RAYPA

Leading
Lab Technologies

Sterilization

MEDIA PREPARATORS

AE-MP SERIES

EFFICIENT SOLUTION
FOR CULTURE MEDIA
PREPARATION

Media Preparators

AE-MP streamlines the operative workflow for microbiology and plant tissue culture laboratories. In one single device it is integrated the preparation, sterilization and dispensation of high quality culture media with outstanding batch to batch reproducibility. **AE-MP** autoclaves are designed to reduce total run time and deliver high volumes of sterile culture media thanks to its efficient heating system and fast cooling phase at the end of the sterilization process.

Cleaning of vessel and dispensing lines

The media vessels can be removed easily thanks to integrated handle grips. Dispensing lines can be cleaned before every dispensing cycle with steam pulses reaching all the length of the line.

Accurate dispensation

Once the media is prepared and sterilized it is dispensed with an integrated peristaltic pump with the aid of a foot pedal. It is possible to program a delay between dispensation pulses to facilitate repeated filling operations with one singe action.

F_0 value sterilization management

The sterilization of the culture media is managed by the microprocessor by means of temperature and time settings or by means of F_0 value.
The heart probe inserted in the culture media manages the sterilization cycles with accurate temperature readings.

INTENDED USE

+ MICROBIOLOGY
+ PLANT TISSUE CULTURE LABORATORIES

F_0 VALUE

The sterilization is managed by means of a flexible heart probe with precise temperature readings directly taken in the culture media.

The microprocessor uses these readings to calculate progression of F_0 value until a complete sterilization is achieved.

The sterile media is then dispensed with a built-in peristaltic pump with programmable settings with the aid of a foot pedal.

BENEFITS

Increase efficiency of microbiology and plant tissue culture laboratories

Accurate control of sterilization with flexible heart probe

Dispensed with an integrated peristaltic pump

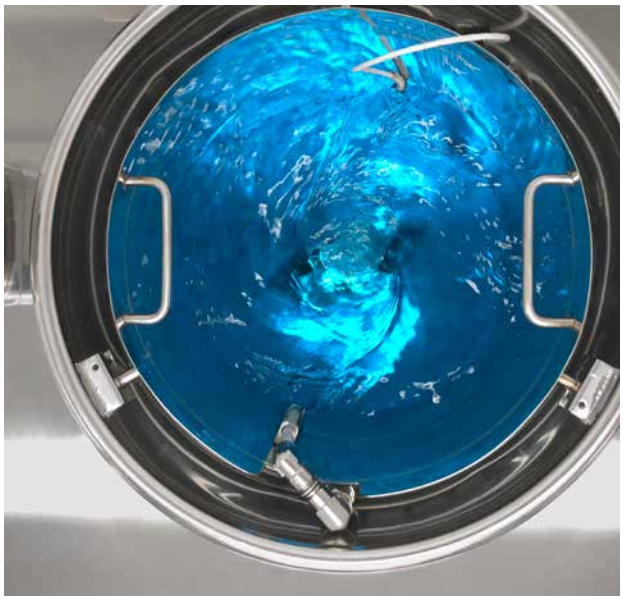
Cleaning throughout the length of the dosing line with steam pulses

Automatic water level control and optional automatic water feeding

Precise dosing of control media with delay time

Management of sterilization with F_0 value or temperature and time settings

Included:
- ✔ **Heart probe**
- ✔ **Peristaltic pump**
- ✔ **3 dosing tubes** (4,8 - 6,4 - 8 mm)



Accesories

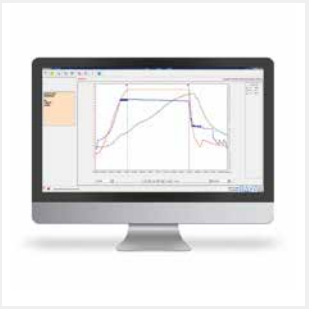
DW-MP*
Dosing station for culture media
* For AE-20/40/60-MP counter pressure system is required (ref. CP-MP)

IT/TS
Integrated printer

TABLE-MP
Stainless steel table

TUB-DOSIF
Dosing tubes with nozzle:
3,2 - 4 - 4,8 - 6,4 - 8 mm

CAB-2
Additional peristaltic pump head



SW8000
External software for data visualization and report with results

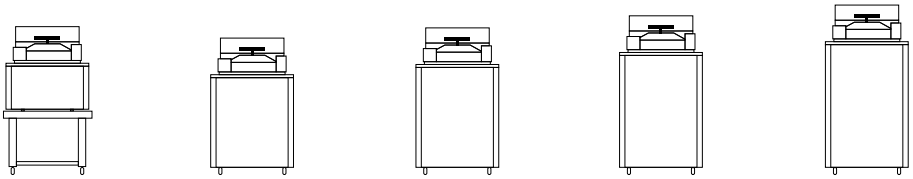
KLL-MP
Set automatic filling

PRENSACLAV
For calibration

Dispensing capacity chart

		AE-20 MP	AE-40 MP	AE-60 MP	AE-80 MP	AE-100 MP
Dispensing system	Ø Tube (mm)	Dispense speed				
SINGLE PERISTLATIC PUMP (95% potencia)	3,2	7 ml/s				
	4	9 ml/s				
	4,8	11 ml/s				
	6,4	15 ml/s				
	8	20 ml/s				
DOUBLE PERISTLATIC PUMP (95% potencia)	3,2	12 ml/s				
	4	15 ml/s				
	4,8	18 ml/s				
	6,4	25 ml/s				
	8	33 ml/s				
COUNTER-PRESSURE	6,4	Optional system			65 ml/s (0,6 bar)	
					76 ml/s (0,7 bar)	
					87 ml/s (0,8 bar)	
					94 ml/s (0,9 bar)	

TECHNICAL DATA



General data

	AE-20 MP[1]	AE-40 MP	AE-60 MP	AE-80 MP	AE-100 MP
Media preparation capacity min - max	2 - 18 L	3 - 37 L	3 - 57 L	5 - 78 L	5 - 97 L
Chamber dimensions Ø x H	320 x 350 mm	320 x 500 mm	320 x 700 mm	420 x 500 mm	420 x 700 mm
Power[2]	3000 W	6000 W	9000 W	12000 W	15000 W
Electrical voltage[3]	230 (1P+N+E) V	400 (3P+N+E) V	400 (3P+N+E) V	400 (3P+N+E) V	400 (3P+N+E) V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
External dimensions L x D x H	615 x 815 x 735 mm	615 x 815 x 1100 mm	615 x 815 x 1320 mm	755 x 935 x 1285 mm	755 x 935 x 1385 mm
Weight	95 Kg	165 Kg	180 Kg	250 Kg	295 Kg

[1] Included stainless steel table with casters. Ref. TABLE-MP, ext. dimensions L x D x H: 700 x 700 x 600 mm and weight: 19 Kg
[2] Consult overpowered equipments
[3] Ask for other voltages.

Preparation process data

Sterilization temperature	50 - 125 ºC
Dispensation temperature	25 - 80 ºC
Sterilization time	1 - 250 min
Maximum pressure	2,2 bar

Mechanical data

Cooling system	Cooling coil
Dispensation system	Integrated single peristaltic pump. Integrated double peristaltic pump (optional)
Stirrer	**Type:** Magnetic with double paddle
	Control: independent potentiometer on control panel
	Speed range: 50-200 rpm
Sterilization control system	Fully automatic microprocessor control of PT100 heart probe sensor and chamber temperature sensor. F0 value to control sterilization cycle
Purge system	Gravity displacement
Construction	**External case:** AISI 304
	Sterilization chamber and lid: AISI 316L
Lid gasket	Silicone gasket
Opening lid mode	Horizontal swiveling lid with blocking wheel
Casters[4]	4 casters (with brakes in two of them)

[4] For AE-20-MP, the 4 casters with brakes are installed in the stainless steel table (Ref. TABLE-MP)

Control data

External data transfer	Ethernet
	USB
Number of programs	50 programs (2 preset programs)
Programable autostart	Date and time
Screen	Colour Touch Screen 5"
Monitoring of sterilization parameters	Self control of obtained values (Tº) vs programmed values. Cycle is automatically interrupted if obtained values differ from programmed values
Pressure display	Pressure gauge on control panel

Safety features

- Door blocking systems with positive pressure
- Open door sensor
- Water level detector
- Safety valve
- Safety thermostat

Regulations

European standards and directives our equipments met are:

UNE-EN-ISO 9001:2015 Quality management system

EN-61010-1 Safety requirements for electrical equipment for measurement, control and laboratory use. Part 1: General requirements

EN-61010-2-040 Part 2-040: Requirements for laboratory autoclaves

EN-61326 Electrical equipement for measurement, control and laboratory use. EMC Requirements

AD 2000 Merkblatt Pressure vessels

2014/35/UE Low Voltage

2014/30/UE Electromagnetic Compatibility

2014/68/UE Pressure equipment

FIND OUT MORE

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