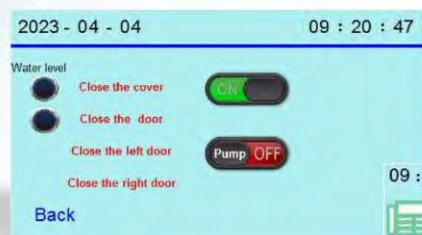




MEDIAPREP AUTOMATIC MEDIUM PREPARATION INSTRUMENT

High-quality media is the core of all kinds of biological culture in today's laboratories. Many follow-ups work depends directly on the quality of the medium. An efficient preparation process is also important, which not only reduces laboratory labor costs, but also frees researchers from tedious and repetitive tasks. The MEDIAPREP preparator Automated Media Reader is flexible – ready to allow you to quickly sterilize and prepare high quality media. This minimizes the space required to store the finished petri dish, eliminates the management of the petri dish storage, and ensures high quality media uniformity. It can quickly and gently sterilize the medium and accurately monitor and control the time, temperature, pressure and other parameters in the sterilization process, so as to ensure that all sterilized products have the same high quality, its intuitive graphical interface and the programming function makes it easy for everyone to operate the instrument.

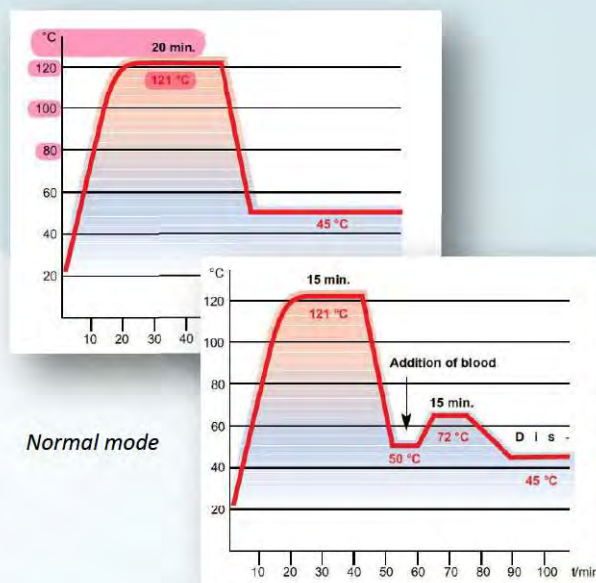
MEDIAPREP preparator can be quickly prepared for sterilization, placed in a sterilizer, and filled with water in a “water jacket system” (sleeve water between the sterilizer and the sterilizer cavity for efficient heat transfer), added to the medium Raw materials, ready to start the sterilization process. The medium can be suspended and dissolved directly in MEDIAPREP preparator. Strong magnetic stirring ensures uniformity of mixing in the inner chamber and prevents condensation. The medium can be pre-dissolved in WATER BATH mode prior to sterilization. At the same time, an intuitive graphical interface makes it easy to operate without specially trained personnel. Users can customize multiple sterilization procedures, such as sterilization temperature, time, and dispensing temperature.



❖ OPERATING MODE

It has 2 main working modes and 2 additional modes to choose from, and the parameters can be set by yourself.

1. Standard mode: Prepare standard medium, or high sensitivity medium. Sterilization temperature/time and dispensing time can be set.
2. Chocolate Agar Mode: A special 2-step preparation procedure for preparing complex media. After one sterilization, nutrients such as blood may be added through the feeding port, and then the temperature is raised twice.
3. Water bath mode: Dissolve the medium at 30 – 80 °C before formal sterilization. Glassware can be placed in the sterilizer and the liquid in the glassware can be heated in a water bath.
4. Sterilization mode: When sterilization mode is enabled, it can be used as a common table sterilizer to sterilize a small number of test tubes, flasks and other glassware.



❖ MEDIUM STERILIZATION

MEDIAPREP preparator ensures fast and gentle preparation of standard and highly sensitive media. The efficient heating and cooling system plus uniform agitation minimizes the thermal stress on the medium and ensures the nutrient of the medium.

❖ HIGHLY SAFE OPERATION

Before the start of sterilization, there will be a program to automatically check the air tightness of the whole system, for example, whether the sealing ring of the lid is intact, which can prevent the medium from suddenly leaking during the sterilization process and cause pressure relief.

The MEDIAPREP preparator is equipped with 4 independent temperature/pressure detectors to ensure a high level of safety for the user and the working environment. It is equipped with an independent over-voltage safety protection device to automatically relieve pressure when the electronic detection system fails.

❖ RAPID HEATING

Efficient heating elements ensure rapid heating of the medium. This can reduce thermal stress and ensure the nutrient of the medium. The temperature and pressure controlled exhaust system ensures vapor saturation in the chamber, ensuring complete sterilization of the medium.

Chocolate agar pattern



Heating element



Magnetic bar

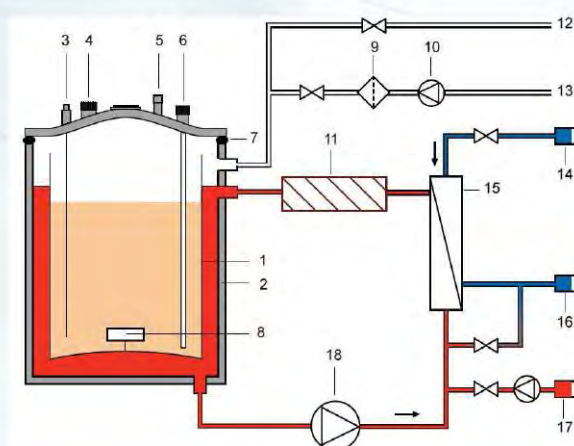
❖ RELIABLE STERILIZATION

Equipped with a powerful magnetic stirrer, the mixing speed and direction can be adjusted to ensure that the medium with different consistency can be stirred evenly. The Pt-1000 temperature probe and various operating parameters controlled by the microprocessor ensure complete and reliable sterilization results.

❖ RAPID COOLING

Rapid cooling system uses an efficient plate heat exchanger. The cooling water system and sterilization chamber are internally isolated, which prevents the cooling water from contaminating the medium. Built-in pressure maintenance system prevents the boiling of the medium due to pressure drop during the cooling process, resulting in a fast and gentle cooling.

❖ WORKING DIAGRAM



- | | |
|-----------------------------|------------------------|
| 1 Media cuvette | 2 Sterilization vessel |
| 3 Temperature probe | 4 Adding port |
| 5 Overpressure safety valve | 6 Dispense port |
| 7 Lid seal | 8 Magnetic stirrer bar |
| 9 Filter (0.25um) | 10 Pressure pump |
| 11 Flow heater | 12 Air outlet |
| 13 Air inlet | 14 Cooling water inlet |
| 15 Heat exchanger | 16 Water outlet |
| 17 Coupling water inlet | 18 Circulation pump |



Inner material quality SS



Sterilize the sample port with a flame gun



Connect the dispensing tube to the dispensing port



❖ SIMPLE DISPENSING

The large auxiliary material addition port can easily and safely add various additives such as antibiotics, blood, growth factors and the like. The automatic simultaneous sterilization process of the dispensing port eliminates the risk of media contamination during the dispensing process. Special cavity design and dispensing system minimizes "residual" and maximizes lab costs.

MEDIAPREP preparator can be quickly and easily connected to a fully automated media plate dispenser or a manual dispensing peristaltic pump. It can also be applied to containers of various other shapes, such as squares, flasks or flasks.



❖ STERILIZATION DATA RECORD

MEDIAPREP preparator provides tools that are needed for data logging, including sterilization parameters, work status, etc., to support long-term data storage.

❖ CLEANING AND MAINTENANCE

The built-in cleaning program automatically sterilizes chambers, pipes and valves. High temperature interlayer water can be discharged at the end of the process to dissolve and eliminate residual media. This allows all pipes and components in the entire machine to be sterilized, providing a good environment for the next use.



❖ SAFETY

- Unique lid lock design, dual control of temperature and pressure.
- When temperature higher than 80°C and pressure higher than 50 mbar, the outer cover cannot be opened and automatically locked;
- When temperature higher than 50°C and pressure higher than 50 mbar, the upper cover cannot be opened, and the automatic lock ensures that the cover will not accidentally open during operation;
- Over-temperature protection 130°C, when the temperature exceeds the set temperature by 2.5°C, it will automatically warn, and the power will be cut off automatically if the temperature exceeds the temperature. The open pressure is 1.7bar safely and the built-in safety alarm will not accidentally hurt the operator.
- Pressure container certificated.



❖ TECHNICAL PARAMETERS

MODEL	MEDIAPREP-12	MEDIAPREP-30
Inner bucket capacity	12L	30L
Chamber capacity	18L	45L
Picture		
Chamber size	300mmx260mm (D*H)	300mmX640mm
Inner Bucket size	260mmx222mm (D*H)	260mmX 600mm
Sterilization temp.	70 ° C ~ 130 ° C design temp. 140 ° C	70 ° C ~130 ° C design temp. 140 ° C
Dispensing temp.	25 ° C ~ 80 ° C	25 ° C ~ 80 ° C
Water bath temp.	30 ° C ~ 80 ° C	30 ° C ~ 80 ° C
Max working pressure	2.5 bar	2.5bar
*Design pressure	4 bar	4bar
Cavity sterilized water	• Deionized pure water • Auto water supplement (pressure not less than 1bar) • high and low water level alarm	
Cooling water port	• 2", diameter 12 pagoda joint	
Circulating water	• Tap water (pressure not less than 1bar)	
Drainage port	• 2", diameter 12 pagoda joint	
Temperature accuracy	0.1 ° C	0.1 ° C
Temperature offset	0.5 ° C	0.5 ° C
Time setting accuracy	1 minute	1 minute
Sterilization pot material	1.4301/1.4305 similar to SS316	1.4301/1.4305 similar to SS316
Dispense port	2 pcs, can adapt to a variety of sub-assembly requirements one of which can also be used for aseptic addition of materials	
Dispensing hose	ID 6mm thickness 2mm	ID 6mm thickness 2mm
Material feeding port	Diameter 32mm	Diameter 32mm
Stirring	Magnetic stirring 120 to 240 rpm adjustable	Magnetic stirring 0 to 120 rpm adjustable
Pressure supplement	Complementary pressure water cooling, maintain tank pressure when rapidly temperature cool down	
Heating power	3.6 KW	6.6 KW
Power supply	AC 220-240V, 50/60Hz, 20A	AC 3p 380-420V, 50/60Hz, 32A
Dimensions	550*700*545 (L*W*H) mm	550*700*975 (L*W*H) mm
Packing size	1170*870*810 (L*W*H) mm	1170*870*1230 (L*W*H) mm
Weight (NW/GW)	111 kg / 160kg	135kg / 175kg

MODEL	MEDIAPREP-45	MEDIAPREP-60
Load capacity	45L	60L
Chamber capacity	62L	87L

		
Chamber size	400 x 480mm	400 x 685mm
Inner bucket size	380 x 440mm	380 x 640mm
Sterilization temperature	90-135°C design temperature 147°C	90-135°C design temperature 147°C
Packing temperature	35-80°C	35-80°C
Water bath temperature	0-100°C	0-100°C
Temperature accuracy	0.1°C	0.1°C
Temperature offset	1°C	1°C
Time setting accuracy	1 minute	1 minute
Maximum working pressure	2.5bar	2.5bar
Design pressure	3.5bar	3.5bar
Sterilized water in the cavity	Deionized pure water can automatically feed water (pressure not less than 1bar) Alarm for high and low water levels	
Cooling water interface	2 points inner wire, diameter 12 pagoda joint	
Circulating water	pressure is not less than 1bar tap water	
Drainage interface	2 points inner wire, diameter 12 pagoda joint	
Sterilizer material	S31603	
Dispensing ports	2 pcs adapt to various dispensing requirements one of them can also be used for aseptic addition of materials	
Dispensing hose	inner diameter 6mm thickness 2mm	
Material feeding port	diameter 32mm	
Stirring	Magnetic stirring Speed is 0-240rpm, adjustable	
Cooling system	supplementary pressure water cooling system can maintain the cavity pressure during rapid cooling	
Temperature sensor	flexible PT-100 temperature probe in the medium preparation chamber and place it anywhere in the chamber	
Heating power	15KW	15KW
Power requirements	3×380-420V, 50/60Hz, 40A	3×380-420V, 50/60Hz, 40A
Dimensions (H*L*W)	925 ×670 ×790 mm	1120 ×675 ×790 mm
Net weight	160kg	180kg

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