



## “TABLE TOP - STEAM STERILIZER”

Dental & Hospital Application



Infection Control System



Infection Control System



# “THE CISA GROUP COMPANY”

## COMPANY PROFILE

CISA has been manufacturing and selling sterilization systems for over 60 years for both hospitals and industrial applications for all sterilization needs.

CISA is an Industrial Group which manufactures hospital and industrial machinery having integrated technological production systems with factories in different continents and its headquarters in Lucca, Italy.

Distributor coordination and technical service centres are managed through CISA branches, located in Joinville (Brazil) for Brazil and Latin America, in Amman (Jordan) for Middle East area, and Singapore for Asia,

as well as distributors and sales offices worldwide to ensure a constant presence and complete service in all countries in which CISA operates.

CISA takes part in a very important field, **sterilization**, that is in continuous development. For this reason it has focused its activity on a line of products that includes: infection control solutions, machinery for washing and disinfecting, machinery for high and low temperature sterilization, software systems for management control and medical waste treatments. All the products in the different lines are “made in CISA” from design to manufacture.

**Gabriele Pacini**  
CEO

Cisa - Infection Control System

# “WITHIN THE OPERATING ROOM & DENTAL OFFICE”

WHERE YOU CAN FIND ME

The Table Top CISA (as shown on the photo) according the regulations of the hospital or dental offices is installed in the operating room or inside dental offices, where the operator can have immediate access and fast sterilization for the instruments or sterile materials needed.

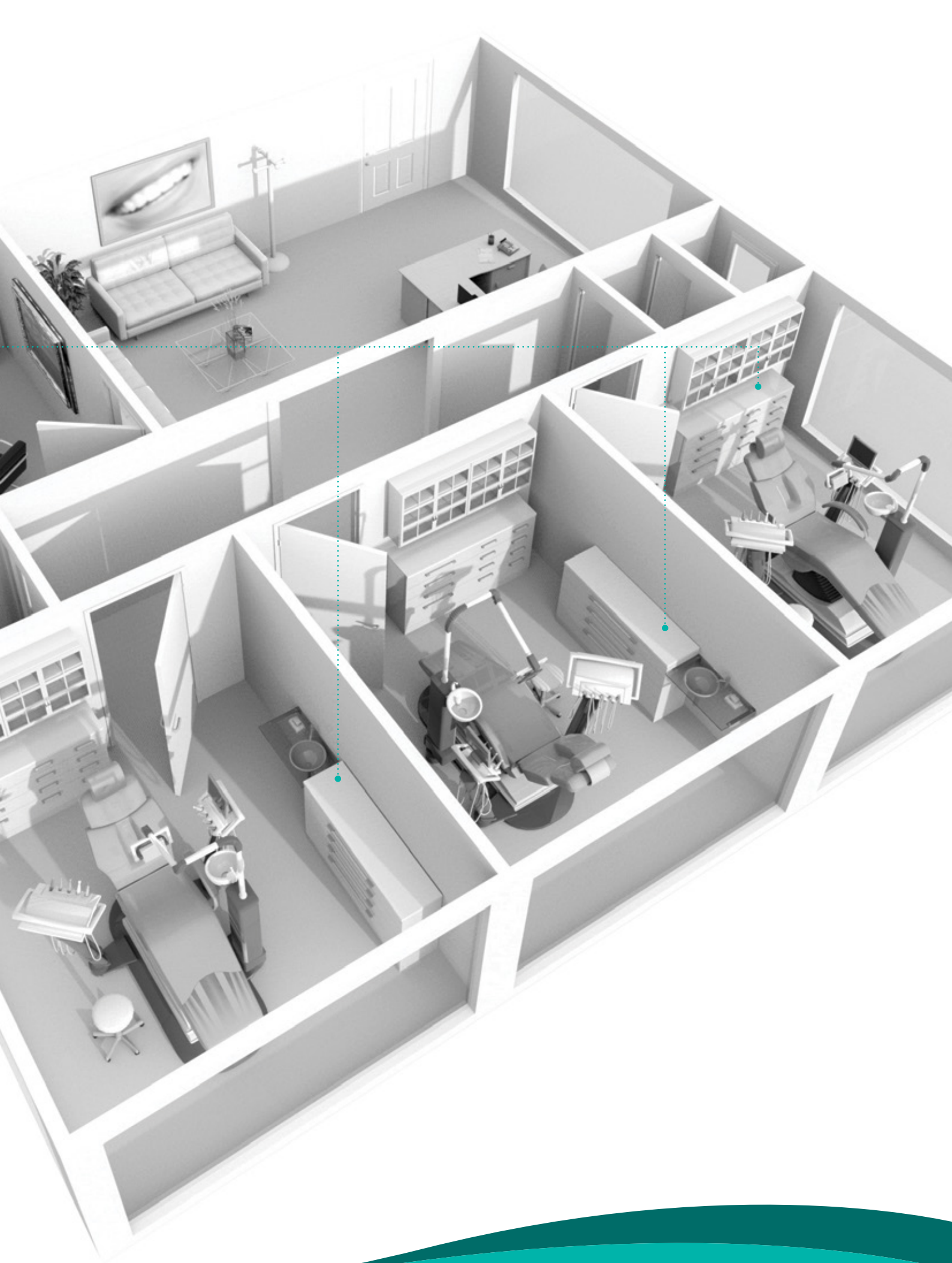


## “Table Top”

Steam High Temperature Sterilizer  
Dental & Hospital Application



Infection Control System



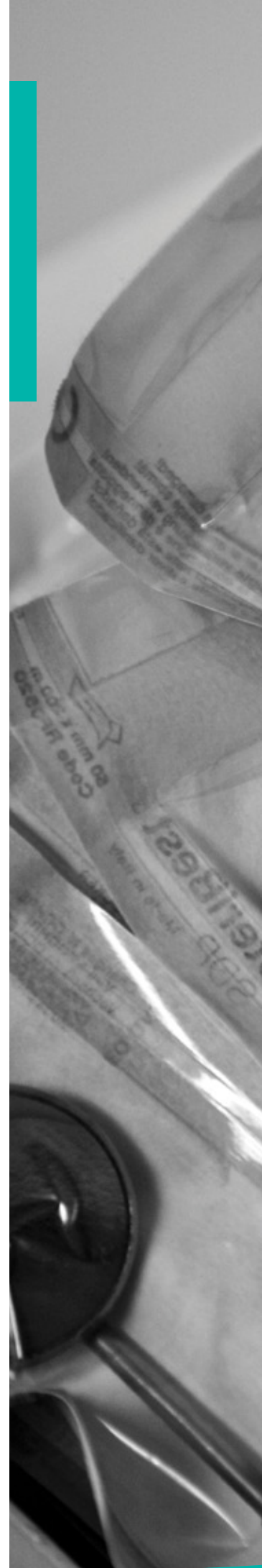
# “TABLE TOP STERILIZER”

## FROM SMALL TO BIG CAPACITY

CISA Table top meets all the professional sterilization requirements: various models with different load capacity, equipped with advanced technology, pursuant to the latest technical and regulatory standards and produced thanks to CISA's R&D professional engineers.

CISA Table top allows the user to perform sterilization procedures on all types of instruments, solid, hollow or porous, wrapped or not, by means of cycles which use the fractionated vacuum pulsations controlled by the electronic system. The large display allows easy and immediate use.

The cycles traceability is guaranteed by the electronic control and by various ancillary equipments in order to ensure maximum safety during the sterilization phase. The wide range of models are equipped with vacuum thermodynamic technology; class B or class N cycles are available some models, as extremely versatile and equipped with a pump for fractionated vacuum creation.



# THE LARGEST OF THE SMALL

Designed and built according to the standards, CISA offers different dimensions and can be proud of the largest TABLE TOP sterilizer on the market.

# “MODEL: P-240H & P-250H”

TABLE TOP

## “STERILISATION CHAMBER”

The equipment consists of a sterilisation chamber made of hand-polished AISI 304 stainless steel, of adequate thickness for the steam pressure and operating temperatures, resistant to corrosion. The rounded shape of the chamber allows the condensate to drain perfectly. The appliance is compliant with the European Pressure Equipment Directive (PED) 97/23/EC and bears the relative marking (CE).



## “CLOSING DOOR”

The door closing is manual and is made of Aluminium. It is complete with reinforcement ribs and insulated with pad that guarantees an external temperature below 45°C. The tightness is guaranteed by the compression of the gasket. Throughout the process, this ensures it adheres perfectly to the surface of the door. Automatic door locking device (VLS - vacuum locking system), simply closing the door with a light push forward with the palm of your hand. Without complicated mechanism, it utilizes the natural pull of the vacuum to let the hooks securing the door closure.

## “MAINTENANCE”

Even though the overall dimensions of the machine are contained, it is spacious inside thanks to the designed position of the components, which also facilitate maintenance.





## “HYDRAULIC SYSTEM”

Flexible Pipes are made of PIFE. Fittings and other hydraulic components (valves, check valves, etc.) are made of stainless material.

## “POWERFUL VACUUM SYSTEM”

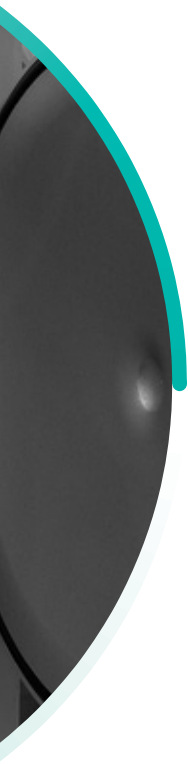
The machine has a powerful vacuum system consisting of a single-stage pump with a liquid ring that ensures excellent removal of the air during the pre-vacuum stage and excellent drying during the post-vacuum stage. The pump is installed on special anti-vibration mounts that reduce noise whilst ensuring high levels of protection. By using steam/vacuum pulses during the pre-vacuum stage, all the air is removed to ensure excellent penetrability of the steam inside the load. The type and amount of pulses may vary depending on the load and packaging material.

## “WATER TANKS”

Inside the protective casing there are no.2 stainless steel tanks (2,1 lt. each), where one is for clean water loading and one for wastewater collection. The design of the clean water tank facilitate its cleaning, inspection and filling.

## “CONTROL PANEL”

Wide graphic display which allows to get all cycle parameters: date and time, running cycle, cycle phase, temperature, absolute pressure, cycle duration and time remaining for sterilization and drying phases. The display shows also all the messages with the relating icon: door locked, wait door unlock, maintenance schedule, preheating, cooling pause, minimum water level, maximum water level, check water quality, water drain and cycle completed. In case of alarm, the display shows the description of the alarm, the cycle and the phase in which it has occurred. The alarm is showed with an intermittent sound and can be silenced introducing the safety code. The safety code is set to 1 by default, the user can change it from the display and print it.



# “INTERFACE & SOFTWARE”

## USER FRIENDLY

A very user-friendly software controls the many functions of CISA TABLE TOP. With only 4 key buttons you can get through the menus of CISA TABLE TOP. For example, in every moment of the cycle, pressing INFO, you can get to know all the information you need: relative pressure, theoretic steam temperature, total cycle number, water conductivity of the last automatic load, user connected, serial number, firmware version and programming file. During the cycle, pressing GRAF, CISA TABLE TOP shows the diagram of the absolute pressure in real time. Pressing EVENT you can get to know all the phases of the running cycle with the time, pressure and temperature of their starting; for sterilization there are also the minimum and maximum values of temperature, pressure and theoretic steam temperature.

From the Main Settings Menu, you can modify all the options of CISA TABLE TOP:

- Language: you can chose between 6 languages
- Date and time,
- Self-filling,
- Auto shut off: 30 min., 1 hour or 2 hours. If no key is pressed within the set time, the sterilizer will turn off automatically
- Button sound: ON/OFF
- Printer: 1 copy, 2 copies, 3 copies or OFF
- Data logging: you can chose to print the data every minute or change phase (with this option you save space and paper)

CISA TABLE TOP has a service diary on board which shows the user the list of all components, with the remaining cycles and days for each item. If the number of remaining cycles or days is zero, SterilClave shows the message “Maintenance schedule” on the display in STAND BY and also in the printed report.

# “FUNCTION HOLLOW LOAD”

## HOLLOW A/B

A simple and automatic calculation to find out the type of hollow load according to EN 13060: introducing the cavity length and diameter and the number of open edges, CISA TABLE TOP tells you the type of load (solid, hollow A or hollow B).

# “FUNCTION PROGRAMMED START”

## MAGICAL START

With this tool you can program the delayed start of a cycle. You choose the cycle, the date and time for the cycle beginning and CISA TABLE TOP will start it for you. The great news is the introduction of the Vacuum+Bowie&Dick test cycle, which will perform the vacuum test and then the Bowie&Dick test. After one day of work, you have just to put the B&D test pack in your CISA TABLE TOP, program the Vacuum+Bowie&Dick test cycle for next morning and so CISA TABLE TOP will be ready for use, with all the test cycles already done!





## “CONNECTION” DIRECT TO PC

There is a serial port on the back of the sterilizer for a direct connection to a PC .

## “PRINTER” INTEGRATED

The printer, integrated in the control panel, allows to record and keep a paper report of every sterilization cycle.

## “MAINTENANCE” SPECIAL USB

The technician is provided with a special USB key in order to enter the Technician Menu, not available to the user. From this menu the technician can see all the inputs of CISA TABLE TOP (level probes, temperature probes, pressure transducer and micro-switches), change the status of the outputs (electric valves, water pump, vacuum pump and coils), calibrate the temperature probe and the pressure transducer, set the CONTINUOUS CYCLE, set the safety code back to 1, test the water load in the sterilization chamber, turn ON the accessories (external water charge, printer and USB reader) and delete the register of the maintenance operations made on CISA TABLE TOP.



# “STERILISATION CYCLES”

These are obtained via the system that controls the autoclave.  
The following cycles can be obtained:

## 6 PRE-SET CYCLES TO STERILIZE EVERY KIND OF MATERIAL

(solid, porous, hollow A or hollow B)

- 121°C UNWRAPPED
- 134°C UNWRAPPED
- 134°C WRAPPED
- 121°C HOLLOW/POROUS
- 134°C HOLLOW/POROUS
- 134°C PRIONS

## 1 SPECIAL CYCLE, USER-PROGRAMMABLE

The programming and the start of this cycle are protected by an access code

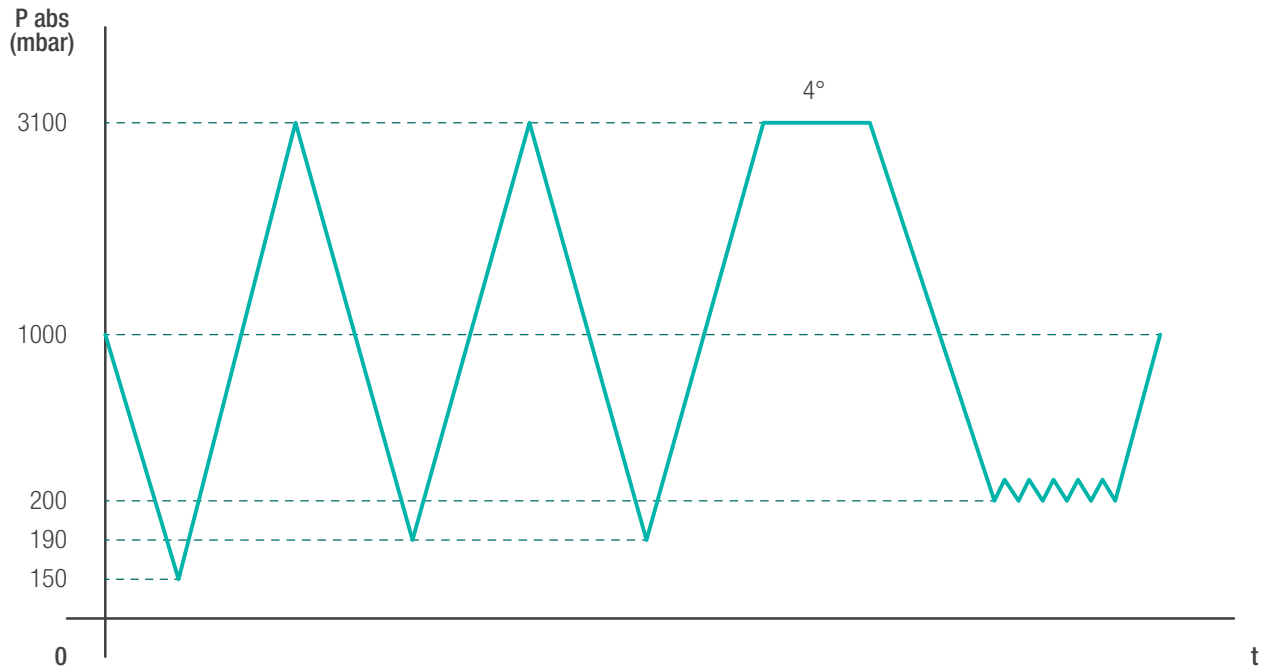
## 2 TEST CYCLES:

- VACUUM TEST (air leakage test)
- BOWIE&DICK TEST (porous load test)



# “CYCLES PROFILE”

The pressure of the pre-vacuum phase of the cycles reaches 150 mbar and the pressure of the drying phase reaches 200 mbar. The drying phase combines the action of the vacuum pump to the introduction of air filtered through a specific bacteriological filter. The sterile air entering the chamber is warmed up by passing near the heating elements and this guarantees a perfect drying with a residual humidity lower than 0,2% for solid load and lower than 1,0% for porous load (as stated in EN13060).



## “OPTIONALS”

SOMETHING FOR EVERYONE

### MAGNETIC WATER SOFTENER

A compact automatic water softener with automatically-controlled regeneration to treat the water that supplies the equipment for the sterilization operations.

DISCOM WATER DISTILLER 0,6lt/hr, TANK CAPACITY 4lt

INDEPENDENT WATER DISTILLER 5lt/hr

# “MODEL: P-290H”

TABLE TOP

## “TECHNICAL DETAILS”

### OPERATION “E” (ELECTRIC)

Self-heating of the chamber through instant steam generators, it works with 3.5 kW maintaining the same performance in every load configuration. The machine is completed with a pressure switch and pressure transducer to control the pressure and temperature inside the chamber.

### VACUUM PUMP

The vacuum pump is a liquid ring pump. The use of a liquid ring pump means it is possible to maintain the same performance in every load configuration, keeping a low degree of vacuum.

### MANAGEMENT & TOUCH SCREEN

Integrated control system with 4.3 inch touch screen that shows the pages which, in turn, are:

- Main Menu
- Library cycles
- Cycle parameters
- Terms of the system for the start of the cycle
- Process control
- Alarms
- Display of temperature and pressure
- The various messages (status port status, temperature, pressure, vacuum, etc.).

### PLUMBING ACCESSORIES

Automatic safety

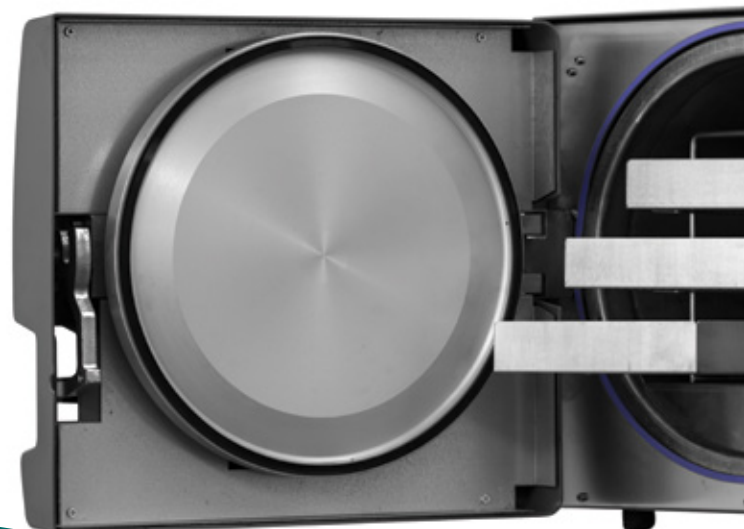
Absolute filter with an efficiency of 0.2 microns for sterile air inlet

### LOAD CAPACITY

3 trays, <60 liters

### EXTERIOR FINISH

The front panel is made of ABS.





## SECURITY SYSTEMS

The machine is equipped with the following safety devices, which makes it extremely reliable:

- A Device against mechanical door opening under pressure in the room with a micro-switch
- A Device operating overheat during the sterilization phase
- A Device Security for maximum pressure
- A Device for maximum temperature of electrical resistance
- Thermostat with manual reset, inside the generator
- Fuse and peak voltage on auxiliary electrical system
- A device which prevents opening of the door in the cycles for both liquids in open containers or closed, if the temperature within the liquid has not dropped below 90° C (prepared in autoclaves for the sterilization of liquids in bottles)

## CONTROL SYSTEM

PLC + integrated touch screen.

## HYDRAULICS

The pipes are made of PTFE. The fittings and other hydraulic components (valves, check valves, etc.) are made of stainless steel.



## STERILIZATION CHAMBER

The sterilization chamber is made of AISI 304 stainless steel. Inside the chamber there is a fixed support, made of aluminium and steel, which allows easy insertion of up to 3 trays (made of aluminium, steel). The insulation is made with a mattress of glass wool. Around the chamber there are 2 electric heating elements to guarantee pre-heating in the chamber before the cycle.

## GASKET

The seal is silicone and does not require any maintenance or lubrication. The head gasket is built inside the door structure.

## PORT

The door is constructed of aluminium alloy



## CONTROL PANEL

The control panel contains:

- Alphanumeric printer
- ON / OFF switch on / off equipment
- Pressure vacuum gauge
- Backlit touch screen 4.3"



## PRINTER

The alphanumeric thermal printer, installed on the control panel, is able to print up to 48 characters per line. It embosses messages, alarms, the basic parameters (temperature, pressure, time), the type, stage and outcome of the sterilization cycle. The printout also listed the serial number of the cycle and the date.



## SUPPLY, LOADING AND UNLOADING, WATER CONSUMPTION

The equipment must be supplied with distilled water. The machine is equipped with 2 plastic tanks, one for the load of clean water and the other for the collection of the waste water. The water needs to be loaded into the tank manually.

Water drainage is performed manually by special tap, to be positioned over a collecting vessel or at a discharge line. With a full tank, the machine can perform 7 sterilization cycles.



## STERILIZATION CYCLES

The sterilization cycles consist of consecutive steps where the next step will be executed only upon reaching of the parameters of the previous phase, the complete cycle time is approximately less than 1 hour.

The phases are:

- Pre-conditioning. This phase is performed in a systematic way and is composed of a depressurization of the chamber (vacuum) followed by a water intake chamber and subsequent heating.
- Conditioning (selectable). This phase allows a pulsation vacuum and steam to condition porous materials.
- Heating. In this phase the sterilization chamber and the material is heated until it reaches the sterilization temperature.
- Sterilization. In this phase sterilization with the temperature remains stable for the time defined in the cycle.
- Drying. In this phase drying occurs before the discharge of water and the steam from the chamber and subsequently a vacuum phase.
- Ventilation systems. In this phase the recovery of baric conditions in the room with the introduction of sterile air.





# STERILIZATION CYCLES

The cycles provided by the machine are the following:

Instruments cycles at 134° C. This cycle allows you to sterilize surgical instruments in general.

Rubber cycle at 121° C. This cycle allows you to sterilize gloves, catheters, rubber materials, etc.

Flash cycle at 134° C. This cycle allows you to sterilize surgical instruments, glassware empty or otherwise.

(Option present in the version for lab) Cycle liquids at 121° C. This cycle enables sterilization of liquids in open containers.

Textiles cycle at 134° C. This cycle allows you to sterilize textiles, porous materials, empty glassware, but not for all of the heatresistant items.

Bowie & Dick Test cycle allows you to test the steam penetration in the chamber.

## CYCLE DURATION

The duration of a standard cycle for instruments is about 35 minutes.

## CYCLES FUNCTION TESTS

Are provided in order to allow regular users to verify the functionality and responsiveness of the machine to construction standards:

Vacuum leak test

In addition to the fully automatic cycle provided, it is possible to run the vacuum leak test using manual mode.

Bowie & Dick test, heat penetration

## “OPTIONALS” SOMETHING FOR EVERYONE

### AUTOMATIC WATER LOAD

Kit for direct connection to the water distribution network (osmotic) with automatic loading.

### PRODUCT CYCLE LIQUID - OPEN

Probe product inside the sterilization chamber for laboratory cycles (open liquids with natural cooling).

## “QUALITY & SAFETY” OUR CERTIFICATES

The autoclaves CISA P-200H comply with the Medical Devices Directive 93/42/EEC, according 2007/47 / EC. These machines also follow the European standard EN 13060: 2009 and are validated in compliance with the UNI EN ISO 17665-1: 2007 for steam sterilization. These machines also comply with the directives 2004/108 / EC (EMC) and 2006/95 / EC (LVD) and electrical codes IEC 61010-1: 2013, IEC 61010-2040: 2005, IEC 60204-1 : 2010 and EN 61326-1: 2013.



# “MODELS”

## OUR PRODUCT RANGE

All of the sizes and measurements below can be changed according to the different configurations and applications of the machines.  
The measures are expressed in mm.

	CHAMBER CAPACITY	OVERALL SIZE	WEIGHT	
P-240 H	18 LT	445x390x640	51 Kg	
	24 LT	445x470x700	68 Kg	P-250 H
P-290 H	77 LT	805x540x940	130 Kg	



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