BIO

FITOCLIMA
600 PDH

ENVIRONMENTAL CHAMBER SPECIALLY DEVELOPED FOR REACHING LOW HUMIDITY LEVELS FOR SEEDS STORAGE AND OTHER DRYING APPLICATIONS

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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.

FitoClima Bio chambers provide the control and flexibility to meet the evolving needs of researchers and research requirements through time.

COMMON APPLICATIONS INCLUDE

- PLANT GROWTH
- TISSUE CULTURE / IN-VITRO
- ARABIDOPSIS
- GERMINATION
- ALGAE RESEARCH
- ENTOMOLOGY
- INSECT REARING
- OTHER LIFE SCIENCES APPLICATIONS

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

- Modular design, allowing different testing requirements

- 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
Certified ISO:14001 for its Environmental Management System

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ENVIRONMENTAL CHAMBER SPECIALLY DEVELOPED FOR REACHING LOW HUMIDITY LEVELS

LOW HUMIDITY / DRYING CHAMBER

With Aralab highly advanced drying system, these chambers guarantee an unsurpassed stability of cool and dry conditions, making them perfect for drying purposes. The PDH chambers maintain their flexibility by allowing a wide temperature range for other demands and future needs.

TECHNICAL SPECIFICATIONS

● ● ● ● **TECHNICAL DATA FOR FITOCLIMA 600 PDH**

TEMPERATURE RANGE		5ºC to 30ºC
STABILITY		± 0,5 °C
UNIFORMITY		± 1,0 °C
HUMIDITY RANGE		Ambient down to 5% RH
STABILITY		± 1 % RH
UNIFORMITY		± 2 % RH
SHELVES INCLUDED (620m x 510m)		5
ADDITIONAL SHELVES (optional)*		+5 (up to 10 shelves total)

*Consult available accessories

● ● ● ● **TEMPERATURE & HUMIDITY WORKING RANGE**

PDH chambers are capable to lower relative humidity concentrations from ambient conditions dow to 5%
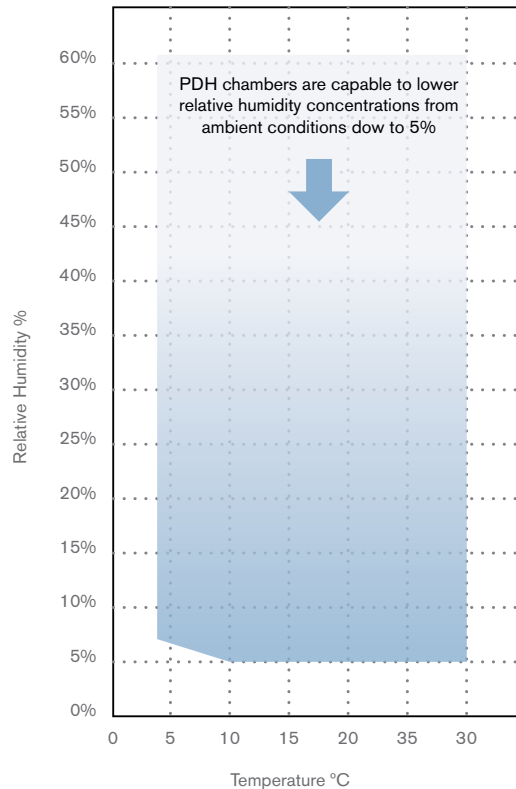
DIMENSIONS AND DRAWINGS

● ● ● ● **FITOCLIMA 600**

EXTERNAL DIMENSIONS (HxWxD) (mm)		1.980 x 745 x 980
INTERNAL DIMENSIONS (HxWxD) (mm)		1.330 x 600 x 680

745

1980

340

670

(680)

860

(1330)

Fresh air
intake (Ø21 mm)

Exhaust air
And passthrough
(Ø80 mm)

600

1330

980

1660
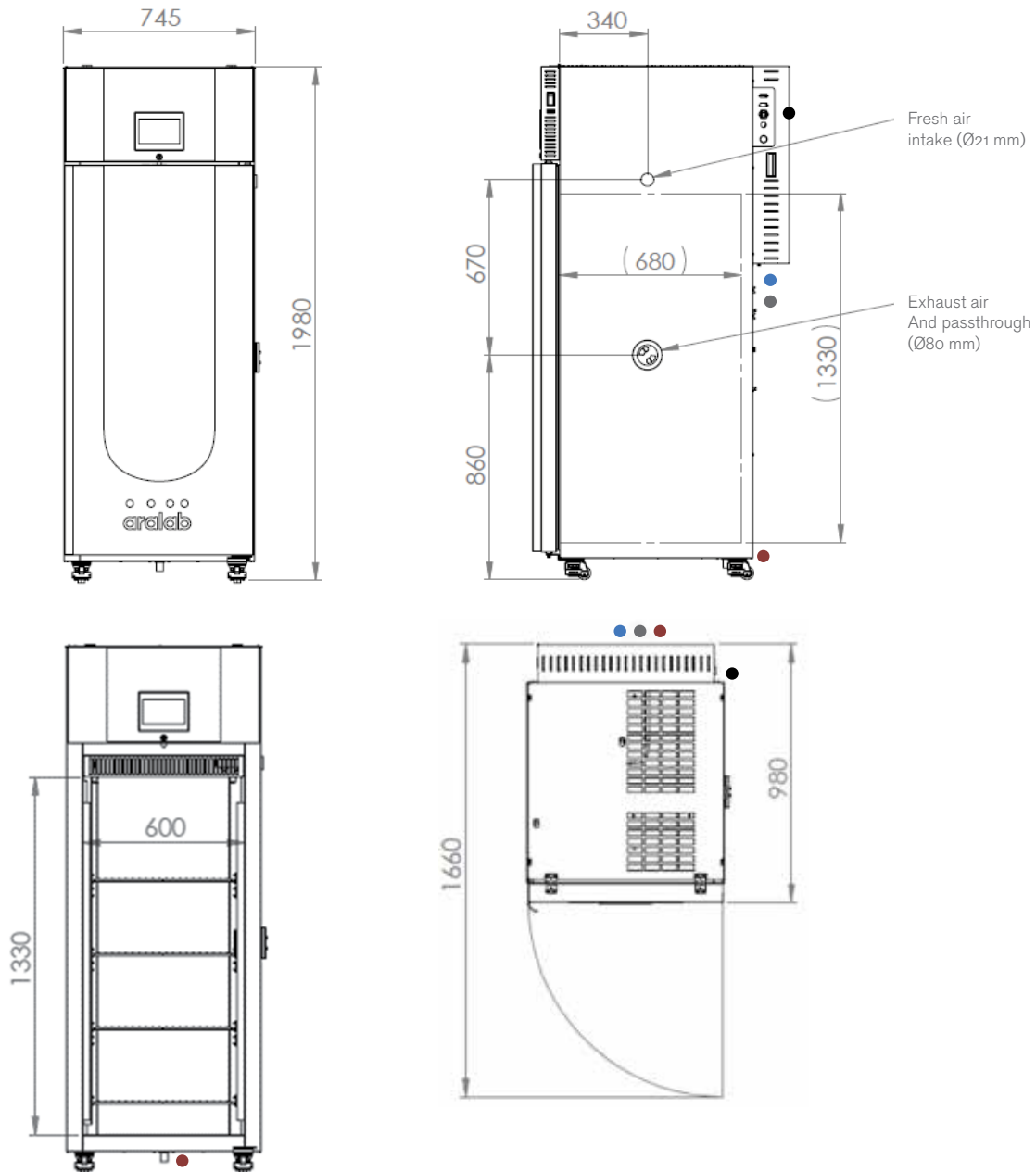
1.   Standard refrigeration system is air cooled
2. ●   Services hub installation needs:
   - ●   ½" demineralized water supply
   - ●   50mm water drain at floor level

3.   Electrical cabinet installation needs:
   Supply power: 230VAC, 50Hz, 5A / 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
- Dehumidification by condensation on the cooling system evaporator and air bypass for additional drying capacity
- 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

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

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CLIMAPLUS CONTROLLER HMI

- Programmable Logic Controller exclusively developed by Aralab for FitoClima chambers

- Easy to use touch-screen interface

- 90mm x 155mm (7 inch) 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, Low and Band 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

- Secure Remote Access through ClimaPlus VNC Server

- Ethernet port for connecting logging computer to the chamber 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.

RESEARCH 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.

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Configure your
FitoClima
chamber

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Control the environment
Your own climate