



TESTING

FITOCLIMA

S600 / D1200 PHCI

ENVIRONMENTAL TESTING CHAMBERS FOR CURING APPLICATIONS
(MORTAR, CEMENT, LIME AND PLASTER)

ASTM C511 Moist Cabinet





ARALAB is a company specialized in designing, developing, manufacturing and servicing of high quality climatic chambers and controlled environment rooms.

Since 1985 we have been perfecting ways to create and control temperature, humidity, light, air flow and many other environmental conditions.

Only the highest quality components are used to manufacture our chambers so customers can have the best equipment for their research and testing purposes.

Control the environment, your own climate.



KEY FEATURES












- Wide environmental performance ranges, enabling greater control of climatic conditions
- Optimal internal thermodynamics to ensure uniformity of climatic conditions
- Flexible, future proof chambers, designed for numerous applications
- Easy to use and maintain
- Nonpolluting construction and cooling
- Equipped with ClimaPlus touch-screen controller
- DIN, EN, IEC, ISO, MIL, NP and UNE compliant














Certified ISO:9001 for its Quality Management System

TECHNICAL SPECIFICATIONS AND PERFORMANCES

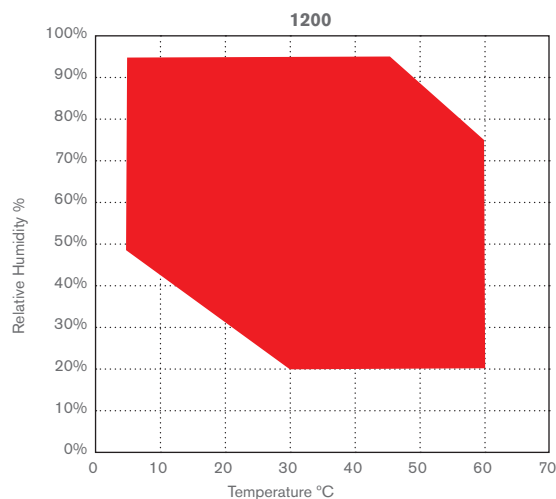
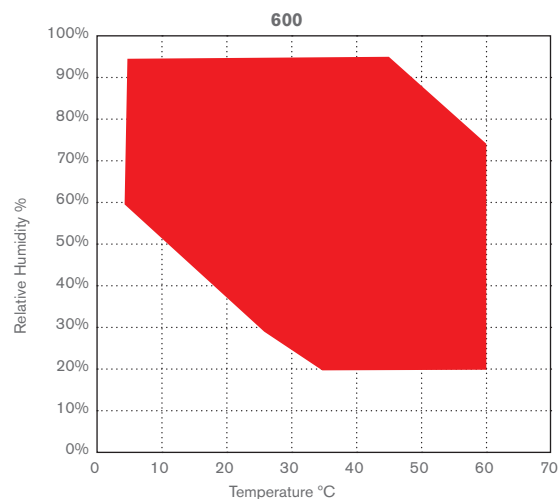
● ● ● ● FITOCLIMA 600 PHCI

TEMPERATURE RANGE		-5°C to 60°C
TEMPERATURE PRECISION		± 0,5 °C
TEMPERATURE FLUCTUATION		± 0,5 °C
TEMPERATURE UNIFORMITY		± 1,0 °C
HUMIDITY RANGE		35% to 98% RH
HUMIDITY PRECISION		± 1 % RH
HUMIDITY FLUCTUATION		± 2 % RH
HUMIDITY UNIFORMITY		± 2 % RH
SHELVES		4 shelves with 510mm x 640mm (up to 8 can be fitted)
VOLUME		543 liters
ELECTRICAL SUPPLY		230V ± 10%; 50Hz; 5 Amp.

● ● ● ● FITOCLIMA 1200 PHCI

TEMPERATURE RANGE		-5°C to 60°C
TEMPERATURE PRECISION		± 0,5 °C
TEMPERATURE FLUCTUATION		± 0,5 °C
TEMPERATURE UNIFORMITY		± 1,0 °C
HUMIDITY RANGE		35% to 98% RH
HUMIDITY PRECISION		± 1 % RH
HUMIDITY FLUCTUATION		± 2 % RH
HUMIDITY UNIFORMITY		± 2 % RH
SHELVES		8 shelves with 510mm x 640mm (up to 16 can be fitted)
VOLUME		1.194 liters
ELECTRICAL SUPPLY		230V ± 10%; 50Hz; 7 Amp.

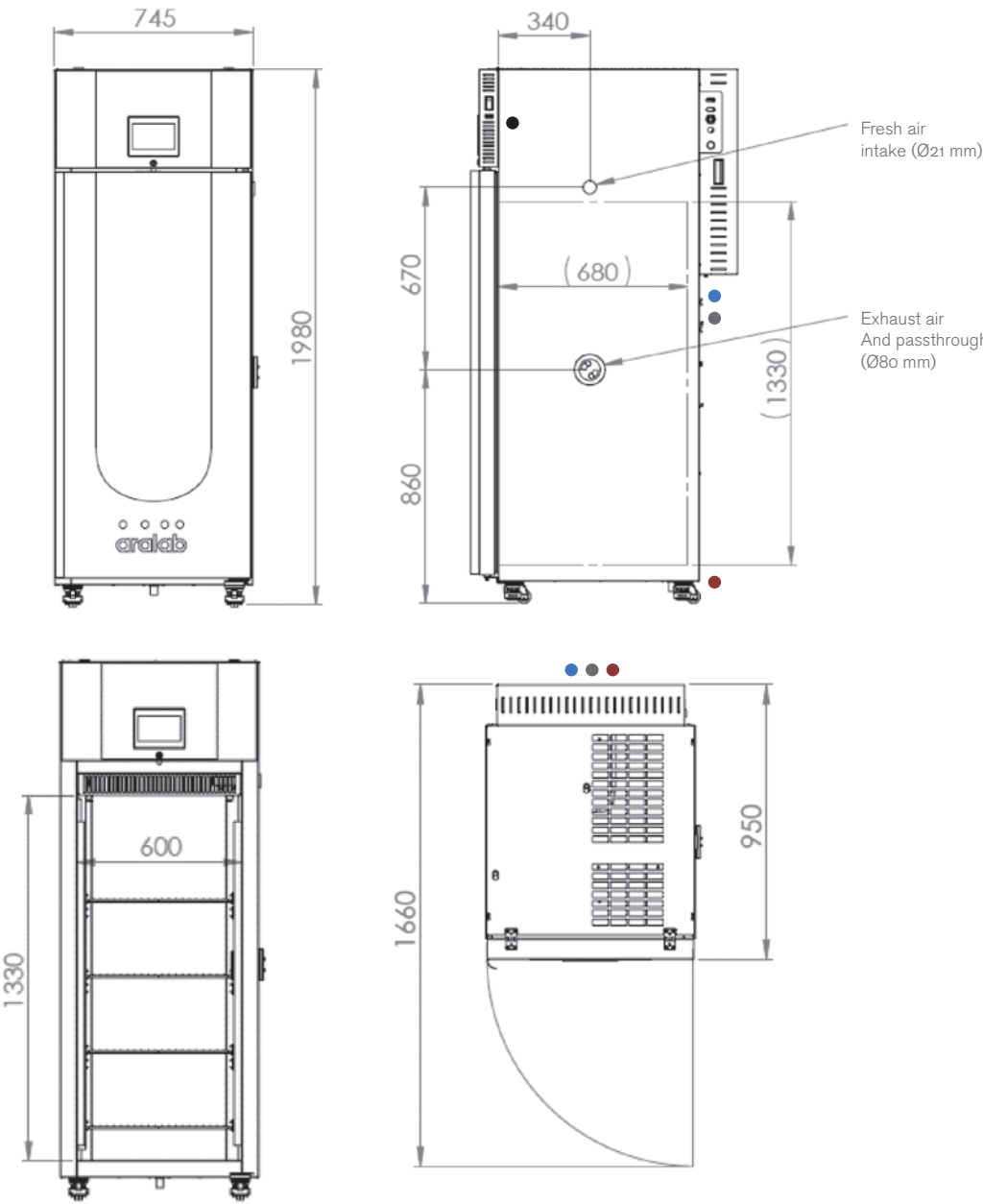
● ● ● ● TEMPERATURE & HUMIDITY WORKING RANGE



DIMENSIONS AND DRAWINGS

FITOTERM / FITOCLIMA 600

EXTERNAL DIMENSIONS (HxWxD) (mm)		1.980 x 745 x 950
INTERNAL DIMENSIONS (HxWxD) (mm)		1.330 x 600 x 680



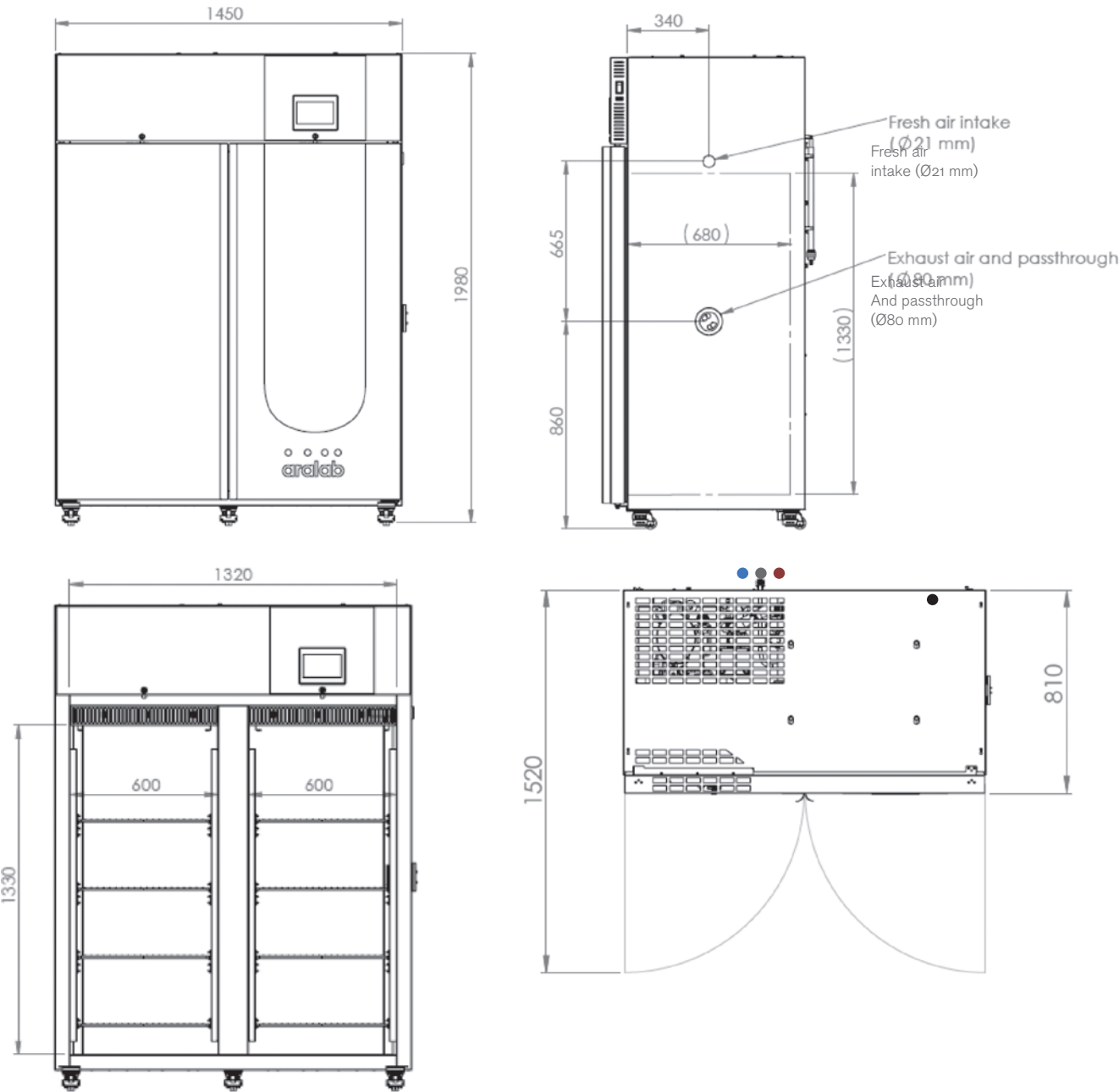
- 1. Standard refrigeration system is air cooled
- 2. Services hub installation needs:
 - 1/2" demineralized water supply
 - 50mm water drain at floor level




- 3. Electrical cabinet installation needs:
 - Supply power: 230VAC, 50Hz, 16A / Single Phase + Neutral + Ground
 - Electrical protection: Circuit breaker 16A + N with 300mA differential
 - RJ45 communication port


DIMENSIONS AND DRAWINGS

FITOTERM / FITOCLIMA 1.200

EXTERNAL DIMENSIONS (HxWxD) (mm)		1.980 x 1.450 x 810
INTERNAL DIMENSIONS (HxWxD) (mm)		1.330 x 1.320 x 680



- 1. Standard refrigeration system is air cooled
- 2.  Services hub installation needs:
 -  ½" demineralized water supply
 -  50mm water drain at floor level

- 3. Electrical cabinet installation needs:
 - Supply power:
230VAC, 50Hz, 16A / Single Phase + Neutral + Ground
 - Electrical protection: Circuit breaker 16A + N with 300mA differential
 -  RJ45 communication port

EQUIPMENT DESCRIPTION



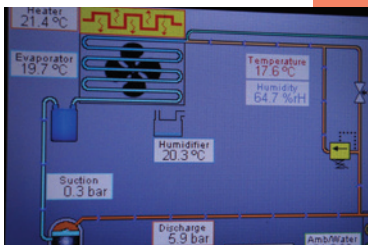
CONSTRUCTION & CONTROL

- Multi-color 7-inch touch-screen ClimaPlus© controller
- Open door alarm with configurable time-out function
- Highly resistant stainless-steel interior with white reflective coating
- Polyurethane insulation
- Exterior zinc plated steel and gray epoxy paint
- Pivoting door(s) with spring lock, magnetic gasket and safety lock(s)
- 4 and 5 built-in casters brakes
- 80mm Ø side entry port



ENVIRONMENTAL CONTROL

- Air-cooled, CFC free, mechanical refrigeration by hermetic compressor
- Dual heating technology with hot gas by-pass and stainless steel electric heaters
- Humidification with clean steam generator, allowing for accurate, long lasting and easy maintenance operations
- Dehumidification by condensation on the cooling system evaporator
- Models with 'Temperature and Humidity control' are equipped with Vaisala capacitive sensors; models with 'Temperature control only' are equipped with Resistive NTC sensor
- Air renovation through adjustable lateral port-holes
- Uniform air flow of approximately 0.2m/s across all shelves
- Airflow speed adjustable on the ClimaPlus® controller



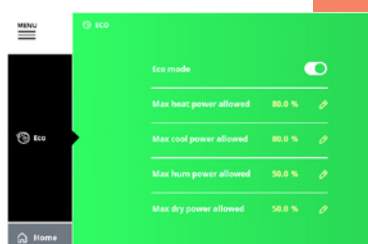
RESEARCH PROTECTION AND AUTOMATIC DIAGNOSTICS

- Independent thermostats for maximum and minimum temperature limits
- Automatic cut-off function, in case of excessive heating or cooling
- Configurable maximum and minimum temperature and humidity limits
- Visual and audible alarms for temperature and humidity limits
- Synoptic: a self-diagnostics tool that checks all active components of the system allowing for faster procedures and minimizing any possible downtimes



BUILT-IN DECONTAMINATION

- Heat Decontamination sets temperature to 60°C and other functions are disabled. Duration can be set manually as different contaminations can require custom durations.
- Hydrogen Peroxide bio-decontamination capable: FitoClima 600 / 1200 are resistant to H₂O₂ and now have a bio-decontamination function (only available through Aralab Service Teams) allowing the connection of a H₂O₂ atomizer system developed by Aralab.

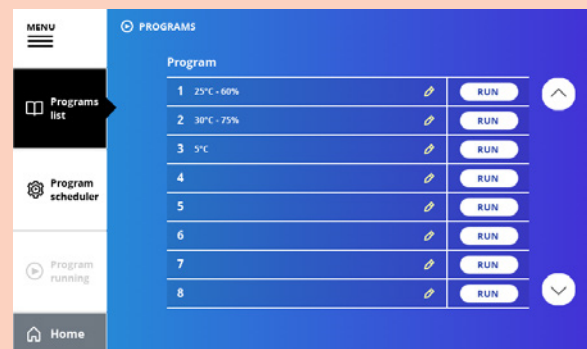
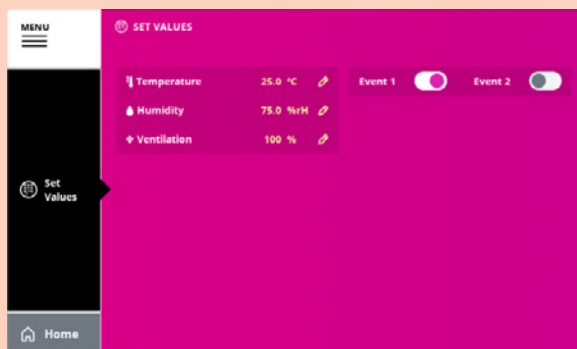


ECO MODE

- The ECO Mode button turns on new power saving features
- By decreasing some power related activities (depending on set-point conditions), the energy consumption can decrease, translating in cost savings

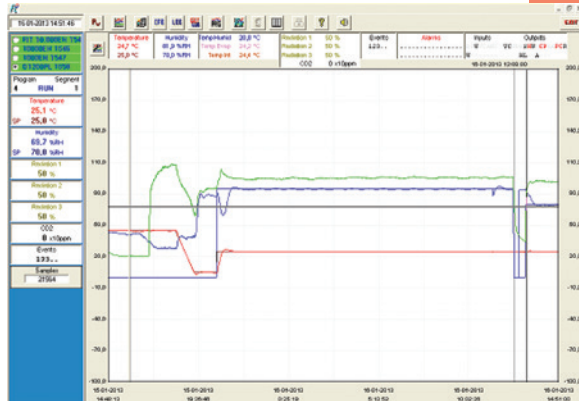
CLIMAPLUS CONTROLLER

- Programmable Logic Controller exclusively developed by Aralab for FitoClima chambers
- Easy to use touch-screen interface
- 190mm x 150mm multicolor display
- Controls every environmental variable available for any specific FitoClima model (Temperature, Humidity, Lights, Airflow, CO₂, and connected external devices)
- Friendly program editor for creating 32 programs of 24 segments each, allowing the design of complex and comprehensive climatic simulation programs
- Password protection of the controller functions
- Content and research protection feature, with configurable High and Low Temperature and Humidity alarms and automatic notifications
- Managing, monitoring and recording of all alarms
- Non-volatile memory, allowing the automatic restart of previously defined set-points or on-going programs due to power failure, without losing data
- Real-time monitoring of all the functions and active components of the equipment, allowing for a fast and accurate diagnostic in case of malfunction
- Possibility to control and program events by external commands and with external devices
- Graphical view of programs and climatic variables
- Ethernet and Wi-Fi for connecting computers to the controller
- ClimaPlus controller functions also available at the PC/Laptop with the FitoLog software pack



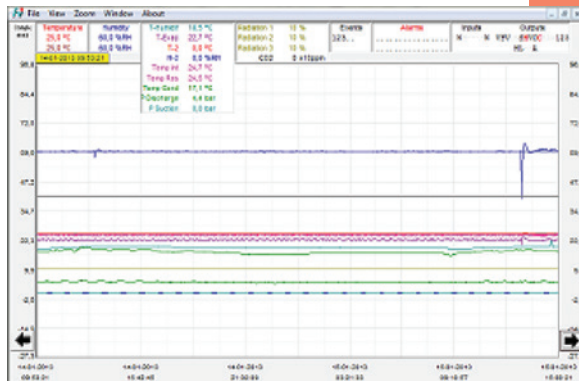
FITOLOG SOFTWARE

The FitoLog software pack is a set of applications designed to facilitate the managing, monitoring and recording of programs and data from the FitoClima chambers. It consists of 3 applications: **FitoLog**, **FitoLogView** and **FitoProgram**.



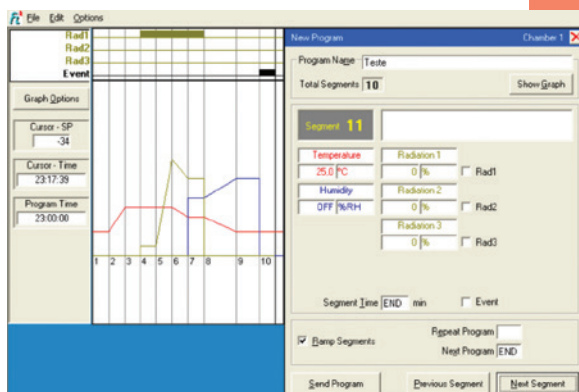
FITOLOG

Records and displays in real time all data and details related to the set-points, running variables and equipment behaviour. It also retrieves information about the active components of the chamber, running processes, errors, alarms and allows the configuration of periodic or alarm triggered remote notifications (by email or SMS, depending on existing connections and accessories).



FITOLOGVIEW

It is a working tool to process the data recorded by the FitoLog program. One can view, print and export the log contents to other file types, and analyse the data in other data management software (Excel, Star Office, Access or others).



FITOPROGRAM

This application simplifies the creation of programs and its integration on the chamber ClimaPlus controller. Up to 32 programs, each with 24 segments, can be designed and linked to create detailed environmental profiles and simulations.

CONTENT OF THE CHAMBER IS SECURED WITH ALARMS, NOTIFICATIONS, FAST DIAGNOSTICS AND PROMPT TROUBLESHOOTING

With FitoLog it is possible to gather data from each of the chambers systems, which makes it a very useful tool to diagnose any necessary maintenance. This tool works as the "black box" of the equipment, giving Aralab technicians the necessary data to remotely carry out a fast and efficient diagnostic. All that is needed is a FitoLog file.

ACCESSORIES

OPTIONAL ACCESSORIES

FitoLog / FitoView software for data monitoring, logging and programs configuration on the PC

Ethernet cable for PC connection

CO2 Controlling and monitoring system

Wall mounting conductivity meter, for water quality control, with assembling accessories

Water Demineralizer

20 liter water tank with electric pump and security valve

Glass door with double glazing

Additional Stainless steel wire shelves

Reinforced shelves for heavy samples

ACCESSORY FOR ACCELERATED RADIATION AGING

8 fluorescent and UV lamps

ACCESSORY FOR CARBONATION

CO2 Controlling and monitoring system

Reading range: 0 to 30% or up to 5.000 PPM

Cell: Infrared gas analyzer

Precision: $\pm 2\%$ of the scale or $\pm 0,2\%$ CO2

Exit: analogical for 4 ... 20mA logging

Electrical supply: 240 V, 50 Hz

Features and specifications are subject to change. Aralab continuously studies ways to further develop its products to achieve better performances and overall product quality. As a result, characteristics and specifications provided in this document may be subject to changes.

Let's meet!

aralab@aralab.pt

www.aralab.pt

T: +351 219 154 960



[f/AralabChambers](#)

[in/company/aralab](#)

[v/user/AralabChambers](#)

[t/Aralab_](#)

[@aralabchambers](#)



Control the environment

Your own climate