

Medium Preparation & Filling System





About us

Innova Bio-Meditech is one of the professional solution provider of laboratory and medical devices. Firmly committed to our mission of “sharing innovative bio-meditech solutions with the world”, we are dedicated to innovation in the fields of Biology Project, Life Science, Pharmacy Industry and Medical Treatment.

Innova Bio-Meditech possesses a sound distribution and service network with business partners in North and Latin America, Europe, Africa and Asia-Pacific etc. We have built up a well established R&D, manufacture network with 3 centers in Qingdao, Shanghai and Suzhou. Inspired by the needs of our customers, we adopt advanced technologies and transform them into accessible innovation. This means constant effort and research, in order to more fully understand the developments of the market, INNOVA produce constantly upgraded product ranges by adding new products year after year.

The passion for science

Contents

<i>Automatic culture medium preparation system</i>	<i>01</i>
<i>Automatic culture media dispenser</i>	<i>05</i>
<i>Culture Media dispenser</i>	<i>07</i>

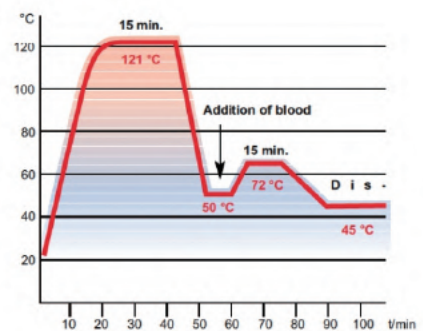
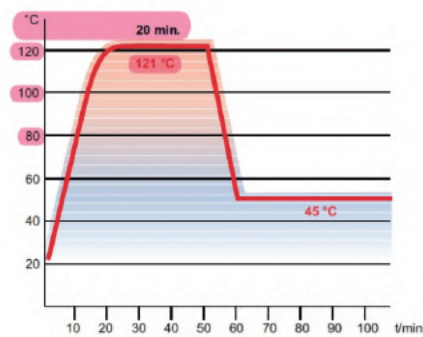
Automatic culture medium preparation system

INNOVA MediumPre series automatic medium preparation instrument is suitable for preparing all kinds of aseptic medium in laboratory.



Working mode

Two main operation modes for media preparation, plus two extra modes can be selected and the parameters set to your needs:



- STANDARD mode: For the preparation of standard and highly sensitive culture media. Sterilization temperature/time and dispensing temperature can be set.
- CHOCOLATEAGAR mode: A special two-step program that allows the preparation of complex media. After the first sterilization phase, supplement, e.g. blood, can be added through the adding port. Subsequently, a second heating phase will be performed.
- WATER BATH mode: the culture medium was dissolved 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.
- AUTOCLAVE mode (MediumPre 10 only): After the autoclave mode is enabled, it can be used as an ordinary desktop sterilizer to sterilize a small number of test tubes, flasks and other glassware.

Medium sterilization

MediumPre ensures fast and gentle preparation of standard and highly sensitive media. Efficient heating and cooling system combined with uniform stirring minimizes the thermal stress on the culture medium and ensures the nutrition of the culture medium.



- The inner chamber is made of high-quality stainless steel



- Sterilize the feeding port with a flame gun



- Sterilize the dispensing port with a flame gun



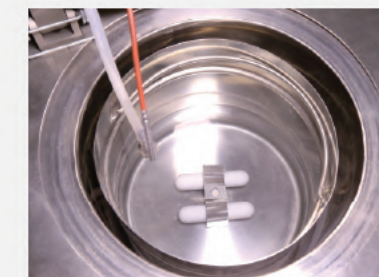
- Connect dispensing pipe to the dispensing port

Fast heating



Powerful heating elements permit fast media processing. This minimizes thermal stress and ensures high fertility of your culture media. Pressure and temperature controlled deaeration guarantees saturated steam in the vessel - an absolute must for complete sterilization.

Reliable sterilization



The large and strong magnetic stirrer with adjustable speed and reversing rotation direction ensures homogenous media preparation over a wide viscosity range. A Pt-100 temperature probe and microprocessor control of all relevant process parameters allow reliable and complete sterilization of culture media.

High operational safety

Before the sterilization starts, there will be a program to automatically check the airtightness of the whole system, for example: whether the sealing ring of the pot cover is intact, which can avoid the pressure relief caused by the sudden air leakage of the medium during the sterilization process, in addition, MediumPre is equipped with 4 independent temperature/pressure detectors to ensure the high safety of users and working environment. Equipped with an independent overvoltage safety protection device, when the electronic detection system fails, the pressure will be automatically released to ensure safety.

Rapid cooling

Rapid cooling is enabled by an efficient plate heat exchanger. The spatial separation of the cooling water system and the sterilization chamber makes it virtually impossible that culture media will get contaminated by cooling water. The built-in support pressure system prevents a delay in boiling during the rapid cool down phase and thereby allows an extraordinary fast and gentle cooling.

Sterilization data record

MediumPre provides tools needed for data recording, including sterilization parameters, working status, etc., to support long-term data storage.

Cleaning and maintenance

The built-in cleaning program can automatically sterilize and clean the cavity, pipes and valves. High temperature interlayer water can be discharged at the end of the program, dissolve and eliminate the residual medium. This sterilizes all the pipes and parts in the whole machine and provides a good environment for next use.

Technical Parameter

Model	MediumPre 12	MediumPre 30	MediumPre 45	MediumPre 60
Capacity	12L	30L	45L	60L
Chamber size (Ø×H)	300×260mm	300×640mm	400×480mm	400×685mm
Bucket size (Ø×H)	260×220mm	260×600mm	380×440mm	380×640mm
Design temperature	147°C			
Sterilization temperature	70°C-130°C		90-135°C	
Dispensing temperature	25°C-80°C		35-80°C	
Water bath temperature	30°C-80°C		0-100°C	
Temperature accuracy	0.1°C		0.1°C	
Temperature deviation	0.5°C		1°C	
Time setting accuracy	1min		1min	
Max. allow pressure	2.5bar			
Design pressure	3.5bar			
Chamber sterilized water	Deionized water, can automatically enter the water, pressure ≥ 1bar, with high and low liquid level alarm			
Circulating water	Tap water, pressure≥ 1bar			
Sterilization chamber material	S31603			
Dispenser port	3	2	2	2
Feeding port	1	1	1	1
Stirrer speed	120, 240rpm quick selectable; 0-240rpm stepless adjustable			
Heating power	3.6kW	6.6kW	15kW	
Power supply	220-240V, 50/60 Hz, 20A	3×380-420V, 50/60Hz, 32A	3×380-420V, 50/60Hz, 40A	
Dimensions (W×D×H)	555×700×550mm	555×700×980mm	670×790×920mm	670×790×1120mm
Weight	85kg	122kg	160kg	180kg

Automatic culture media dispenser

INNOVA AutoFill series automatic culture media dispenser has a compact design, a high degree of automation, and a small footprint.



Main Features

- Optional printer module to print production date, validity period, batch number and other information.
- Double pump system for preparing blood culture dishes.
- Equipped with a system calibration program, the calibration is easy to operate and ensures accurate dispensing volume.
- Built-in 254nm UV lamp, independent disinfection of the dispensing area, low risk of pollution, automatic reminder when the life of the UV lamp expires.
- Large-size touch screen, easy to operate, simple and intuitive to set parameters.
- Petri dishes and turntables can be disassembled for cleaning and disinfection.
- The curved spring plate of the culture dish holder makes loading and unloading the culture dish easier and faster.
- With fault alarm function.



AutoFill 400



AutoFill 800

Technical Parameter

Model	AutoFill 400	AutoFill 800
Flow rate	0.2~1120ml/min (25#), 0.3~1780ml/min (17#)	
Dispensing accuracy	About 1% (20ml)	
Standard dispensing speed	About 400 pieces/h (dispensing volume 20ml, petri dish diameter: 90mm)	About 800 pieces/h, double pump system (dispensing volume 20ml, petri dish diameter: 90mm)
Petri dish holder	Standard 25 pieces/grid, 9 grids, up to 175 petri dishes (diameter 90mm) can be placed at one time,	Standard 40 pieces/grid, 9 grids, up to 280 petri dishes (diameter 90mm) can be placed at one time, and 60mm diameter petri dish holder is optional
Dispensing plate	Standard 3 grids (petri dish diameter 90mm), dispensing plate and petri dish holder must be used together	Standard 6 grids (petri dish diameter 90mm), optional dispensing plate for 60mm petri dish, dispensing plate and petri dish holder must be used together
Optional	/	Semiconductor refrigeration module is optional to cool the medium
	/	Printer module can be optional to print the production date, expiration date, batch number etc.
Power supply	220V, 50/60 Hz, 4A	
Ambient temperature	25℃	
Ambient humidity	< 90%	
Dimensions (WxDxH)	510x725x645mm	640x1000x720mm
Weight	42kg	46kg

Culture Media dispenser

INNOVA MFill 17 culture media dispenser is an electronic peristaltic pump liquid separation system for precision liquid transportation, which is specially designed for the accurate measurement and dispensing of various reagent solutions (culture medium, buffer, diluent, etc.) in the microbiology laboratory.



Main Features

- Compact and lightweight design, easy to move and save laboratory space.
- 4.3" TFT precision resistance full-color touch screen and 32-bit ARM microprocessor.
- Automatic recognition of foot switch, filling with timing and infrared sensing function.
- Four innovative designs: flow intelligent calibration, quantitative correction, 1°- 720° backsuction angle setting, buffer delay.
- Adopt the spring-open liquid separation pump head, which can quickly replace the liquid separation pipes of different specifications.
- The filling needle with anti-drip design can meet the sanitary requirements and protect every drop of your reagent.
- It is equipped with liquid separation pipes with different diameters to ensure accurate liquid separation accuracy while obtaining a variety of sub-loading ranges.
- The anti-drip separating head can be used to separate and pack various microbial reagents such as culture medium, buffer and diluent.
- Working status, setting parameters, flow data and machine configuration are all displayed on the screen, easy to operate.
- The membrane button controls the start/stop, and the external controller can also be connected for remote start/stop control.
- The design of separating the liquid pipe from the pump makes the fluid only pass through the sterilized liquid separation pipe to eliminate the possibility of pollution.

Technical Parameter

Model	MFill 17
Liquid separation mode	≥20
Error	≤±1.0%
Single maximum dispensing volume	3000mL
Flow rate	0.6mL-7000mL/min
Dispensing error	<1%
Dispensing pipe inner diameter	1.6mm, 2.4mm, 3.1mm, 4.8mm, 6.4mm, 7.9mm (optional)
Working mode	continuous filling, timed filling, quantitative filling, duplicate filling and weighing filling.
Dimensions (WxDxH)	15.5 × 31 × 24mm
Weight	5.5kg
Power supply	220V