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"The process of scientific discovery is, in effect, a continual flight from wonder." Albert Einstein

# ELECTRICAL AUTOCLAVES FOR STERILIZATION

Wide range of electrically heated bench top and top loading autoclaves.Pressure range from 0.62 to 2 bar, Capacity: 1.5, 8, 12, 18, 20, 23, 25, 50, 80 and 150 litres.

Complies with the pressure and autoclave directives



#### **PRINCIPAL OF STEAM STERILIZATION:**

STERILIZATION IS THE PROCESS OF THE DESTRUCTION AND ELIMINATION OF ALL FORMS OF MICROBIAL LIFE, INCLUDING BACTERIA AND ITS SUB-Forms.

THE LABORATORY AUTOCLAVE CONSISTS OF A VESSEL IN WHICH STEAM FLOWS AT A HIGH PRESSURE WITH A STERILIZATION PURPOSE. SATURATED STEAM WILL IMMEDIATELY CONDENSE AND THUS RELEASING ITS HIGH EVAPORATION HEAT, WHICH IS IN FACT THE DESTRUCTIVE AGENT. IN ORDER THAT STERILIZATION WOULD BE EFFECTIVE, STEAM MUST BE SATURATED AND, CONSEQUENTLY, ALL THE AIR INSIDE THE VESSEL MUST BE PURGED BEFORE INITIALIZING THE PROCESS.

IN THE FOLLOWING PAGES J.P. SELECTA OFFERS AN EXTENSIVE RANGE OF AUTOCLAVES WITH A CHOICE OF ATMOSPHERIC PURGING OR VACUUM PURGING SYSTEMS. A CHOICE OF MICROPROCESSOR CONTROLLED SYSTEMS ARE OFFERED INCLUDING DRYING CYCLES AT THE END OF THE STERILIZATION CYCLE.



PRESOCIAN 

SUMMARY TABLE OF MODEL RANGE

C

PRESOCLAVE PLUS III 50 (mod. vertical) PRESOCLAVE PLUS III 80 (mod. vertical) PRESOCLAVE PLUS II 150 (mod. vertical) AUTESTER ST DRY PV-III 50 (mod. vertical) AUTESTER ST DRY PV-III 80 (mod. vertical) AUTESTER ST DRY PV-III 150 (mod. vertical) The printer can be built-in the autoclaves together with the control panel



### **QUICK OVERVIEW**

MODELS	Part No.	System DRY	Capacity litres	Temperature °C		essure bar	Power W	Control	Purge control	Туре
MICRO 8	4001745	NO	8	121 and 134	1	and 2	1000	Pressure thermostat	Manual	Vertical bench top
MED 12	4001756	NO	12	121 and 134	1	and 2	1800	Pressure thermostat	Atmospheric	Vertical bench top
MED 20	4001757	NO	20	121 and 134	1	to 2	2500	Pressure thermostat	Atmospheric	Vertical
PRESOCLAVE III 50	4001758	NO	50	115 to 134	0.6	2 to 2	3600	Electronic controller	Atmospheric	Vertical
PRESOCLAVE III 80	4001759	NO	80	115 to 134	0.6	2 to 2	3600	Electronic controller	Atmospheric	Vertical
PRESOCLAVE PLUS III 50	4001770	NO	50	115 to 134	0.6	2 to 2	3600	Electronic controller	Atmospheric	Vertical
PRESOCLAVE PLUS III 80	4001771	NO	80	115 to 134	0.6	2 to 2	3600	Electronic controller	Atmospheric	Vertical
PRESOCLAVE PLUS II 150	4002172	NO	150	115 to 134	0.6	2 to 2	7500	Electronic controller	Atmospheric	Vertical
AUTESTER ST DRY PV-B 12	4001737	YES	12	121 and 134	1	and 2	1800	Microprocessor	Purged vacuum	Horizontal bench top
AUTESTER ST DRY PV-B 18	4001734	YES	18	121 and 134	1	and 2	1500	Microprocessor	Purged vacuum	Horizontal bench top
AUTESTER ST DRY PV-B 23	4001735	YES	23	121 y 134	1	and 2	1700	Microprocessor	Purged vacuum	Horizontal bench top
MED 40 CLT	4002000	NO	40	105 to 125	0	to 1	6000	Electronic controller	Atmospheric	Vertical
AUTESTER ST DRY PV-III 25	4002420	YES	25	105 to 134	0.21	to 2	2510	Microprocessor	Purged vacuum	Horizontal bench top
AUTESTER ST DRY PV-III 50	4002516	YES	50	105 to 134	0.21	to 2	3600	Microprocessor	Purged vacuum	Vertical
AUTESTER ST DRY PV-III 80	4002519	YES	80	105 to 134	0.21	to 2	3600	Microprocessor	Purged vacuum	Vertical
AUTESTER ST DRY PV-III 150	4002518	YES	150	105 to 134	0.21	to 2	7500	Microprocessor	Purged vacuum	Vertical

# Autoclaves for sterilization "MICRO 8", "MED 12" and "MED 20"

PRESSURE REGULATOR THERMOSTAT OF 1 AND 2 bar. TEMPERATURES 121 °C AND 134 °C. VERTICAL DESKTOP MODELS. "MICRO 8" CAPACITY: 8 LITRES. "MED 12" CAPACITY: 12 LITRES. VERTICAL STAND MODEL "MED 20" CAPACITY: 20 LITRES.

# An economic alternative. Semiautomatics.

SAFETY:

**SAFETY VALVE: SAFETY PRESSURE: SAFETY THERMOSTAT:** 

PREVENTS THE PRESSURE WITHIN THE AUTOCLAVE OVERPASSING THE MAXIMUM SET LIMIT. DISCONNECTS POWER TO THE HEATER IN CASE OF OVERPASSING THE PRESSURE SET LIMIT. DISCONNECTS THE HEATING IN CASE OF OVERTEMPERATURE OR LACK OF WATER IN THE TANK. THERMALLY INSULATED LID MADE OF MOLDED THERMOPLASTIC.

#### **COMMON FEATURES**

CLEME





It comes complete with a stainless steel wire basket of Ø 22x14cm high. Part no. 1004771.

MODEL	Autor DESKTOP Features: su	MODEL	erilization "N	AED 12"	
Part No.	Capacity litres	Ø Height (usable) cm	Height/Width/Depth (exterior) cm	Power W	Weight Kg
4001756	12	24 26	46 38 38	1800	18
lt comes con	nplete with a stainles	ss steel wire basket of Ø	1 22x24cm high. Part no. 1	004772.	
	VERTICAL	STAND MODEL.	erilization "N RESSURE REGULATION C		
		Features: see	e page 56		

24 41 It comes complete with two stainless steel wire baskets of Ø 23x17 cm Part No. 1004773

Ø Height (usable) cm

Height/Width/Depth (exterior) cm

70 38 38

Weight Kg

41

Power W

2500

MODEL Part No.

4001757

Capacity litres

20

# Autoclaves for sterilization "Presoclave" 50 and 80 litres



MICROPROCESSOR TEMPERATURE AND CYCLE CONTROL AND ATMOSPHERIC PURGE. ELECTRONIC CONTROL OF TIME AND TEMPERATURE RANGE FROM 115 °C TO 134 °C. (0.62 TO 2 bar). CONFORMS TO APPARATUS PRESSURE REGULATION DIRECTIVES. VERTICAL MODEL: 50 AND 80 AND 150.

#### SAFETY:

13

12

10

SAFETY OVER PRESSURE VALVE: PREVENTS OVER PRESSURE ABOVE THE MAXIMUM SET LIMIT. SAFETY PRESSURE SWITCH: DISCONNECTS POWER TO THE HEATER IF THE UNIT EXCEEDS THE MAXIMUM PRESSURE LIMIT. SAFETY THERMOSTAT AND WATER LEVEL: DISCONNECT POWER TO THE HEATER IF INSUFFICIENT WATER OR OVER TEMPERATURE. SAFETY LID: PREVENTS THE LID BEING OPENED IF THE CHAMBER IS UNDER PRESSURE. SAFETY INSULATION: THERMALLY INSULATED LID.

# An economic alternative, semi-automatic

### **FEATURES**

TIT

External case made from stainless steel. INCOLOY stainless steel heater elements, hard waring, resistant to corrosion and high temperatures. RS-232 connection. External lateral probe port. Sterilization chamber and door made from stainless steel. Automatic purge to atmosphere

#### **CONTROL PANEL**

- 1. Pressure gauge.
- 2. Illuminated alarm indicator.
- 3. Illuminated indicator door open
- 4. Temperature display.
- 5. Time display
- 6. Temperature set pushbutton (range from 115 °C to 134 °C).
- 7. Pushbutton increase value.
- 8. Push button START
- 9. Push Button STOP
- 10. Push button Reduce value.
- 11. Push button select time, (range from 3' to 99').
- 12. Push button open lid.
- 13. Devaporization pushbutton.

MODELS	Part No.	Capacity litres	Ø Height (usables cm)	Height / Width / Depth (exterior cm)	Power W	Weight Kg
PRESOCLAVE III 50	4001758	50	30 70	117 48 62	3600	75
PRESOCLAVE III 80	4001759	80	40 62	119 58 72	3600	100

Does not include baskets and drums, order separately.

#### ACCESSORIES: AISI 304 Stainless steel wire baskets and drums. For Presoclave III 50, Part. no: 4001758. Capacity, 3 baskets Ø 25 and 20 cm. height. Part No. 1000495 For Presoclave III 80, Part. no: 4001759. Capacity, 2 baskets Ø 44 and 22 cm height. Part No. 1000780 Sterilization drum made from AISI 304 stainless steel. For Presoclave III 50, Part. no: 4001758. Capacity, 3 drum Ø 25 and 18 cm. height. Part No. 1002418 For Presoclave III 80. Part. no: 4001759. Capacity, 2 drum Ø 35 and 27 cm. height. Part No. 1002419 Detergent Bio-Sel. Water distillation unit especially for autoclaves. Purge microfilter. Part No. 4001221 **Printer** of continuous paper roll with print out of temperature, time and mode,

Part No. 4120113 (see page 64).





### **BACK VIEW:**

- 1. Safety valve.
- 2. Mains power.
- 3. Safety thermostat
- 4. Steam discharge and drainage outlet

**COMPLEMENTS** That needs to be factory installed: Pt100 second sensor only temperature reader. Part No. 4001219 (see page 63). Loading and unloading crane. Part No. 1002426 (see page 61).

# Autoclaves for sterilization "Presoclave PLUS" 50, 80 and 150 litres.



MICROPROCESSOR TEMPERATURE AND CYCLE CONTROL AND ATMOSPHERIC PURGE. ELECTRONIC CONTROL OF TIME AND TEMPERATURE RANGE FROM 115 °C TO 134 °C. (0.62 TO 2 bar). CONFORMS TO APPARATUS PRESSURE REGULATION DIRECTIVES. PROCESS REGISTRATION AND DOWNLOAD VIA USB. VERTICAL MODEL: 50, 80 AND 150 LITRES.

**SAFETY:** 

SAFETY OVER PRESSURE VALVE: PREVENTS OVER PRESSURE ABOVE THE MAXIMUM SET LIMIT. SAFETY PRESSURE SWITCH: DISCONNECTS POWER TO THE HEATER IF THE UNIT EXCEEDS THE MAXIMUM PRESSURE LIMIT. SAFETY THERMOSTAT AND WATER LEVEL: DISCONNECT POWER TO THE HEATER IF INSUFFICIENT WATER OR OVER TEMPERATURE. SAFETY LID: PREVENTS THE LID BEING OPENED IF THE CHAMBER IS UNDER PRESSURE. SAFETY INSULATION: THERMALLY INSULATED LID.

### An economic semi-automatic alternative

#### **FEATURES**

External case made from stainless steel. INCOLOY stainless steel heater elements, hard waring, resistant to corrosion and high temperatures.

# Process registration and download via usb.

External lateral probe port (only models 50 and 80 litres). Sterilization chamber and door made from stainless steel.

Automatic purge to atmosphere.

10 programs configurable by the user.

#### **CONTROL PANEL**

- 1. TFT touch screen with virtual push buttons.
- 2. Pressure gauge.
- 3. Push button open lid.



MODELS	Part No.	Capacity litres	Ø Height (usables cm)	Height / Width / Depth (exterior cm)	Power W	Weight Kg
PRESOCLAVE III 50	4001770	50	30 70	117 48 62	3600	75
PRESOCLAVE III 80	4001771	80	40 62	119 58 72	3600	100
PRESOCLAVE II 150	*4001772	150	50 70	118 80 95	7500	225

Does not include baskets and drums, order separately. Part No. 4001772 due to its consumption is manufactured for three-phase current at 230 V or 400 V to be specified.

ACCESSORIES: AISI 304 Stainless steel wire baskets and drums. For Presoclave III 50 Plus, Part. no: 4001770. Capacity, 3 baskets Ø 25 and 20 cm. height. Part No. 1000495 For Presoclave III 80 Plus, Part. no: 4001771. Capacity, 2 baskets Ø 36 and 28 cm, height, Part No. 1000496 For Presoclave II 150 Plus, Part. no: 4001772. Capacity, 2 baskets Ø 44 and 22 cm height. Part No. 1000780 Sterilization drum made from AISI 304 stainless steel. For Presoclave III 50 Plus. Part. no: 4001770. Capacity, 3 drum Ø 25 and 18 cm. height. Part No. 1002418 For Presoclave III 80 Plus, Part. no: 4001771. Capacity, 2 drum Ø 35 and 27 cm. height. Part No. 1002419 **Detergent Bio-Sel.** Water distillation unit especially for autoclayes. Purge microfilter. Part No. 4001221 Loading and unloading crane. Part No. 1002426 (see page 61).





#### **BACK VIEW:**

1. Safety valve. 2. Mains power. 3. Safety thermostat 4. Steam empty valve and Drain selector valve. 5. USB connector.

**COMPLEMENTS** That needs to be factory installed:

Pt100 second sensor only temperature reader. Part No. 4001219 (see page 63). Printer of continuous paper roll with print out of program, temperature, pressure, time and phase. Part No. 4002417

> Autoclaves 59

# Autoclaves for sterilization "Autester ST DRY PV III"

MICROPROCESSOR PROCESS CONTROL. AUTOMATIC VACUUM DRY AND PURGE "PREVACUUM" PROGRAMMABLE TEMPERATURE FROM 105 °C TO 134 °C (0.21 TO 2 bar). CONFORMS TO APPARATUS PRESSURE REGULATION DIRECTIVES. VERTICAL FLOOR STANDING MODEL: 50, 80 AND 150 LITRES.



CONFORMITY SAFETY FOR EQUIPMENT FOR LABORATORY USE -040 SAFETY FOR STERILIZER EQUIPMENT FOR LABORATORY USE Electromagnetic compatibility for equipment for laboratory use.

## **FEATURES**

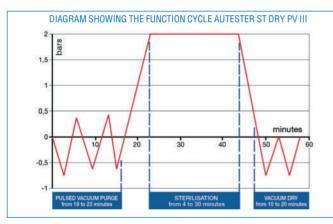
THE

Stainless steel exterior and top. Stainless steel lid. Lid, six closure point system. Pulsed vacuum system and atmosphere purge. External steam generator (except 150 litres autoclave). Water reservoir for clean water for the steam generator boiler. External water connection if required. 6 function modes. RS 232 for PC parameters printing (back side). Printer output. USB output for PEN-DRIVE data logging. Connection for a second temperature sensor. 10 customer set programs.

Lateral external probe port (except 150 litres autoclave).

### SAFETY

Safety: The lid cannot be opened if the chamber is under pressure. Safety valve: Prevents over pressure over the maximum limit. Safety pressure switch: switches the heater power off to if over pressure. Safety Lid: insulated lid protection.





TFT touch screen with virtual pushbuttons.



- 1. Graphical representation of real time process
- 2. Start/Stop virtual pushbutton.
- 3. Running program.
- 4. Press indicator.
- 5. Temperature indicator.
- 6. Running program parameters.





### **BACK VIEW**

- 1. Mains input.
- 2. External water supply.
- 3. Safety valve.
- 4. Vacuum vapour valve.
- **5.** Air in filter valve.
- 6. Safety thermostat.
- 7. Safety thermostat.
- Empty tank valve.
   Drain tank valve.
- 10. RS232 connector.
- 11. USB connector.

#### **MICROPROCESSOR FEATURES**

The microprocessor controls the performing of the air extraction process, sterilizing and drying, executing the selected procedures and commands by the user, adjusting the following parameters:

<ul> <li>Sterilization temperature from 105°C up to 134°C.</li> <li>Sterilization time from 3' to 59'.</li> <li>Drying time from 20' to 60'.</li> <li>Up to 10 user-configurable programs.</li> <li>Six operating modes:</li> <li>Solid 1 - Solid 2 fractions Solid 3 fractions - Drying - Liquids - Liquids 2 probes</li> <li>Verification test</li> <li>Vacuum - Bowie Dick.</li> <li>Settings:</li> <li>Units - languages (Spanish, English, French).</li> <li>Printer module On/Off Clock: date/time.</li> </ul>	<ul> <li>External water: on/off.</li> <li>Password for configuration.</li> <li>Calibration (adjustment offset)</li> <li>Temperature probe 1 - Temperature probe 2</li> <li>Water dosing Pressure</li> <li>Audible and visual alarm for overtemperature and insufficient temperature.</li> <li>Network failures detection and memorization</li> <li>Safety therrmostat by software</li> <li>Sterilization cycles data logging with capacity for over 500 cycles.</li> <li>Internal cleaning program</li> <li>Graphical representation of real time process</li> </ul>						
Error messages of functions and program execution are displayed and an acoustic alarm sounds. The vapour generator automatically cuts out.							

#### **MESSAGES:**

1. E 2PROM 2. RTC FAULT 3. Sensor Precision 4. Heater Probe 5. Chamber Probe 6. Over Pressure				RE Temperature Rature Low Fa Error	ULT			17 PAPE	L 2 R Ter no paper			
MODELS	Part No.	Dry	Capacity litres	Ø / Height (usables) cm	Height / (exte	Nidth / erior) c	/ Depth cm	Temp. ° C	Water Reservoir H2O capacity.	Basket size	Power W	Weight Kg
AUTESTER ST DRY PV III 50	4002516	Yes	50	30 63	117	48	62	105 to 134	10	3	3000	108

4002516 Yes 50 30 63 117 48 62 105 to 134 10 3000 108 3 **AUTESTER ST DRY PV III 80** 4002519 Yes 80 40 60 119 58 72 105 to 134 10 2 4850 136 80 95 **AUTESTER ST DRY PV III 150\*** 4002518 150 70 105 to 134 20 7500\* 250 Yes 50 118 3

Comes without baskets and drums.\* The part number 4002518 due to its power rating is only manufactured for three phase 230V or 400V. Specify preference when ordering.





**Printer** of continuous paper roll with print out of program, temperature, pressure, time and phase. Part No. 4002417 **Pt100 Sensor** (See page 63).

# COMPLEMENTS FOR "PRESOCLAVE III", "PRESOCLAVE PLUS" AND "AUTESTER ST DRY PV III"

#### Loading and unloading crane

Baskets elevator for loading and unloading of autoclaves of 50, 80 and 150L

With adapter for handling baskets without deforming.

Axial rotation for placing baskets to a trolley.

Total lift height: 2.35 m (autoclave assembled)

Bottom part made of epoxi coated steel and upper part made of stainless steel.

Maximum crane load: 40 Kg.

Power: 230V 300W

UP/DOWN pushbutton.

Part No: 1002426



# PARAMETERS AND PROGRAMS PRE INSTALLED IN THE AUTOCLAVE MICROPROCESSOR

(Note: A	(Note: All these parameters are adjustable by the user)									
N⁰ Programr	Description ne	Temperature Sterilization	Time Sterilization	Time Dry	Purge					
0	Free	-	-	-	-					
1	Unwrapped instruments	134 °C	4 min	15 min	2 (1)					
2	Wrapped instruments	134 °C	12 min	30 min	3 (2)					
3	CJD	134 °C	20 min	20 min	3 (2)					
4	Delicate unwrapped	121 °C	15 min	15 min	2 (1)					
5	Delicate wrapped	121 °C	30 min	30 min	3 (2)					
6	Disinfecting	105 °C	25 min	15 min	1 (3)					
7	Liquids	121 °C	30 min	-	1 (3)					
8	Solids	121 °C	15 min	30 min	1 (3)					
9	Solids	134 °C	4 min	30 min	1 (3)					
(4) 0	11 1/ /O T !									

(1) Double Vacuum purge. (2) Triple Vacuum purge.

(3) Atmospheric purge (No vacuum).

ACCESSORIES: AISI 304 Stainless steel wire baskets and drums. For Autester ST DRY PV-II 50, Part No: 4002516. Capacity, 3 baskets Ø 25,5 and 20 cm. height. Part No: 1000495 For Autester ST DRY PV-II 80, Part No: 4002519. Capacity, 2 baskets Ø 36 and 28 cm. height. Part No: 1000496 For Autester ST DRY PV-II 150, Part No: 4002518. Capacity, 3 baskets Ø 44,5 and 22 cm. height. Part No: 1000780 Sterilization drum made from AISI 304 stainless steel. For Autester ST DRY PV-II 50, Part No: 4002516. Capacity, 3 drum Ø 25 and 18 cm. height. Part No. 1002418 For Autester ST DRY PV-II 80, Part No: 4002519. Capacity, 2 drum Ø 35 and 27 cm. height. Part No. 1002419 Detergent Bio-Sel. (see page 63) Water distillation unit especially for autoclaves. (see page 63). Purge microfilter. Part No. 4001221



# Culture media autoclave preparer "Med 40 CLT"

CONTROL OF PROCESSES BY MICROPROCESSOR. FOR ADJUSTABLE TEMPERATURES FROM 105°C TO 125°C. Vertical model capacity: 40 litres



EN 61010-1 EN 61010-2-040 EN 61326 STANDARD SAFETY REQUIREMENTS FOR LABORATORY USE EQUIPMENTS. SAFETY REQUIREMENTS FOR LABORATORY USE EQUIPMENTS. STERILIZERS. REQUIREMENTS FOR ELECTROMAGNETIC COMPATIBILITY OF LABORATORY EQUIPMENTS.

### **APPLICATIONS**

Ideal for the operative workflow in microbiology and in tissue culture laboratories. Preparation, sterilization and dispensing culture media is integrated in a single autoclave.

High efficiency system in heating, cooling and chamber agitation.

#### **FEATURES**

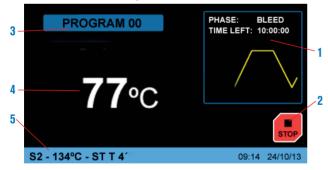
Stainless steel outer casing. Tank and cover in stainless steel. USB output for data recording in PEN-DRIVE. 50 programs totally configurable by the user. Dosage per peristaltic pump. Dosage control by a pedal. Magnetic stirrer for internal stirring with PTFE rod. Agitation speed adjustment (50-200 rpm). Filler for dosage additive. Temperature control by water probe and by product probe.

### SAFETY

Safety: The lid cannot be opened if the chamber is under pressure. Safety valve: Prevents over pressure over the maximum limit. Safety pressure switch: switches the heater power off to if over pressure. Safety Lid: insulated lid protection.

# **CONTROL PANEL**

TFT touch screen with virtual push buttons.



- 1. Graphical representation of processes in real time
- 2. Start/Stop button.
- 3. Program in execution.
- 4. Temperature indicator.
- 5. Parameters of the program in execution

#### MODEL

Part No.	Capacity litres	Ø H (useful) (	eight cm	Hei	•	dth / Depth or) cm	Power W	Weight Kg
4002000	40	20	45	117	50	65	6000 III phase	95

**COMPLEMENTS** that must be installed at the factory:

Printer on continuous paper with indication of temperature, time and mode. Part number 4002417 (See page 61)



# Available from July 2020

#### **OPTIONS:** for vertical autoclaves, need to be factory fitted.



Pt 100 Sensor. 2<sup>nd</sup> Probe for reading sample temperature.

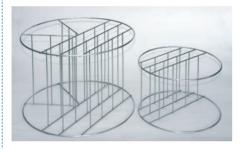
To guarantee in all circumstances that the system has completed the cycle to the set time and temperature parameters, the Autester ST DRY PV III autoclave can be installed with a temperature probe that can be placed within the culture flask, residual packets etc.

When the probe is connected to the controller of the autoclave, it must be selected in settings, whereby the real time temperature values detected by the probe, are displayed and printed.

For autoclaves PRESOCLAVE III and PRESOCLAVE PLUS this Pt100 sensor only reads the temperature with an external thermometer. Part No. 4001219

#### **ACCESSORIES FOR VERTICAL AUTOCLAVES**











AISI 304 stainless steel wire baskets.									
Part No.	Ø	Height m	Suitable for autoclaves Part No.	Number of baskets					
1004771	22	14	4001745	1					
1004772	22	24	4001756	1					
1004773	23	17	4001757	2					
1000495	27	20	4001758 - 4001770 - 4002516	3					
1000496	36	28	4001759 - 4001771 - 4002519	2					
1000780	44	22	4001772 - 4002518	3					
1000490*	26	19	4001758 - 4001770 - 4002516	3					
1000491*	36	26	4001759 - 4001771 - 4002519	2					
1000492*	47	20	4001772 - 4002518	3					

\*AISI 304 stainless steel blind baskets.

AISI 316 stainless steel wire dividers for autoclave baskets. Part No.

**1001217** 4 divider compartments for basket part no. 1000495. 1001218 6 divider compartments for basket part no. 1000496.

1001222 7 divider compartments for basket part no. 1000780.

#### **Sterilization Drums.**

Código		Height m	Suitable for autoclaves Part No.	Capacity Drums	
1002418	25	18	4001758 - 4001770 - 4002516	3	
1002419	35	27	4001759 - 4001771 - 4002519	2	
1002420	28	18	Not suitable for our autoclaves.		

#### Water distiller, specially for autoclaves "DEST-4".

Distillation capacity: 1.2 litres/hour. Internal capacity 4 litres. Case made from thermo resistant plastic. Internal stainless steel.

No ternal additiona water required

Cooling by forced air though a condenser. Without glass heater elements. Easy to use. Safety cut out system if over temperature due to insufficient water. Comes complete with a 4 litre three way dispenser plastic bottle with filter. Note: for daily use it is recommended to change the filter every 3 months.

Part No.	Capacity	Conductivity	Ø Height	Power	Weight
	Distillation litre/Hour	µs/cm	cm	W	Kg
4001729	1.2	5	29 39	750	3.5

Spare: Dispenser spout with filter. Part No. 4001730

# Detergent "BIO-SEL"

We recommend the use of BIO-Sel detergent for cleaning, it is also biodegradable and free from Phosphates.

Part No.	
1000025	Capacity 1 litre.
100026	Canacity 4 litres

1000020	oupdoity + introd.
1000852	Box of 12 x 1 litre flasks.
1000853	Box of 4 x 4 litre flasks.

# Autoclave for liquids and solids sterilization "Autester ST DRY PV III"

CAPACITY: 25 LITRES. SPACE FOR 12 BOTTLES OF 250 ML, 9 OF 500 ML, 3 OF 1000 ML AND 2 OF 2000 ML. CONFORMS TO THE REGULATION - 2014/68/UE EQUIPMENT UNDER PRESSURE.

# Complete selection of programs. Displays in English - Spanish - French.

### **FEATURES**

CTATIE

Sterilization chamber and lid made from AISI 304 stainless steel. External case epoxy coated. Digital control of all autoclave operations. TFT 3.5" touch screen .

Air filter, purifies air before entering in the sterilization chamber. Separate clean water reservoir and waste water. RS-232 Interface output of parameters to a computer or for printer. USB output for PEN-DRIVE data logging.

### **SAFETY**

Safety valve.

Prevents the door being opened if under pressure or high temperature is produced. Temperature safety thermostat. Door closed correctly detector Thermally protected lid.

#### **MICROPROCESSOR FUNCTIONS**

Controlled parameters are:

- Sterilization temperature from 105°C up to 134°C.
- Sterilization time from 3' to 59'.
- Drying time from 20' to 60'.
- Up to 10 user-configurable programs.
- · Six operating modes:
- Solid 1 Solid 2 fractions. Solid 3 fractions Drying Liquids Liquids 2 probes
- Verification test
- Vacuum Bowie Dick.
- Settings:
- Units languages (Spanish, English, French). Printer module On/Off. Clock: date/time.
- · Password for adjustment.
- Calibration.
- Temperature probe 1 Temperature probe 2 Water dosing Presion.
- · Audible and visual alarm for overtemperature and insufficient temperature.
- Network failures detection and memorization.
- Safety therrmostat by software.
- Sterilization cycles data logging with capacity for over 500 cycles.
- Internal cleaning program.
- Graphical representation of real time process.

#### **CONTROL PANEL**

TFT touch screen with virtual pushbuttons.





- 2. Start/Stop pushbutton.
- 3. Running program.
- 4. Press indicator.
- 5. Temperature indicator.
- 6. Running program parameters.



MODEL	Part No.	Capacity litres	Ø/Depth (usables) cm		Power W	Weight Kg
AUTESTER ST DRY PV III 25	4002420	25	30 35	58 46 59	2510	52

AUTESTER ST DRY PV III 25 4002420 25



Comes complete with three trays, extractor forceps, and additional support for instruments and sterile wrapping bags

### PARAMETERS AND PROGRAMS PRE INSTALLED IN THE AUTOCLAVE MICROPROCESSOR (Note: All these parameters are adjustable by the user)

	, ,	· · · · · · · · · · · · · · · · · · ·	,					
Nº Programme	Description	Temperature Sterilization	Time Sterilization	Time Dry	Purge			
0	Free	-	-	-	-			
1	Unwrapped instruments	134 °C	4 min	15 min	2 (1)			
2	Wrapped instruments	134 °C	12 min	30 min	3 (2)			
3	CJD	134 °C	20 min	20 min	3 (2)			
4	Delicate unwrapped	121 °C	15 min	15 min	2 (1)			
5	Delicate wrapped	121 °C	30 min	30 min	3 (2)			
6	Disinfecting	105 °C	25 min	15 min	1 (3)			
7	Liquids	121 °C	30 min	-	1 (3)			
8	Solids	121 °C	15 min	30 min	1 (3)			
9	Solids	134 °C	4 min	30 min	1 (3)			
<ul><li>(1) Double Vacuum purge.</li><li>(2) Triple Vacuum purge.</li></ul>								

(3) Atmospheric purge (No vacuum).

#### MESSAGES:

10. TEMPERATURE LOW FAULT
11. INPUT ERROR
12. STERILIZATION
13. LEVEL 1
14. LEVEL 2
15. DOOR
<b>16. PRINTER NO PAPER</b>
17 PAPER JAM
18. ELECTRICAL FAULT

#### **ACCESSORIES**

Ink Printer (no thermal). Paper size 2 1/4" (56 mm) wide. Includes communications and power cable. Model Height/Width/Depth Weight Part No. Power Kq cm



### 4120113 4 16 10 DC 5V 3A 1 Water distiller especially for Autoclaves. (See page 63).

Bag sealers (See page 68 and 69).

Special tray for bottles of 0.25, 0.5, 1 or 2 litres. Part No. 4002416

# Autoclave for sterilization "Autester ST DRY PV" Class B



AUTOMATIC VACUUM DRY AND PURGE. PROGRAMS TO 121 °C AND 134 °C (1 AND 2 bar). Model Horizontal. Capacity: 12, 18, and 23 litres.

#### **APPLICATIONS**

CIT ID

"Class B" autoclaves are used within the field of general medicine, dentistry, veterinary, tattoo parlours and sterilization applications in general, to sterilize any material that could have been in contact with body fluids including blood.

The general capabilities of the instrument are regulated by EN 13060 that guarantees the differing sterilization applications.

The normal processes include: Solids with and without wrapping, porous material with and without wrapping and utensils that have cavities and holes (e.g. dentistry materials.)

To guarantee sterilization of these materials the "AUTESTER ST DRY PV" Class B, autoclaves, have an efficient staged vacuum, that performs a complete extraction of air that allows penetration of the steam vapour.

The same vacuum system is used to obtain the dry phase, which is required for perfect storage of sterilized materials.

The "AUTOCLAVES ST DRY PV" Class B includes verification and validation programs.

	GUNFURMITY:
	EN 13060 SMALL GENERAL PURPOSE STEAM STERILIZERS.
	EN 61010-1 EQUIPMENT SAFE FOR LABORATORY USE.
	EN 61010-2-040 SAFETY FOR STERILIZER EQUIPMENT FOR LABORATORY USE
	EN 61326 ELECTROMAGNETIC COMPATIBILITY FOR EQUIPMENT USED IN THE LABORATORY.
l	

#### **SAFETY:**

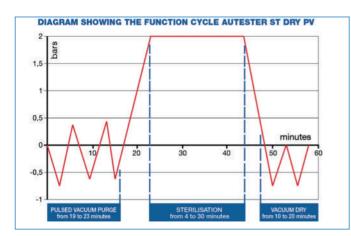
SAFETY VALVE: PREVENTS THE PRESSURE EXCEEDING THE MAXIMUM SET LIMIT. SAFETY THERMOSTAT: DISCONNECTS THE HEATER AGAINST OVER TEMPERATURE OR LOW WATER IN THE RESERVOIR. THERMALLY INSULATED LID.







18 and 23 litres



**Staged fractional vacuum:** Extracts air from the load that permits absolute steam vapour penetration.

**Sterilization stage:** Sterilization within the time and temperature selected.

**Dry cycle:** Extracts the humidity from the load leaving it suitable for storage.

# Autoclave for sterilization Autester "ST DRY PV" 12 Class B

CAPACITY: "ST DRY PV": 12 LITRES.



# According to directive: 2014/68/UE equipment under presure, 3.3.

#### **FEATURES**

CI CI III

Stainless steel internal chamber. Staged vacuum purge. Dry by vacuum Incorporated steam generator. Water reservoir to supply the chamber High vapour penetration of porous material Used in digestive studies, ophthalmology, operating theatres etc .

#### **SAFETY**

Safety valve. Prevents over pressure over the maximum working limit. Safety thermostat. Disconnects power to the heater if over temperature or low water in the reservoir. Thermally protected lid.

#### **CONTROL PANEL**





TEMPERATURE CONTROL AND AUTOMATIC MICROPROCESSOR CYCLE.

- 1. Pressure indicator (bar).
- **2.** Temperature indicator (°C).
- 3. Time Indicator (min.).
- **4.** 121 °C.
- <mark>5.</mark> 134 °C.
- 6. Program selection.

8. Textile materials.

9. Solids (Not wrapped).

- 7. Select wrapped or non wrapped.
- Sterilization cycle in process.
   Autoclave ready for operation.

10. Solids (Wrapped).

11. Test.

12. Preheating.

- 15. Low level water indicator.
- 16. Fast dry (1 or 5 minutes).
- 17. "Maintain hot" the chamber.

CYCLES	134 °C Wrapped	134 °C Not Wrapped	121 °C Wrapped	121 °C Not Wrapped	Textiles	Test Bowie Dick	Test Vacuum
Sterilization Temperature	134 °C	134 °C	121 °C	121 °C	134 °C	134 °C	-
Sterilization pressure	2.1 bar	2.1 bar	1.1 bar	1.1 bar	2.1 bar	-	2.1 bar
Vacuum purge time	8 min.	4 min.	8 min.	4 min.	8 min.	-	-
Sterilization time	12 min.	4 min.	30 min.	20 min.	12 min.	3.5 min.	10 min.
Dry time	10 min.	10 min.	10 min.	10 min.	15 min.	1 min.	-

MODEL	Part No.	Capacity litres	Ø / Depth cm	External dimensions cm Height Width Depth	Trays dimensions cm Height Width Depth	Power W	Weight kg
AUTESTER ST DRY PV B 12	4001737	12	20 35	39,2 48,7 60	1,8 14 29,5	1800	42,2



ACCESSORIES

Thermal Printer. Paper size 2 1/4" (56 mm) wide. Includes communications and power cable. Power: DC 5V 3A Part No: 4120123 Water distiller especially for Autoclaves. (See page 63). Bag sealers (See page 68 and 69).



Comes complete with: spare joint, door adjustment key, support with three trays, extractor forceps, empty water filter and waste water out.

# Autoclave for sterilization "Autester ST DRY PV" 18 Class B



"ST DRY PV" 23 Class B

CAPACITY: "ST DRY PV" 18: 18 LITRES. "ST DRY PV" 23: 23 LITRES..

According to directive: 2014/68/UE equipment under presure, 3.3.

# **FEATURES**

Digital electronic control. Stainless steel internal chamber. Staged vacuum purge. Dry by vacuum Incorporated steam generator. Water reservoir to supply the chamber High vapour penetration of porous material Used in digestive studies, ophthalmology, operating theatres etc. Automatic or manual filling of the water tank. Printer interface.

USB connection for parameters memorization (software included).

## **SAFETY**

Mechanism door lock, prevents the door being opened accidentally.

Safety valve. Prevents over pressure over the maximum working limit.

Safety thermostat. Disconnect power to the heaters if over temperature or low water in the reservoir are produced.

Thermally insulated lid. Dirty water tank full alarm.

# **CONTROL PANEL**

- 1. LCD screen.
- 2. Push button increase parameters.
- 3. Push button decrease parameters.
- 4. Push button menu.
- 5. Push button Start-Stop.



TEMPERATURE CONTROL AND AUTOMATIC MICROPROCESSOR CYCLE.

CYCLES	134 °C Emergency	134 °C Solid	134 °C Hollow	134 °C Sanguinary	121 °C Solid	121 °C Hollow	134 °C Glass	121 °C Tampon	134 °C Bowie Dick	134 °C Helix	134 °C User-defined	Test Vacuum
Sterilization Temperature	134 °C	134 °C	134 °C	134 °C	121 °C	121 °C	134 °C	121 °C	134 °C	134 °C	134 °C	-
Sterilization pressure	2,1 bar	2,1 bar	2,1 bar	2,1 bar	1,1 bar	1,1 bar	1,1 bar	1,1 bar	2,1 bar	2,1 bar	-	-
Vacuum purge number	1	1	4	3	1	3	1	3	3	3	3	-
Sterilization time	4 min.	4 min.	4 min.	18 min.	20 min.	20 min.	4 min.	30 min.	3,5 min.	3,5 min.	4 min.	-
Dry time	8 min.	4 min.	10 min.	10 min.	8 min.	10 min.	4 min.	18 min.	3min.	3 min.	3 min.	-

MODEL	Part No.	Capacity litres	Ø / depth cm	External dimensions cm Height Width Depth	Trays dimensions cm Height Width Depth	Power W	Weight kg
AUTESTER ST DRY PV 18	4001734	18	24,5 38	40 47 56	2 20,5 28	1500	46,6
AUTESTER ST DRY PV 23	4001735	23	24,5 48	40 47 67	2 20,5 38	1700	48



Comes complete with: spare joint, door adjustment key, support with three trays, extractor forceps, empty water filter and waste water out.

# **ACCESSORIES**

Ink Printer (no thermal). Paper size 2 1/4" (56 mm) wide. Includes communications and power cable. Power: DC 5V 3A Part No: 4120124 Water distiller especially for Autoclaves. (See page 63). Bag sealers (See page 68 and 69).

