

TESTING

ENVIRONMENTAL TESTS IN INDUSTRY



Industries like automotive, aeronautics, space, electronics, building materials and many others depend on Environmental Simulation for a wide range of tests. If you are looking for the right partner in industry testing here is why **Aralab** is the name to catch:

- The most advanced technology in climate control
- Internal Aerodynamic optimization to ensure uniformity of climatic conditions
- Nonpolluting construction and cooling system
- High performance temperature (resolution of 0.1°C) and humidity control (resolution 0.1%)
- Equipped touch-screen CLIMAPLUS controller exclusively developed for aralab chambers
- Reduced investment, low maintenance, reliable and accurate performance
- Compliant with international standards and requirements EN, IEC, DIN, ISO, NP and UNE
- Technical assistance and after sales care wherever you are
- 25 years experience in projects for different industries, cultures and geographies
- Best price-quality relationship of the global market



"We do not sell just to make another sale. We don't sell anything without understanding first what the customer really needs."

Alberto Araújo
International Sales Manager



STABILITY TESTS

STABILITY TESTS IN PHARMACEUTICAL,
COSMETICS OR FOOD PRODUCTS



If your work depends on climatic stability or photostability tests, either on pharmaceutical, cosmetics or food products, here is why **Aralab** chambers can improve your life:

- ICH Stability
- Climatic Stability
- The most advanced technology in climate control with ultrasonic generator and capacitive sensor
- Internal Aerodynamic optimization to ensure uniformity of climatic conditions
- Nonpolluting construction and cooling system
- Silent functioning
- Equipped with digital CLIMAPLUS controller with customizable alarms and software for data logging in accordance with FDA 21 CFRpart.11
- Compliant with international standards and requirements ICH, DIN, EN, IEC, ISO, NP and UNE
- IQ, OQ and PQ qualifications and ISO 17025 calibration
- Reduced investment, low maintenance, reliable and accurate performance
- Technical assistance and after sale care wherever you are
- 25 years experience in pharma projects for different cultures and geographies
- Best price-quality relationship of the global market

"I've been using Aralab stability chambers for 20 years now. Previous brand? I can remember the breakdown, but can not remember the name. Aralab technical team went to my lab and fixed it even though it was not their chamber. That is how I met them"

Isabel Lemos
Edol



BIOTECH

BIOLOGICAL GROWTH & BIOTECHNOLOGY



Plant growth, tissue culture, arabidopsis research, entomology, seeds dehydration or germination. If your work relies on climatic chambers for any of these areas, here is why we should meet:

- Flexible, future proof climatic chambers, designed for numerous applications
- Wide environmental performance ranges, enabling greater control of climatic conditions
- Optimal internal thermodynamics to ensure uniformity of climatic conditions
- Modular design, allowing different testing requirements
- Easy to use and maintain
- Nonpolluting construction and cooling
- Equipped with climaplus specific designed controllers
- DIN, EN, IEC, ISO, MIL, NP and UNE compliant
- Technical assistance and after sale care wherever you are
- 25 years experience in biotech projects for different cultures and geographies
- Best price-quality relationship of the global market



"Any equipment and brand has failures. A week of breakdown in my field means losing 8 months of work. Aralab shows up on the same day or the following and solves the problem, even if it means improvising a solution with any available tools at hand. They can do it!"

José Ramalho
Coffee Rusts Researcher (IICT)

Monitor and manage, wherever you are.



“Some customers choose our chambers because they had problems with the previous equipment they were using. When they start using our chambers they say "this is so much better than we thought”.”

Xavier Fernandes
Aralab Spain



CLIMAPLUS CONTROLLERS

All **Aralab** chambers are equipped with a ClimaPlus controller. This equipment is specially created by **Aralab** and uses dual microprocessor technology for controlling, monitoring and registering all operating data.

- Programmable PLC ClimaPlus
- Real-time monitoring of all functions and control of equipment
- Configuration and management of multiple testing programs, each with multiple segments
- Non-volatile memory
- 0,1°C temperature resolution
- 0,1% HR humidity resolution
- Management, monitoring and recording of all alarms
- Possibility of performing specific testing conditions by external commands
- Possibility of programming a delay of the beginning of test
- Automatic restart of tests due to power failure, without losing data and restarting test where it was interrupted
- Different outputs for connecting computers and other devices
- Graphical visualization of the test in the controller
- Password protection of controller functions.



MONITORING AND VISUALIZATION SOFTWARE

The **FitoLog** software is a set of applications designed to monitor and register data from the chambers processes variables for the pharmaceutical industry. This software - an **Aralab** exclusive solution - consists of 3 applications: **FitoLog**, **FitoView** and **FitoProgram**.

- **FitoLog**: Displays and records in real time all data and details of the measures and respective set-points in a file, with a pre-determined time interval. It also acquires the data of process variables, errors, alarms and allows external alerts configurations which may include Email or SMS to report the condition of the equipment or warning of alarm conditions.
- **FitoView**: It is a working tool to process the data acquired by FitoLog. You can view, print and export to other file types, and analyze the data in other programs (Excel, Access or others).
- **FitoProgram**: This application allows the designing of test programs and its integration on the chamber controller.

BIOTECH	600 P / PH / PL / PLH / PDH ^[1]	1.200 P / PH / PL / PLH ^[1]	WALK-IN 10.000 EH	700	WALK-IN 10.000 EHHF
INTERNAL DIMENSIONS (HxWxD) (mm)	1340 x 600 x 660	1340 x 1320 x 660	2030 x 2000 x 3200 ^[2]	1000 x 900 x 780	1970 x 3300 x 1600 ^[2]
EXTERNAL DIMENSIONS (HxWxD) (mm)	1980 x 730 x 920	1980 x 1450 x 810	3000 x 3860 x 2210 ^[2]	2000 x 1570 x 1020	2750 x 4000 x 2450 ^[2]
INTERNAL VOLUME (Liters)	600	1200	10.000 ^[2]	700	10.000 ^[2]
TEMPERATURE RANGE	LIGHTS ON LIGHTS OFF	5 to 45°C -5 to 45°C	5 to 45°C 0 to 45°C	5 to 50 °C 2 to 50°C	5 to 45°C 0 to 45°C
TEMPERATURE STABILITY			± 0.5°C		
TEMPERATURE UNIFORMITY			± 1°C		

	600 P / PH / PL / PLH / PDH ^[1]	1.200 P / PH / PL / PLH ^[1]	WALK-IN 10.000 EH	700	WALK-IN 10.000 EHHF
HUMIDITY RANGE	LIGHTS ON LIGHTS OFF	50 to 85% RH 40 to 95% RH	50 to 85% RH 40 to 95% RH	50 to 80% RH 40 to 90% RH	30 to 90% RH 30 to 95% RH
HUMIDITY STABILITY		± 1% RH	± 1% RH	± 2% RH	± 1% RH
HUMIDITY UNIFORMITY			± 2% RH		
LIGHTING ^[4]		0 to 650µE / m2s per shelf @ 150mm from light @ 25°C		1200 µE / m2s @ 150mm from light @ 25°C	
SHELIVING / STORAGE (m2) ^[4]	3 shelves / 1,3m2	6 shelves / 2,7m2	12 shelves / 9m2	1 shelf / 0,8m2	1 shelf / 5m2
ELECTRICAL CONNECTION	1/N/PE AC 230V 10%; 50Hz	1/N/PE AC 230V 10%; 50Hz	3/N/PE AC 400V 10%; 50Hz	1/N/PE AC 230V 10%; 50Hz	3/N/PE AC 400V 10%; 50Hz

STABILITY	600 PH	600 PLH	1.200 PH	WALK IN 25.000 PHARMA
INTERNAL DIMENSIONS (HxWxD) (mm)	1340 x 600 x 660	1340 x 600 x 660	1340 x 1320 x 660	2400 x 3600 x 3200 ^[3]
EXTERNAL DIMENSIONS (HxWxD) (mm)	1980 x 730 x 920	1980 x 730 x 920	1980 x 1450 x 810	2650 x 3810 x 3410 ^[3]
INTERNAL VOLUME (Liters)	600	600	1.200	25.000 ^[3]
TEMPERATURE RANGE			5°C to 45°C	
TEMPERATURE STABILITY			± 0,5°C	
TEMPERATURE UNIFORMITY			± 1°C	

	600 PH	600 PLH	1.200 PH	WALK IN 25.000 PHARMA
HUMIDITY RANGE		30 to 95% RH		30 to 85% RH
HUMIDITY STABILITY			± 1% RH	
HUMIDITY UNIFORMITY			± 2% RH	
ICH COMPLIANCE	Stability Q1A	Stability & Photostability Q1A & Q1B	Stability Q1A	Stability Q1A
SHELIVING / STORAGE (m2)	4 shelves / 1,3 m2	2 shelves / 0,7m2	8 shelves / 2,6m2	5 shelves / 35m2
ELECTRICAL CONNECTION		1/N/PE AC 230V ± 10%; 50Hz		3/N/PE AC 400V ± 10%; 50Hz

TESTING	300	500	1.000	1.500	WALK-IN 8.000
INTERNAL DIMENSIONS (HxWxD) (mm)	800 x 650 x 600	920 x 700 x 780	1000 x 1000 x 1060	1000 x 1000 x 1560	2000 x 2000 x 2000 ^[2]
EXTERNAL DIMENSIONS (HxWxD) (mm)	1830 x 990 x 1340	1950 x 1040 x 1530	2030 x 1340 x 2330	2030 x 1340 x 2330	2700 x 2300 x 3380 ^[2]
INTERNAL VOLUME (Liters)	300	500	1.000	1.500	8.000 ^[2]
PERFORMANCE FOR TEMPERATURE TESTS					
TEMPERATURE RANGE	From -10°C, -20°C, -45°C and -75°C up to 180°C				
TEMPERATURE CHANGING RATE COOLING	From 1°C to 10°C / minute				
TEMPERATURE STABILITY	± 0,5°C				
TEMPERATURE UNIFORMITY	± 0.3°C to ± 1.5°C				

	300	500	1.000	1.500	WALK-IN 8.000
PERFORMANCE FOR CLIMATIC TESTS					
TEMPERATURE RANGE	10 to 95°C				
HUMIDITY RANGE	10 to 98% RH				
HUMIDITY STABILITY	± 2% RH				
HUMIDITY UNIFORMITY	± 2% RH				
ELECTRICAL CONNECTION	3/N/PE AC 400V ± 10%; 50Hz				

[1] S600 & D1200 P Temperature only / S600 & D1200 PH Temperature and Humidity / S600 & D1200 PL Temperature and Radiation / S600 & D1200 PLH Temperature, Radiation and Humidity / S600 & D1200 PDH Temperature and Low Humidity levels

[2] other walk-in sizes available

[3] other walk-in sizes available (5.000 and 10.000 liters of internal volume)

[4] other lights and shelving options available