RAYPA

Leading
Lab Technologies

AES-RFG Range with Counter-Pressure

Sterilization/Pasteurization of food products in sealed containers
and other hermetically closed vessels

RAYPA
Leading
Lab Technologies

AES-RFG Range – Sterilization/pasteurization of food products in sealed containers and other hermetically closed vessels which require counter-pressure during the process.

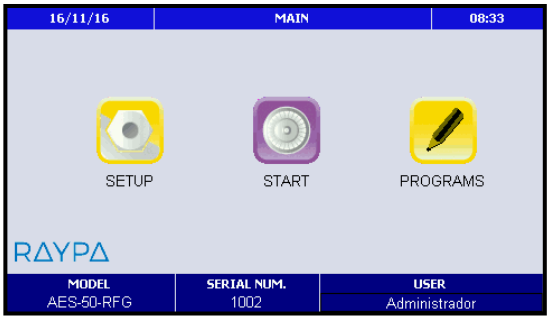
Operating Principal

The purpose of sterilization of hermetic food products in sealed containers is the destruction of all contaminating bacteria including their spores avoiding either spoil preserved products or produce toxins which cause food poisoning of consumers.

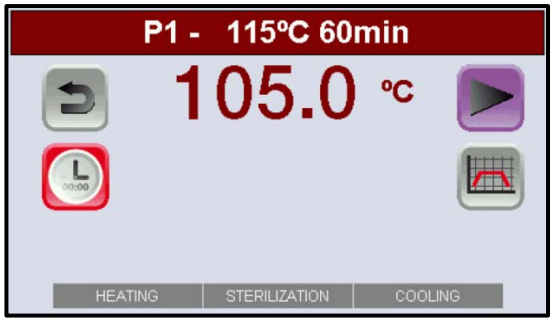
However, a compromise has to be reached in order to keep the heat sterilization intensive enough for the microbiological safety of the products and as moderate as possible for product quality reasons. Very intensive heat sterilization which would eliminate the risk of any surviving microorganisms but most preserved products cannot be submitted to such intensive heat without suffering degradation of their quality because of the destruction of vitamins and protein components.

A method was developed for such a balance between food safety and food quality requirements by measuring and quantifying the summary amount of heat to which a preserved product is exposed during the entire sterilization process: the F0 calculation.

Touch Screen Display – Brand new Touch Screen color display for an easy programming and parameters selection for sterilization process.



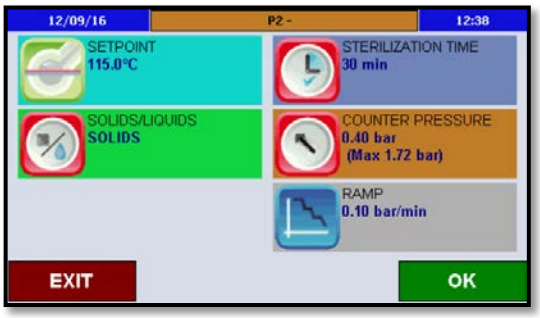
Main screen



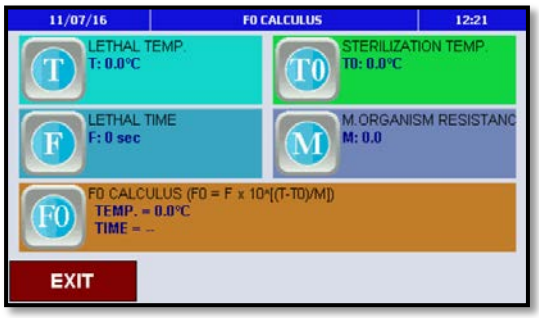
Sterilization screen

Programs – Up to 50 programs user-defined with the following parameters setting:

- Sterilization temperature
- Sterilization time
- Additional counter-pressure
- Cooling ramp
- Cooling temperature
- F0 value



Parameters setting screen



F0 calculation screen

Water Filling – Connection port to the water mains to fill automatically the sterilization chamber and cool it down by internal sprinkle.

Sterilization Process

Heating Stage – Powerful heating elements for a fast saturated steam production.

Sterilization Control – A PT-100 temperature probe controls the chamber temperature and another flexible PT-100 temperature probe controls the simple and its accumulated F0 if necessary.

Cooling Stage – Powerful internal sprinkle is activated in order fill the chamber with water and efficiency reduce the internal temperature of the chamber and cool down in a fast way the food products in sealed containers. Various water fillings can be selected for a most efficiency cooling.

Security – All safety standards are covered with safety valve and safety thermostat, door opening prevention system in case of overpressure, open door sensor and water level detector. EU Directive and Standards:

2014/35/UE *Low Voltage*
2014/30/UE *Electromagnetic Compatibility*
2014/68/UE *Pressure Equipment*

EN-61010-1
EN-61010-2-040
EN-61326
AD 2000 Merkblatt

Communications and Documentation

USB Port – For electronic storage of process data to a USB flash drive.

Ethernet Port – For live monitoring with direct data storage. It is needed the customized software SOFT-SW8000.

Integrated Printer – For quality printouts after each cycle. Intervals can be adjustable. Printer has to be requested before ordering.

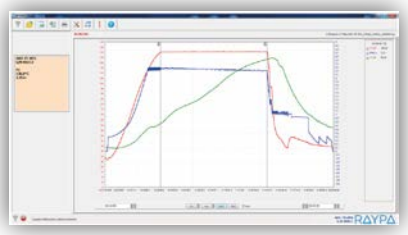
RAYPA
Leading
Lab Technologies

Technical Data

REFERENCE	USEFUL CAPACITY (L)	Ø x H (cm)	FxAxH (cm)	TEMP. (ºC)	MAX. PRESS. (bar)	POWER (W)	WEIGHT (Kg)	TIME (min.)
AES-28-RFG	28	30 x 40	56 x 51 x 112	50 - 130	2,1	3200	90	3 - 180
AES-50-RFG	50	30 x 70	56 x 51 x 130	50 - 130	2,1	3200	110	3 - 180
AES-75-RFG	75	40 x 60	73 x 62 x 119	50 - 130	2,1	6000	140	3 - 180
AES-110-RFG	110	40 x 85	73 x 63 x 144	50 - 130	2,1	6000	180	3 - 180
AES-150-RFG	150	50 x 75	85 x 76 x 140	50 - 130	2,1	9000	265	3 - 180

Accessories

PC connection by ETHERNET (Ref. SOFT-SW8000) (Ref. IT/TS)



Integrated Printer

Basket crane (Ref. ELEV-CLAV)

Wire basket (Ref. CV)