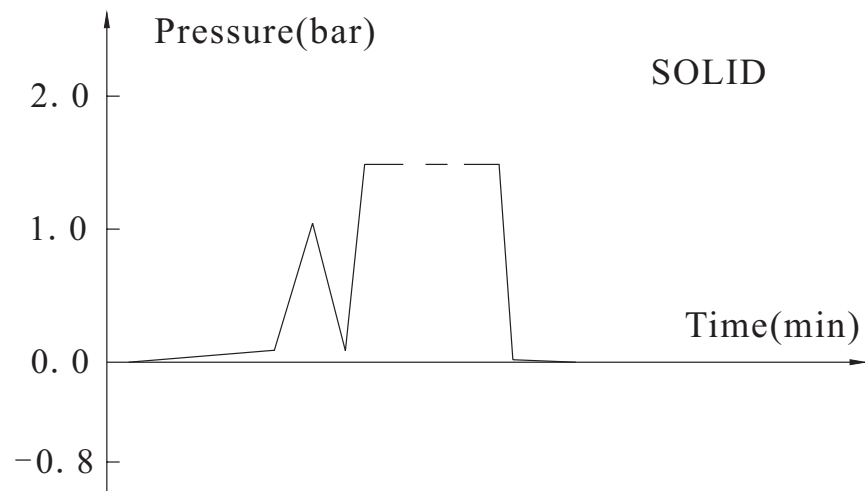


PROGRAM (CLASS B)	Temperature ($^{\circ}\text{C}$)	Pressure (kPa)	Holding time (min)	Total time (min)	TYPE	Max. Load (kg)	Max. Load per tray (kg)
SOLID	134	210	4	14-30	Unwrapped solid material	4.00	1.20
	121	110	20	30-45			
LIQUID (Optional)	134	210	10	30-55	Liquid	1.20	0.40
	121	110	30	35-60			
WRAPPED	134	210	4	30-50	Unwrapped porous material	4.00	1.20
	121	110	20	35-55	Single-wrapped solid or hollow material	3.00	1.00
TEXTILE (Optional)	134	210	8	30-45	Unwrapped porous material	1.00	0.30
					Single-wrapped porous material	0.75	0.20
					Dual-wrapped porous material	0.50	0.15
	121	110	30	30-50	Single-wrapped hollow material	3.00	1.00
					Dual-wrapped solid and hollow material	2.00	0.75
PRION	134	210	18	35-55	Unwrapped porous material	1.00	0.30
					Single-wrapped porous material	0.75	0.20
					Dual-wrapped porous material	0.50	0.15
					Single-wrapped hollow material	3.00	1.00
					Dual-wrapped solid and hollow material	2.00	0.75
DRYING (Optional)	—	—	—	1-20	—	—	—

The time required for sterilizer to be ready for routine use after the power is switched on less than 5 minutes.

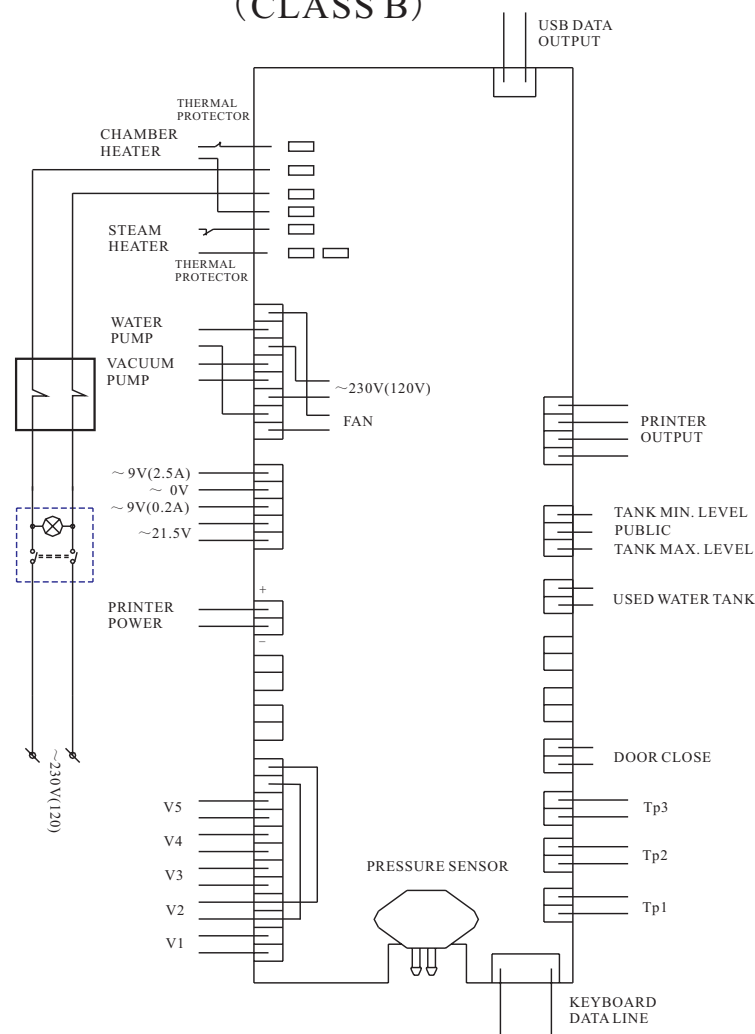
The max. temperature of the 134°C sterilization cycle is 137°C

The max. temperature of the 121°C sterilization cycle is 124°C



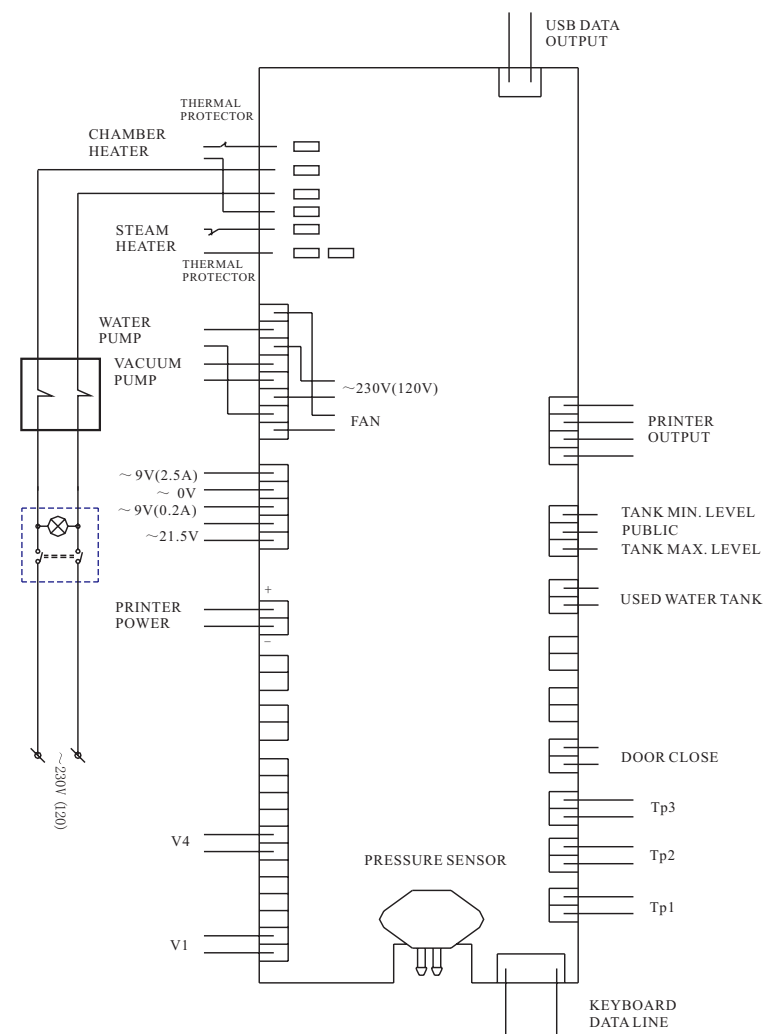
APPENDIX 3

ELECTRICAL DRAWING (CLASS B)



TP1: Steam generator temperature sensor
 TP2: Inner temperature sensor
 TP3: Temperature sensor of chamber wall
 V1: Air release valve V4: Water release valve
 V2: Air filter valve V5: Vacuum pump valve
 V3: Water pump valve

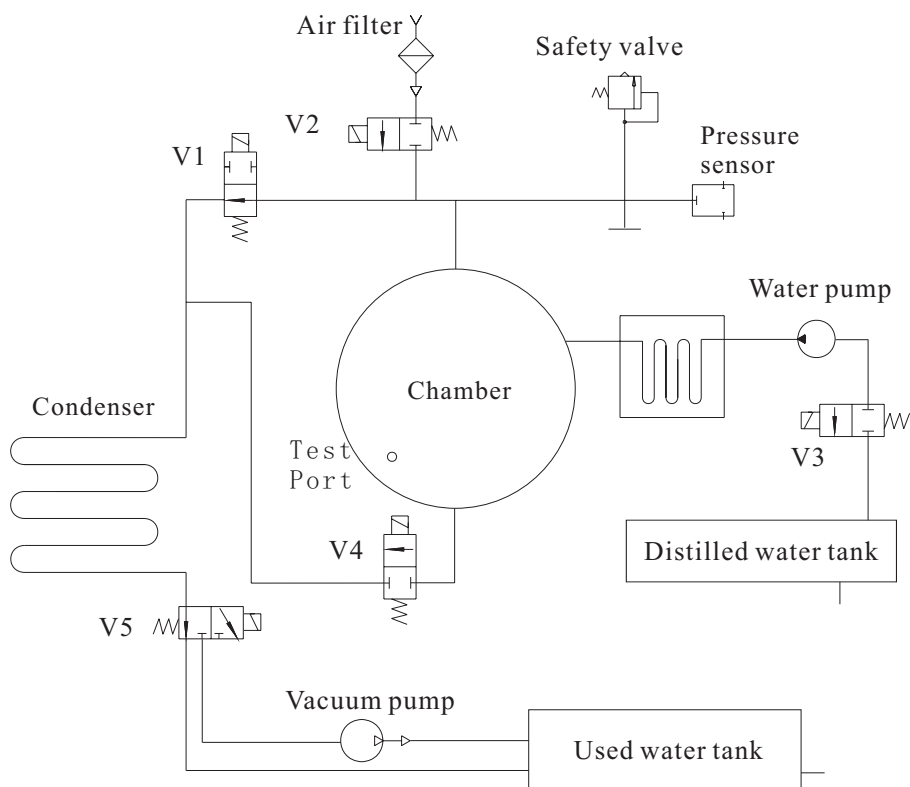
ELECTRICAL DRAWING (CLASS N)



TP1: Steam generator temperature sensor
 TP2: Inner temperature sensor
 TP3: Temperature sensor of chamber wall
 V1: Air release valve
 V4: Water release valve

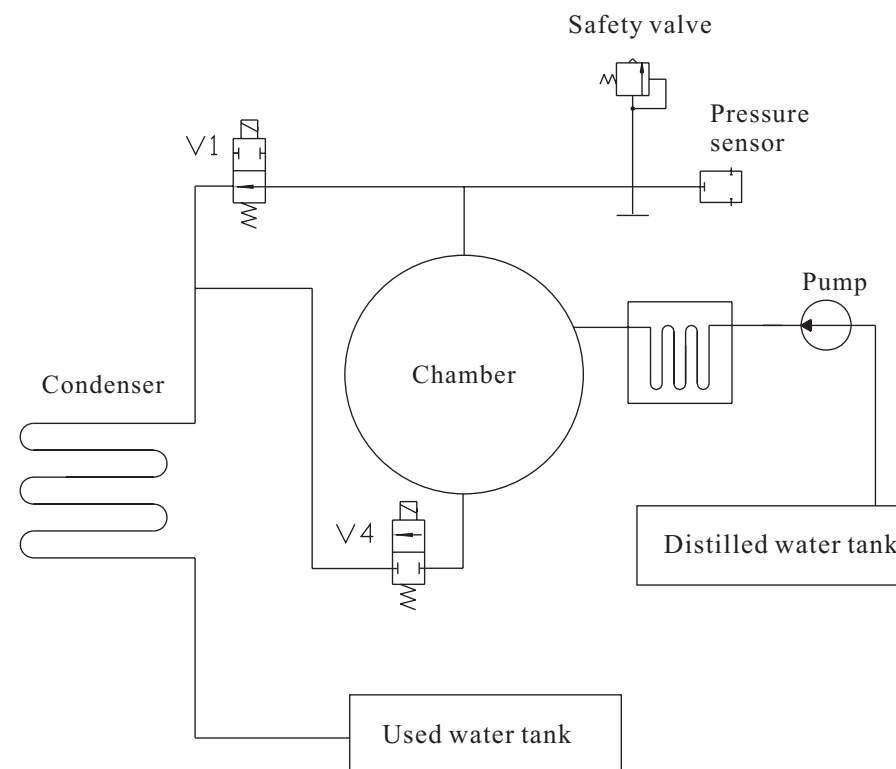
APPENDIX 4

HYDRAULIC DRAWING (CLASS B)



- V1: Air release valve
- V2: Air filter valve
- V3: Pump valve
- V4: Water release valve
- V5: Vacuum pump valve

HYDRAULIC DRAWING (CLASS N)



- V1: Air release valve
- V4: Water release valve