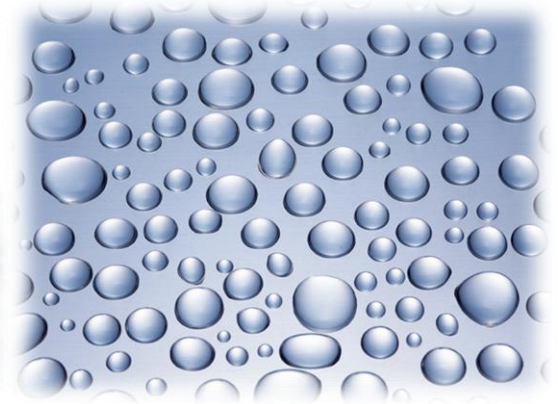




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TECNOLOGÍA PARA ENSAYOS

CCK NG – Climatic Test Chamber





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CCK NG – CLIMATIC CHAMBERS





PRINCIPAL FEATURES

- Designed for general purpose climatic testing
- Volumes from 110 liters to more than 1000 liters. Possibility to manufacture the chamber for higher volumes.
- Optimized turbulence air flow. (laminar air flow optionally). Coils, compressors, and air flow are all optimized to provide optimum results.
- Temperature & humidity option (**CCK NG**) or temperature (**CETM NG**).
- Air cooled. Without exterior installation
- Optional: water cooled (for higher temperature change rates).



PRINCIPAL FEATURES

- Standard temperature change rate:

Cooling: 1°C/min

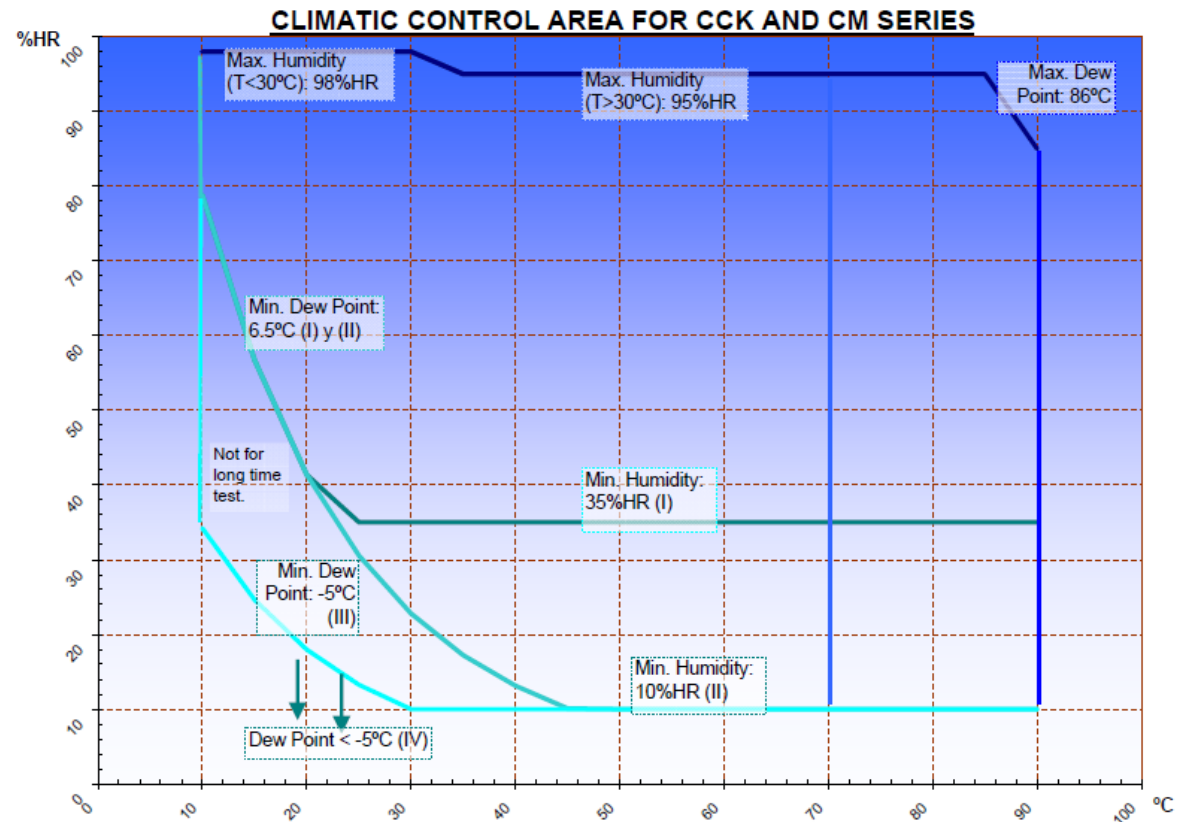
Heating: 2°C/min

- The temperature change rate could be modify until 15°C/min (cooling), ESS chambers .
- Temperature range available:
 - CCK-0/.... NG; from 0°C to +180°C
 - CCK-25/...NG; from -25°C to +180°C
 - CCK-40/...NG; from -40°C to +180°C
 - CCK-70/...NG; from -70°C to +180°C



PRINCIPAL FEATURES

- Humidity range: from 10% to 98% RH, Limited by a 8°C minimum dew point temperature and a maximum dry bulb temperature of 90°C.
- Optional: low humidity package.



- Interior design in stainless steel, AISI 304 or AISI 316 in special cases. New rounded interior finished without seams or screw.
- Insulation: polyurethane and mineral fiber panels
- Exterior manufactured in AISI 304. Two colors are optional: grey or white
- Door 180° opening, with a large heated window.
- One access port (25 or 50 mm Ø, depending of the interior volume).
- Interior Light
- Casters or silent block (depending of the volume)



- Electromagnetic door lock

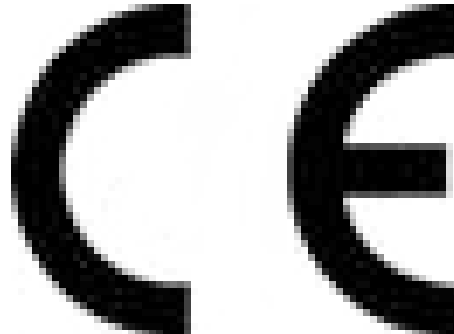


Temperature and humidity sensors.

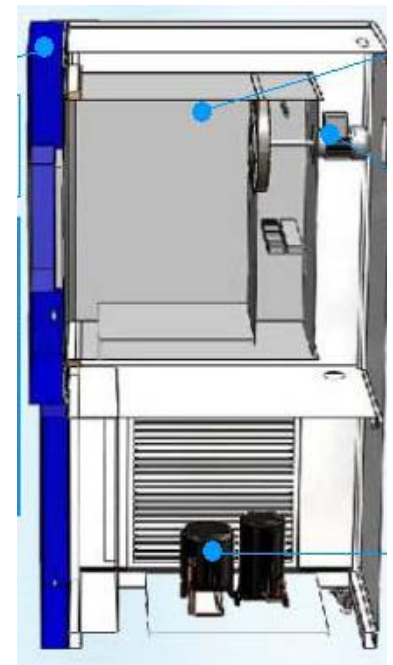
- Independent safety regulator for the test that allows the user to set temperature protection limits (maximum and minimum).



- CE MARK



- Compressor: BITZER, COPELAND, etc. depending the application
- Power: from ½ CV to 20 CV.
- Single stage or double stage (cascade).
- Used gases: R-134 A, R-408, R-404 A, R-410, R-23, etc.
- Cryogenic valve like an option.





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ACTTA CONTROLLER



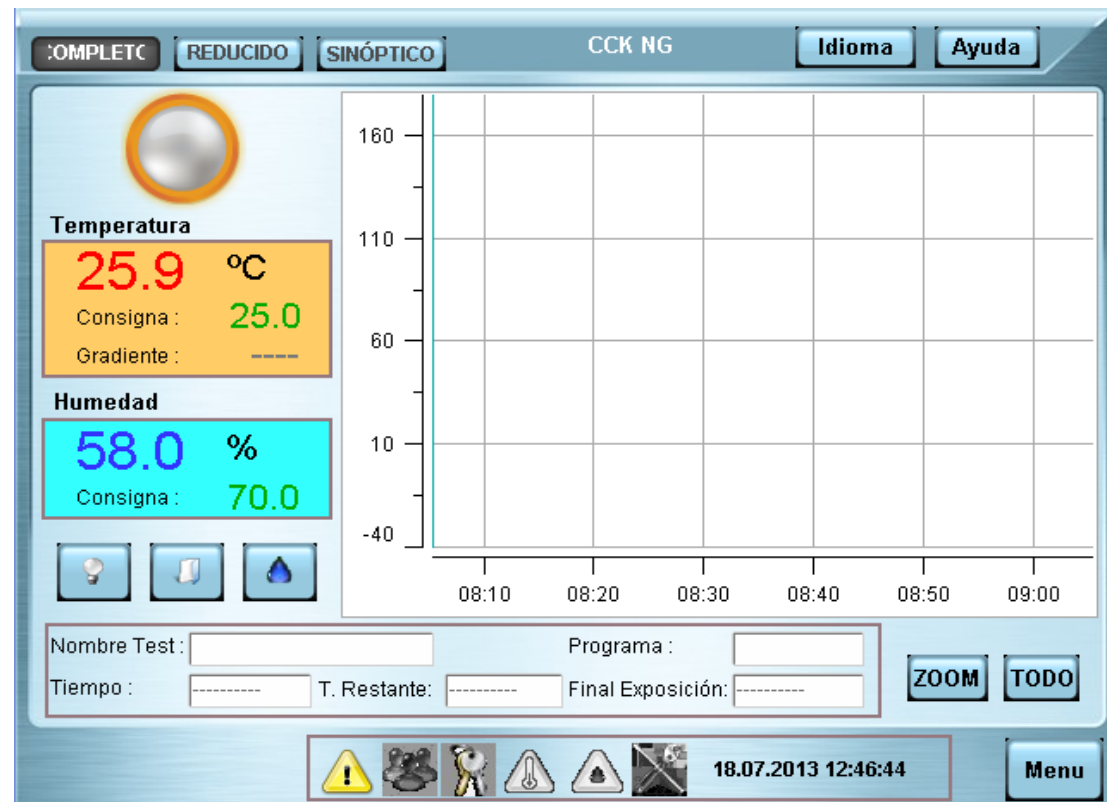


- 10" capacitive multitouch touch screen
- Storage capacity: 100 Gb
- Intel processor
- Android working environment
- 2 control loops (3rd loop optional to control auxiliary process variables)
- Analog/Digital coordination signals
- USB
- Ethernet
- Easy to use, friendly.

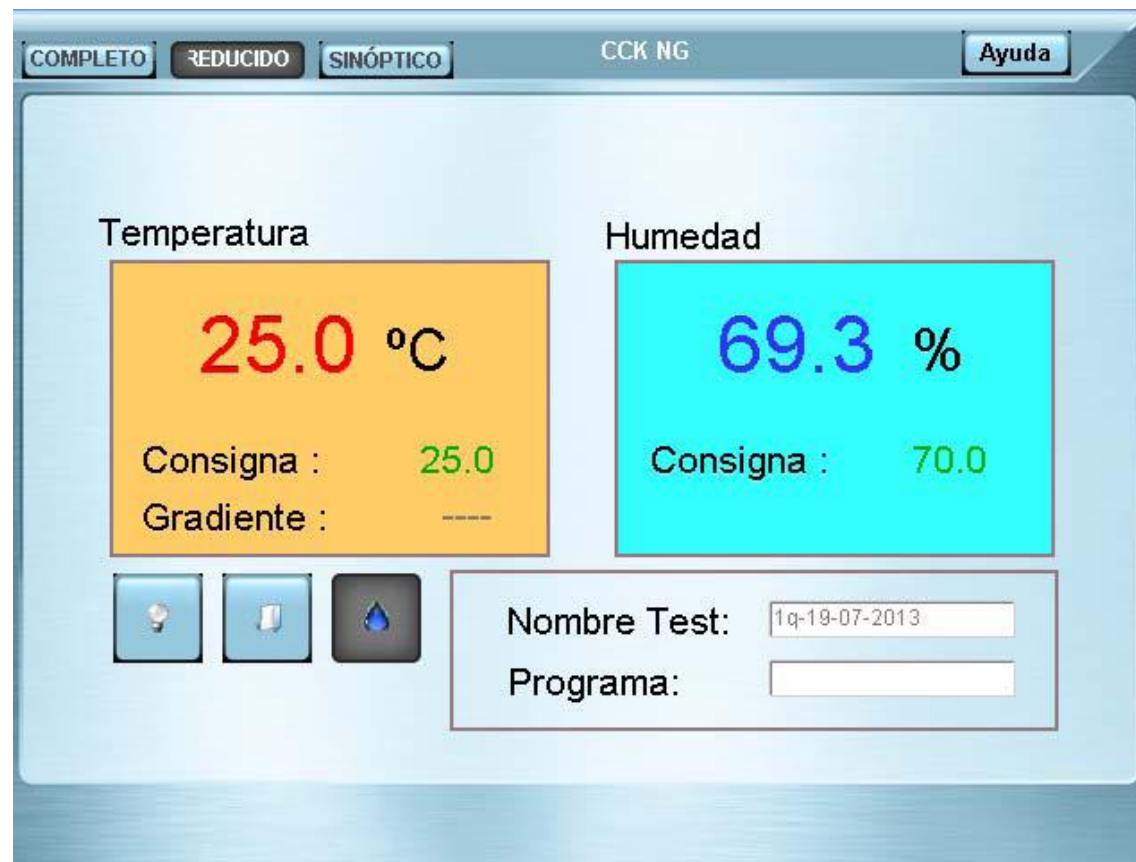


Two control systems:

1. Higher level control, for a complete control of the chamber



2. Lower level control, simplified and intuitive, for all type of users.



The screenshot displays the ACTTA CONTROL software interface. At the top, there are three tabs: 'COMPLETO', 'REDUCIDO' (which is selected), and 'SINÓPTICO'. To the right of these tabs is the text 'CCK NG' and a button labeled 'Ayuda'. The main area is divided into two columns. The left column is titled 'Temperatura' and features a large orange box with the text '25.0 °C' in red. Below this, it shows 'Consigna : 25.0' and 'Gradiente : ----'. The right column is titled 'Humedad' and features a large cyan box with the text '69.3 %' in blue. Below this, it shows 'Consigna : 70.0'. At the bottom left, there are three icons: a light bulb, a document, and a water drop. At the bottom right, there are two input fields: 'Nombre Test:' with the value '1q-19-07-2013' and 'Programa:' with an empty field.

Parameter	Current Value	Setpoint (Consigna)
Temperatura	25.0 °C	25.0
Humedad	69.3 %	70.0



- Select the working conditions for the manual test.

- Modify the setpoint temperature and humidity values by a numeric panel.

- Active the light of the chamber, open the door, even from a remote place.

- The system has dialogue boxes to confirm the door aperture or activation/deactivation of the humidity.



-Run one manual or programmed test. The user can run at the moment or at one programmed time. The user can modify or cancel the test during the running.



The screenshot displays the ACTTA CONTROL software interface, which is divided into two main panels. The left panel is for configuring a new test, and the right panel is for managing the execution of a test.

Left Panel (Configuration):

- Nombre de Ensayo Nuevo:** A text input field.
- Nombre del Fichero de Registro:** A text input field.
- Modo de Funcionamiento:**
 - Manual:** Selected with a radio button. It includes sub-controls for **T [°C]** (set to 25.0) and **HR [%]** (set to 70.0).
 - Automático:** Unselected with a radio button. It includes a **Programa:** dropdown menu.
- Arranque en Diferido:** A text input field set to 00h00m, with a label **Días / Horas / Minutos**.
- Buttons:** **ARRANCAR** (Start) and **CANCELAR** (Cancel).

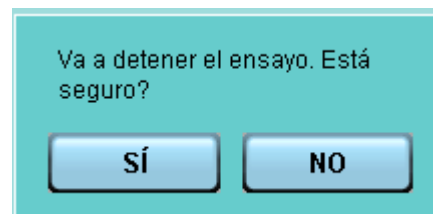
Right Panel (Execution):

- Cambiar fichero de Registro:** A section with a text input field showing **f-13-02-2014** and a **CAMBIAR FICHERO** button.
- Programa en ejecución:** A text input field showing **d5.csv**.
- Execution Controls:** Three buttons: a square stop button, a double vertical bar pause button, and a right-pointing triangle play button.
- Buttons:** **CANCELAR** (Cancel).

Bottom Panel (Confirmation):

- Cambiar fichero de registro:** A section with a text input field showing **p-18-07-2013** and a **CAMBIAR FICHERO** button.
- Buttons:** **PARAR** (Stop) and **CANCELAR** (Cancel).

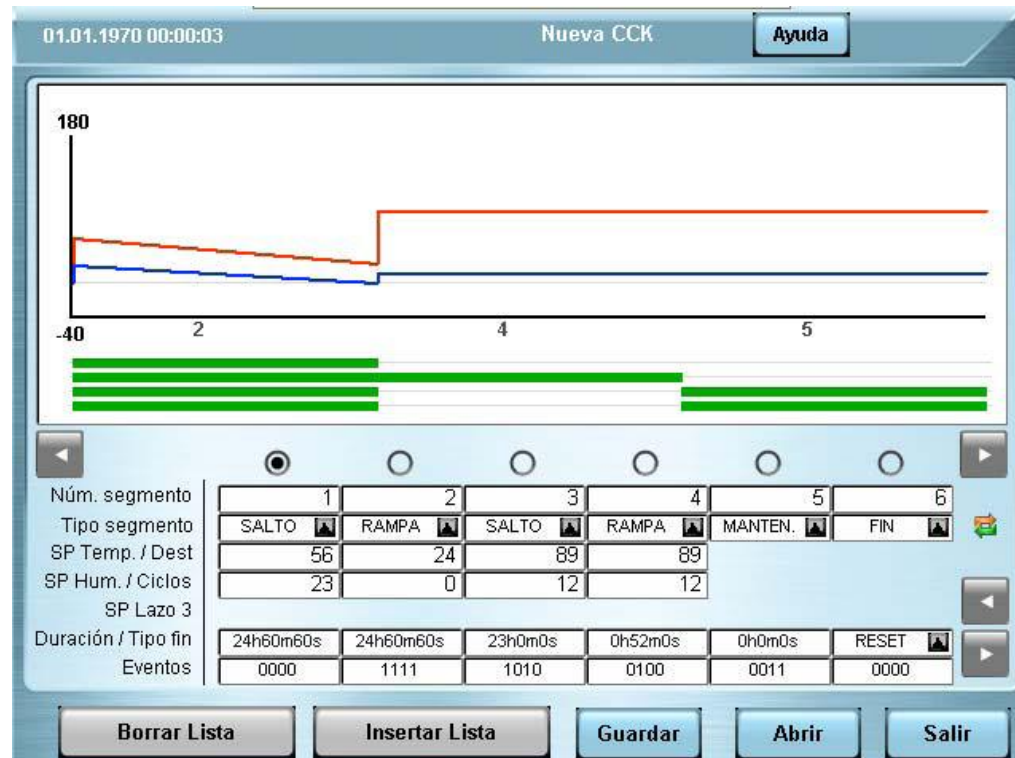
-To avoid the accidental stop, the program has dialogue box to confirm the stopping.



A small dialog box with a light blue background. It contains the text "Va a detener el ensayo. Está seguro?" (Are you sure you want to stop the test?). Below the text are two buttons: **SÍ** (Yes) and **NO** (No).



- Edit an existing program or create one new from zero.
- See the edited program.
- Storing in the equipment until 50 different programs. The user can export and store infinite programs externally, using the USB extraction.



- See the information of the running test.

Nombre Test :	<input type="text"/>	Programa :	<input type="text"/>
Tiempo	<input type="text"/>	Restante:	<input type="text"/>
			Fin: 13-02-2014 13:02:27

- See the test graph, with the zoom like you prefer.

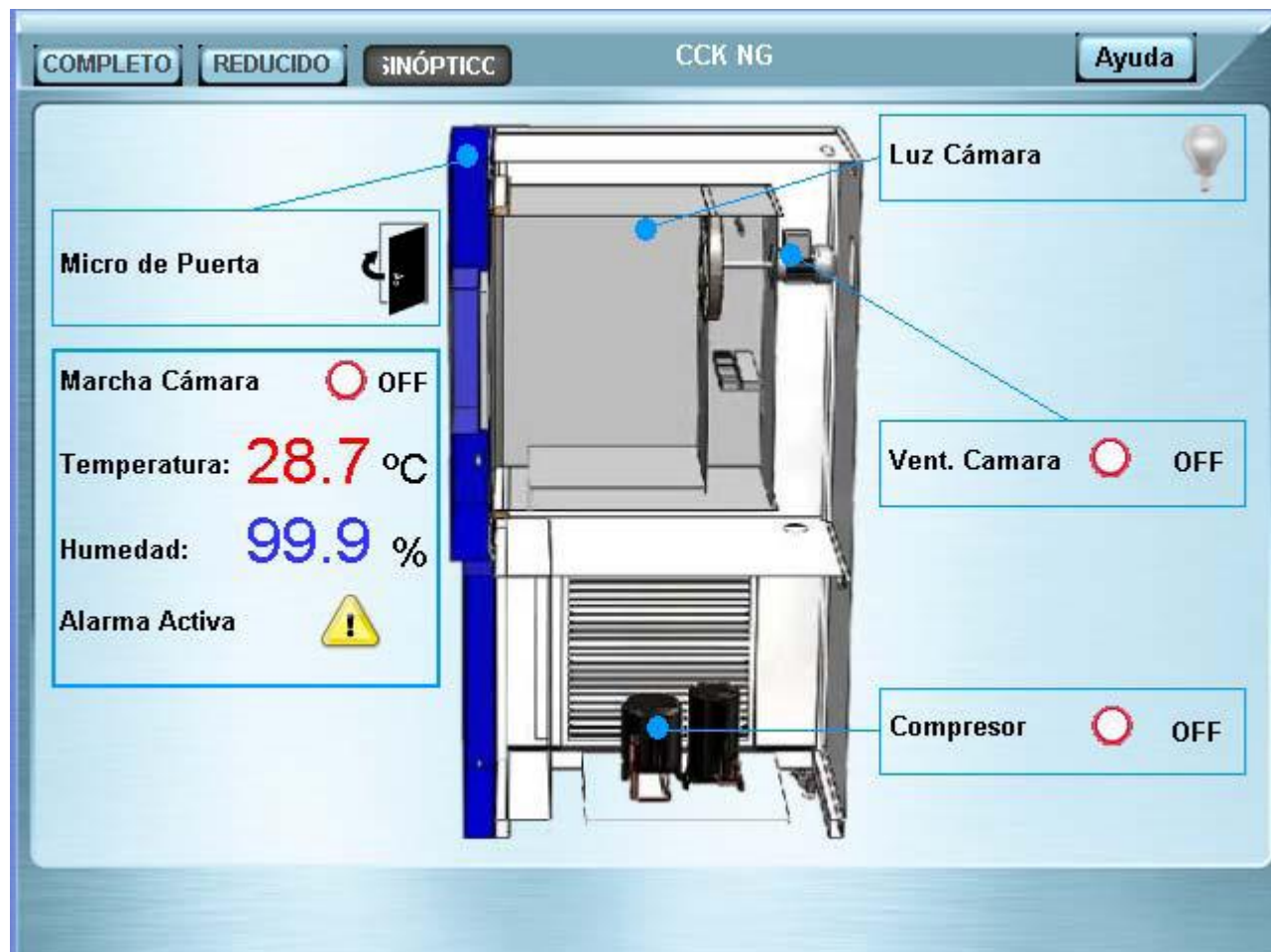


- See the active alarms (with specific indicators for the temperature and humidity alarms), the communication request with other users, the access user level and the date and time..





- See the state of the chamber, and which elements are active.



- See the active alarms and the previous alarms generated in the system.
- See the date and time when the alarms was produced.
- Alarms recognition function: the alarm will not go to the historic until the user confirm the reading.
- Detect the critic alarm quickly, depending on its color

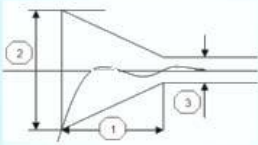


- Set the deviation limits test, depending of your needs
- Select the action to do, if it produce a deviation:
 1. Active not critical alarm which show an alert message.
 2. Active a critical alarm which show an alert message and stop the test.

24.07.2013 09:13:24
CCK NG
Ayuda

☒ **Límites en Estabilización y Mantenimiento**

Los límites inferiores y superiores se calculan según la siguiente figura



1- Duración estabilización: 1 Minutos

2- Límite Máx. Llegada: ± 0.0 °C

3- Límite Max. Estabilidad: ± 0.0 °C


Activar alarma si la temperatura está fuera del límite durante 0 Segundos


☒ **Límites en cambio de consigna**

La variación de la temperatura se controla periódicamente. Debe aproximarse a su punto de ajuste.

Control de variación de temperatura cada: 00 Minutos.

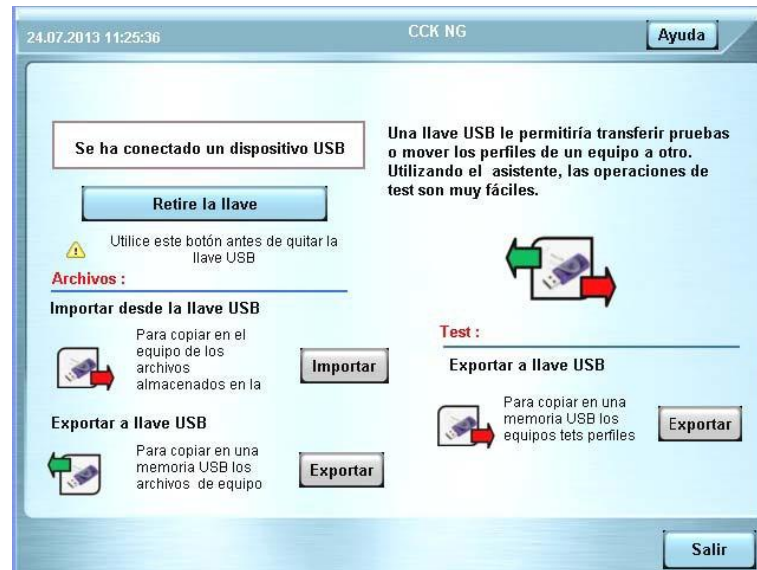
Gestión de alarmas

☒  Sólo resaltar el indicador de alarma de límites de regulación en el panel de control.

☐  Generar un fallo e interrumpir el ensayo.

Aceptar
Cancelar

- Copy with a USB flash drive, the stored tests and programs.
- Make security copies of the programs; modify them in your PC, and then upload in the chamber again.
- Copy all the information of the stored tests; or select one to copy.
- The programs and test are storing in .csv format; it's allow their editing and viewing with the most common spreadsheet.



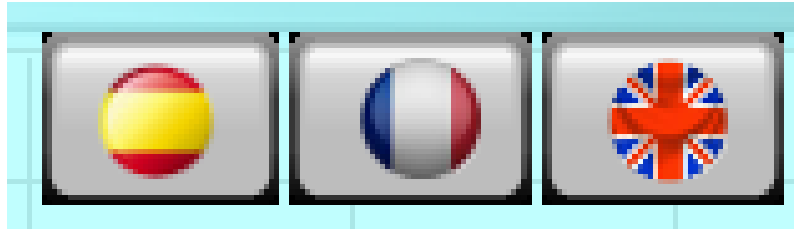
- See the system of the chamber from the screen or from a remote PC.
- Only one user can access to the chamber in higher levels, but the lower user, can see it, while the higher level works in the chamber.
- If it is necessary, ask to the higher level, access to the equipment in a higher level, by the communication system included in the equipment.

REMOTO:	<input type="text"/>	PEDIR COMUNICACIÓN
USUARIO:	<input type="text"/>	

- 4 access levels, each one with username and password, modifiable by the higher level user

Usuario :	<input type="text"/>
Contraseña :	<input type="password"/>

- The screen or the PC can be turn off, without stop the test.
- Available language: Spanish, English or French. (for other language, consult)



- Notification by email, if the chamber has any problem (OPTIONAL)



- Heated Window with Interior Light
- 2 Adjustable Shelves
- Access Port
- Casters / Silent blocks
- Main Power Disconnect Switch
- ACTTA Controller
- 100 Gb Hard Drive
- USB port
- Ethernet / RS-232 Interface
- System Monitor
- Manuals, drawing and CE mark





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