YOUR OWN CLIMATE

TESTING

Environmental and Temperature Testing Chambers

ARALAB

ARALAB is a company specialized in designing, developing, manufacturing and servicing of **environmental 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.

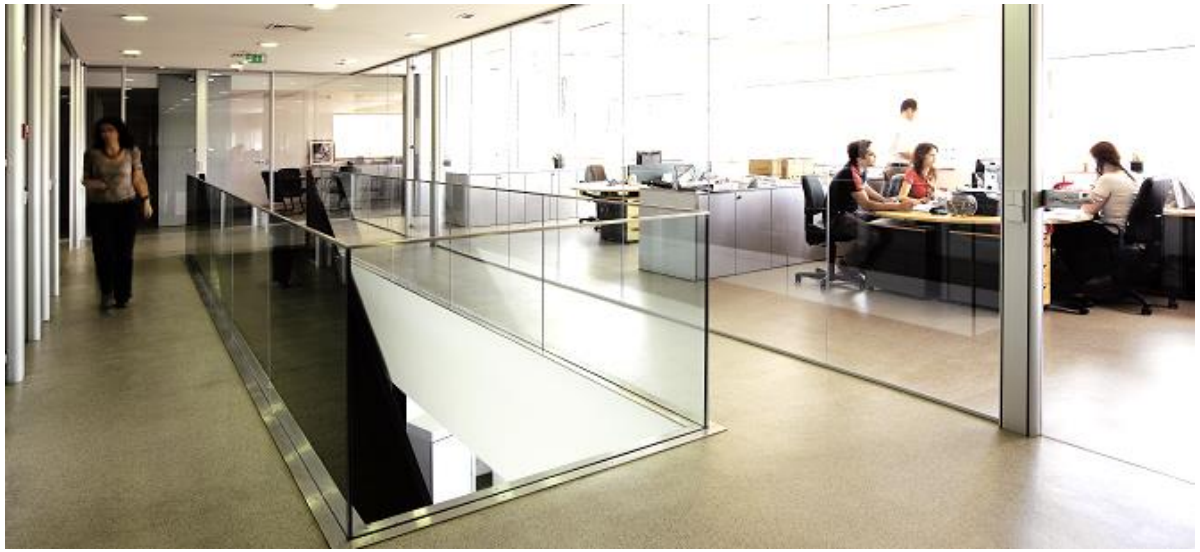
What drives us is simple: to develop solutions that go beyond the expectations of users so customers can enjoy the **best equipment for their research and testing applications.**

aralab

YOUR OWN CLIMATE

ISO 9001 BUREAU VERITAS Certification

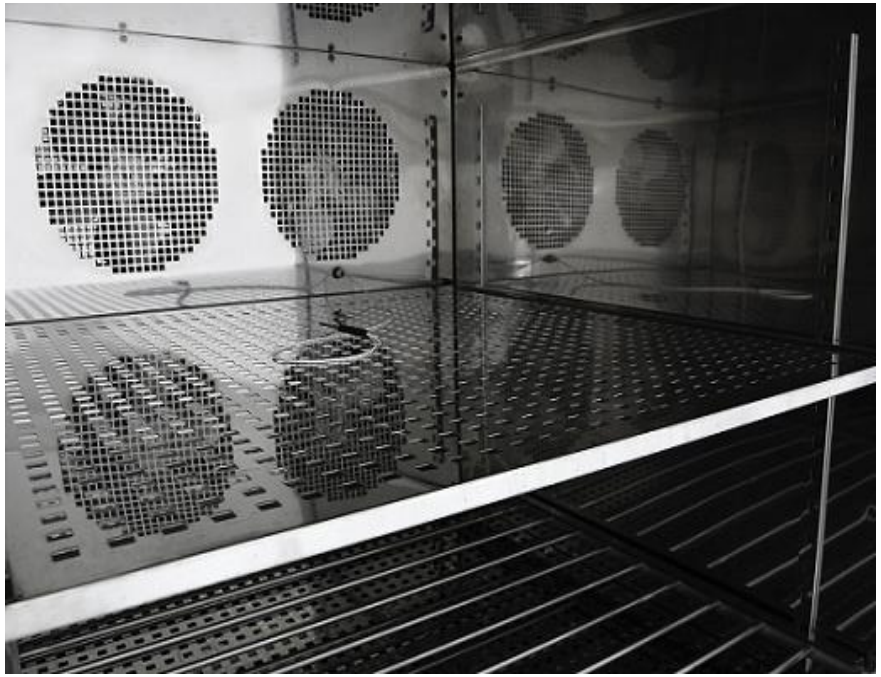
Aralab is ISO:9001 certified for it's Quality Management System



TESTING

Common applications: Electronic components, Automotive industry, Aerospace, Building materials, Textiles, Coatings, Solar technology and many more!

Climatic Testing
TemperatureTesting
Environmental Simulation
Research
Quality Control
Calibration and Metrology



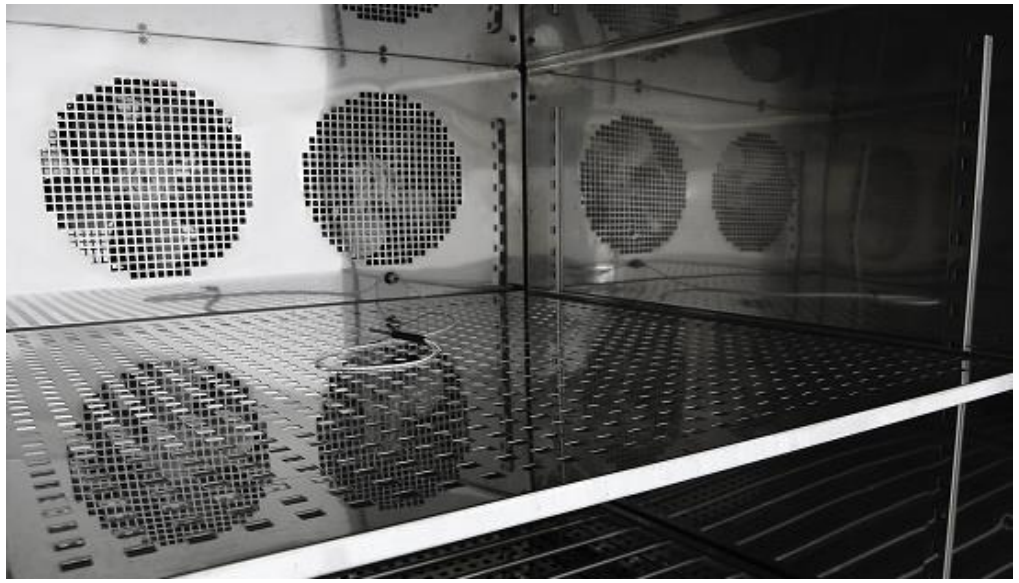
KEY FEATURES

- Environmental conditions controlled with consistent precision through the years
- The most advanced technology in climate control
- Internal aerodynamic optimization to ensure uniformity of climatic conditions
- Time saving features with easily configurable testing programs that can run, start and stop automatically
- Highly resistant stainless steel interior for maximum durability and easy cleaning
- Flexible interior with height adjustable and removable stainless steel shelves
- Nonpolluting construction and cooling system
- Compliant with international standards and requirements EN, IEC, DIN, ISO, NP and UNE

SOME TESTING REFERENCES

FITOCLIMA & FITOTERM 300 TO 1500 LITRES TESTING CHAMBERS

‘REACH-IN”ENVIRONMENTAL CHAMBERS FOR CLIMATIC AND/OR TEMPERATURE TESTING APPLICATIONS



FITOCLIMA & FITOTERM 300 TO 1500 LITRES TESTING CHAMBERS

‘REACH-IN”ENVIRONMENTAL CHAMBERS FOR CLIMATIC AND/OR TEMPERATURE TESTING APPLICATIONS

ARALAB FITOTERM AND FITOCLIMA ‘REACH-IN’ TESTING CHAMBERS	
PERFORMANCE IN CLIMATIC TESTING RANGE FOR FITOCLIMA CHAMBERS (TEMPERATURE + HUMIDITY CONTROL)	
Temperature Range	10ºC to 90ºC
Temperature Uniformity	± 0,1ºC to ± 1,0ºC (1b)
Temperature Fluctuation	± 0,1ºC to ± 0,3ºC (1b)
Humidity Range	**10% RH to 98% RH**
Humidity Fluctuation	± 0,5% RH to ± 2% RH
PERFORMANCE IN TEMPERATURE TESTING FOR FITOTERM AND FITOCLIMA CHAMBERS (TEMPERATURE CONTROL)	
Temperature Ranges	**-75ºC, -45ºC or -20ºC up to 180 ºC**
Temperature Uniformity	± 0,5ºC to ± 1,5ºC
Temperature Fluctuation	± 0,1ºC to ± 0,5ºC
Temperature Rate Of Change **Heating**	From 2,5ºC to 4,5ºC / minute
Temperature Rate Of Change **Cooling**	From 2ºC to 4ºC / minute
MODELS / DIMENSIONS AVAILABLE	
Internal Test Volumes	**300, 500, 1.000 and 1.500 liters**
OTHER TECHNICAL DATA	
Noise Level	55 to 64 dBA
Electrical Connection	3/N/PE AC 400V ± 10% 50Hz

FITOCLIMA & FITOTERM 300 TO 1500 LITRES TESTING CHAMBERS

‘REACH-IN”ENVIRONMENTAL CHAMBERS FOR CLIMATIC AND/OR TEMPERATURE TESTING APPLICATIONS

CONSTRUCTION

Interior: AISI 304 hermetical welded, vapor tight, stainless steel

Exterior: Zinc mild steel with epoxy coating finish (RAL 7035)

Insulation: Rock Wool

Interior light: Halogen lamp (available with optional window)

Door: Double silicone joints and anti-condensation heating frames (optional window)

Security, Communications and Mains: on the side of the chamber with high/low safety thermostat; mains switch; audible and visual alarms; RS232 (or RJ45) communications ports

ENVIRONMENTAL CONTROL

Heating: stainless steel electric heaters located in the air treatment tunnel

Cooling: scroll compressor group. -75°C chambers and models with cooling rate upgrades will have water cooled condenser as standard and air / water as option.

Humidification and Drying: Thermostatic bath with dew point control. For drying, an additional dry coil

Temperature control: Two sensors: one PT100-A located in air treatment tunnel and one PT100-A, movable sensor for flexible placing inside chamber

Humidity control: Psychrometric, Capacitive, or both.

FITOCLIMA & FITOTERM 8.000 TO 12.000 LITRES TESTING CHAMBERS

‘WALK-IN”ENVIRONMENTAL CHAMBERS FOR CLIMATIC AND/OR TEMPERATURE TESTING APPLICATIONS

FITOCLIMA & FITOTERM 8.000 TO 12.000 LITRES TESTING CHAMBERS

‘WALK-IN’ ENVIRONMENTAL CHAMBERS FOR CLIMATIC AND/OR TEMPERATURE TESTING APPLICATIONS

ARALAB FITOTERM AND FITOCLIMA ‘WALK-IN’ TESTING CHAMBERS	
PERFORMANCE IN CLIMATIC TESTING RANGE FOR FITOCLIMA CHAMBERS (TEMPERATURE + HUMIDITY CONTROL)	
Temperature Range	10ºC to 95ºC
Temperature Uniformity	± 0,5ºC to ± 1,0ºC
Temperature Fluctuation	± 1ºC
Humidity Range	**10% RH to 95% RH**
Humidity Fluctuation	± 1% RH to ± 3% RH
PERFORMANCE IN TEMPERATURE TESTING FOR FITOTERM AND FITOCLIMA CHAMBERS (TEMPERATURE CONTROL)	
Temperature Ranges	**-60ºC, -40ºC or -20ºC up to 150 ºC**
Temperature Uniformity	± 0,5ºC to ± 1,5ºC
Temperature Fluctuation	± 0,1ºC to ± 0,5ºC
Temperature Rate Of Change **Heating**	From 1,5ºC to 5ºC / minute
Temperature Rate Of Change **Cooling**	From 1ºC to 5ºC / minute
MODELS / DIMENSIONS AVAILABLE	
Internal Test Volumes	**8.000 and 12.000 liters**
OTHER TECHNICAL DATA	
Noise Level	65 to 75 dBA
Electrical Connection	3/N/PE AC 400V ± 10% 50Hz

FITOCLIMA & FITOTERM 8.000 TO 12.000 LITRES TESTING CHAMBERS

‘WALK-IN’ ENVIRONMENTAL CHAMBERS FOR CLIMATIC AND/OR TEMPERATURE TESTING APPLICATIONS

CONSTRUCTION

Interior: AISI 304 hermetical welded, vapor tight, stainless steel

Exterior: Zinc mild steel with epoxy coating finish (RAL 7035)

Insulation: Rock Wool

Interior light: Halogen lamp (available with optional window)

Door: Double silicone joints and anti-condensation heating frames (optional window)

Security, Communications and Mains: on the side of the chamber with high/low safety thermostat; mains switch; audible and visual alarms; RS232 (or RJ45) communications ports

ENVIRONMENTAL CONTROL

Heating: stainless steel electric heaters located in the air treatment tunnel

Cooling: scroll compressor group. -40°C and -60°C chambers and models with cooling rate upgrades will have water cooled condenser as standard and air / water as option.

Humidification and Drying: Thermostatic bath with dew point control. For drying, an additional dry coil

Temperature control: Two sensors: one PT100-A located in air treatment tunnel and one PT100-A, movable sensor for flexible placing inside chamber

Humidity control: Psychrometric, Capacitive, or both.

FITOTERM 150 CTE – TEMPERATURE SHOCK

TEMPEREATURE TESTING CHAMBER FOR TEMPERATURE SHOCK TESTING

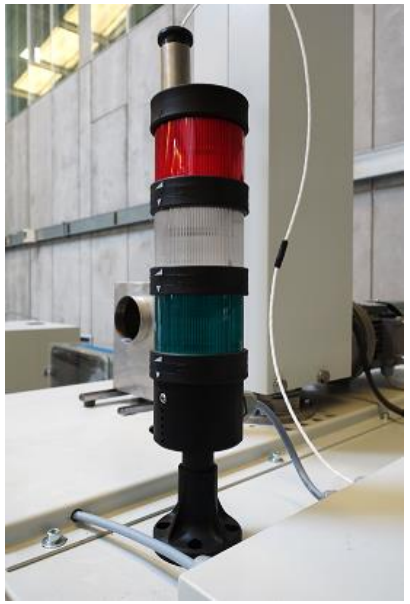
FITOTERM 150 CTE – TEMPERATURE SHOCK

TEMPEREATURE TESTING CHAMBER FOR TEMPERATURE SHOCK TESTING

ARALAB FITOTERM 150 CTE – TEMPERATURE SHOCK	
SPECS	
Temperature Ranges	**-75ºC to 200ºC**
Temperature in Hot (upper) chamber	Ambient to +200ºC
Temperature in Cold (lower) chamber	-75º C to +60º C
Transfer time between Hot and Cold chamber	≤ 5 seconds
Temperature Fluctuation (time)	≤ ± 0,5ºC
Temperature Precision (space)	≤ ± 1,0ºC
MODELS / DIMENSIONS AVAILABLE	
Internal Test Volume (net)	**125 liters**
Test space dimensions	410 mm x 470 mm x 650 mm
Admissable weight load	50 Kg
OTHER TECHNICAL DATA	
Noise Level	60 to 70 dBA
Electrical Connection	3/N/PE AC 400V ± 10% 50Hz

FITOTERM 150 CTE – TEMPERATURE SHOCK

TEMPEREATURE TESTING CHAMBER FOR TEMPERATURE SHOCK TESTING



CONSTRUCTION

Interior: AISI 304 hermetical welded, vapor tight, stainless steel

Exterior: Zinc mild steel with epoxy coating finish (RAL 7035)

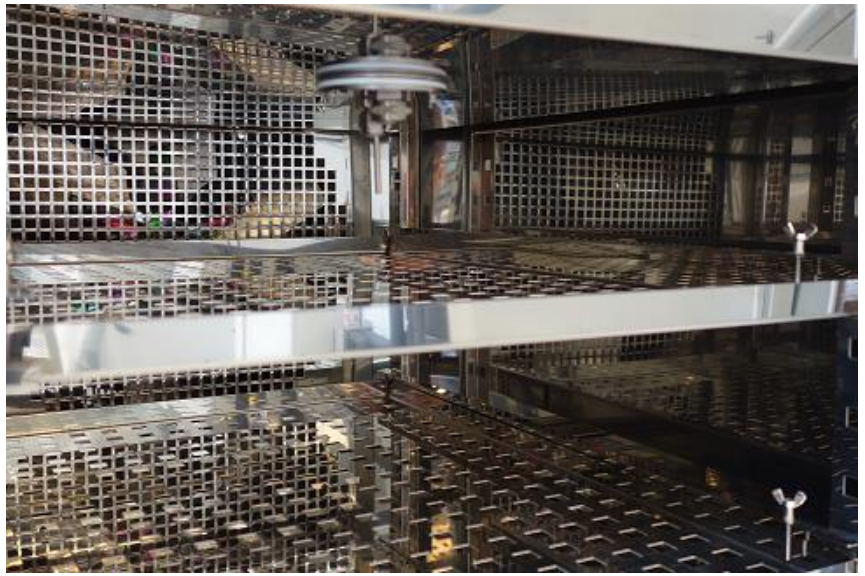
Insulation: Rock Wool

Door: Double silicone joints and anti-condensation heating frames

Observation Window: located at Hot (upper) chamber door. Multilayer anti condensation glass

Interior light: Halogen lamp

Security, Communications and Mains: on the side of the chamber with high/low safety thermostat; mains switch; audible and visual alarms; RS232 (or RJ45) communications ports



ENVIRONMENTAL CONTROL

Heating: stainless steel electric heaters located in the air treatment tunnel

Cooling: scroll compressor group. Water cooled condenser as standard.

Temperature control: Two sensors: one PT100-A located in air treatment tunnel and one PT100-A, movable sensor for flexible placing inside chamber

Cool-up Feature: accelerate cooling of the Hot (upper) chamber by fresh air renewal

TESTING

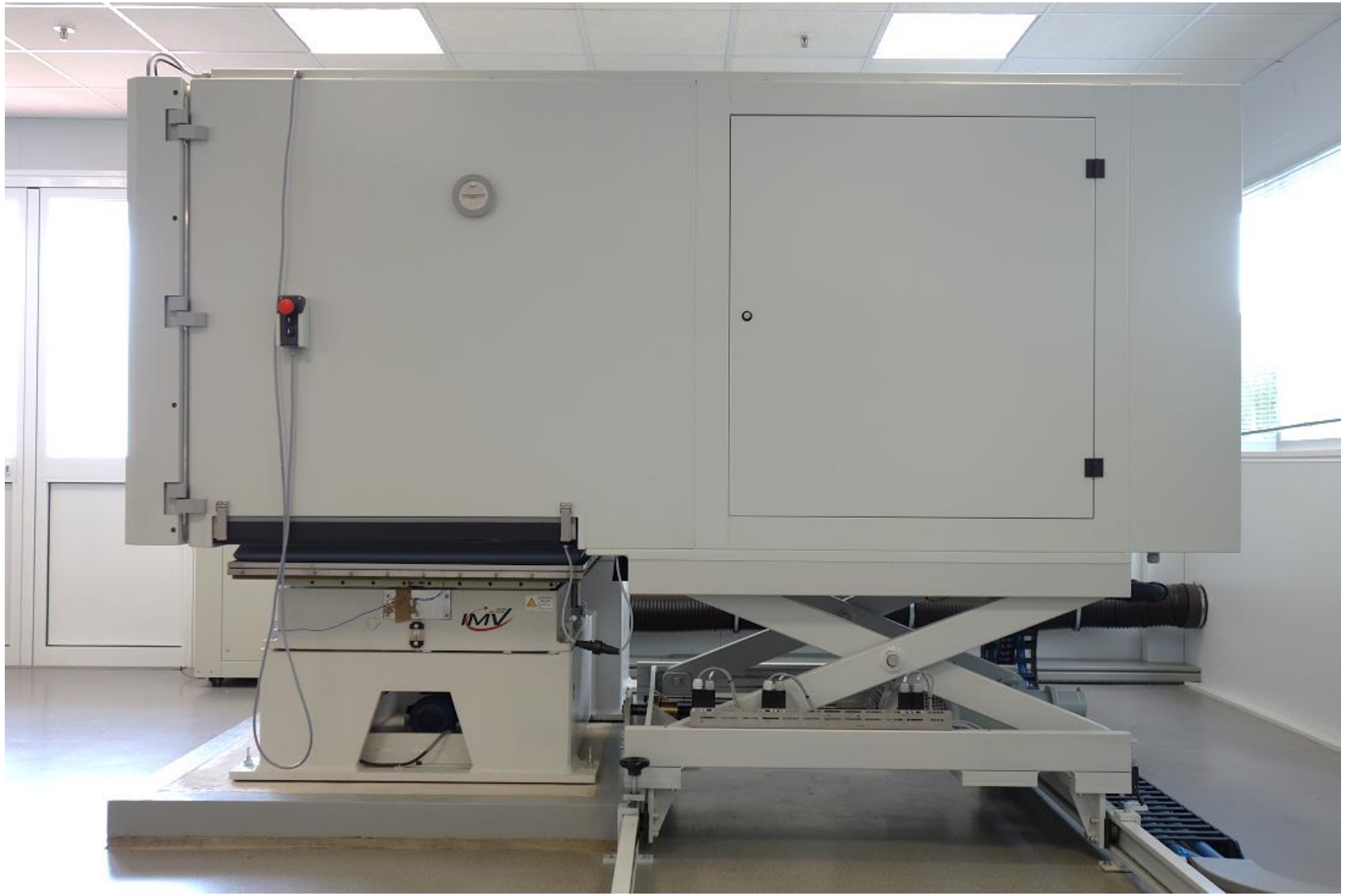
Other Environmental and Temperature Testing Chambers and applications

METROLOGY AND CALIBRATION CHAMBERS

REACH-IN CHAMBERS FOR TEMPERATURE AND HUMIDITY CALIBRATIONS

COMBINED VIBRATION AND TEMPERATURE/CLIMATIC TESTING

INTEGRATION WITH HORIZONTAL, VERTICAL OR MULTIAXIAL SHAKERS

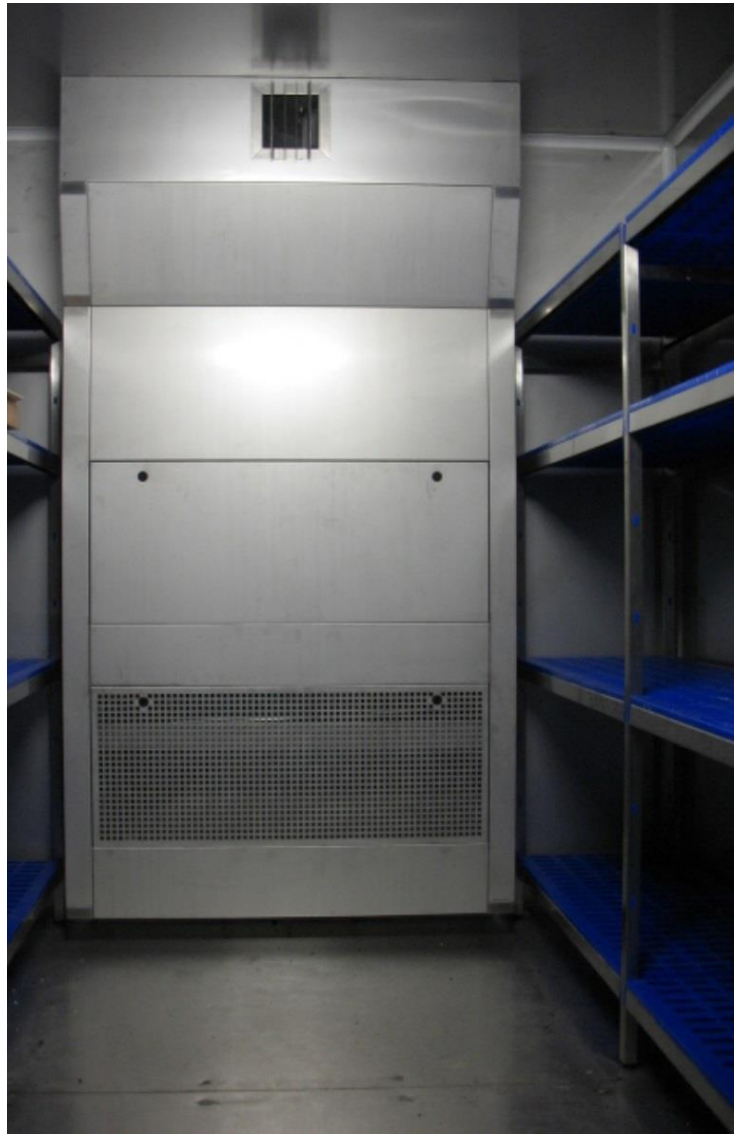


SOLAR PANELS TESTING CHAMBERS

REACH-IN AND WALK-IN CHAMBERS FOR SOLAR PHOTOVOLTAIC TESTING STANDARDS

CURING OF CEMENTS AND BUILDING MATERIALS

REACH-IN AND WALK-IN CHAMBERS



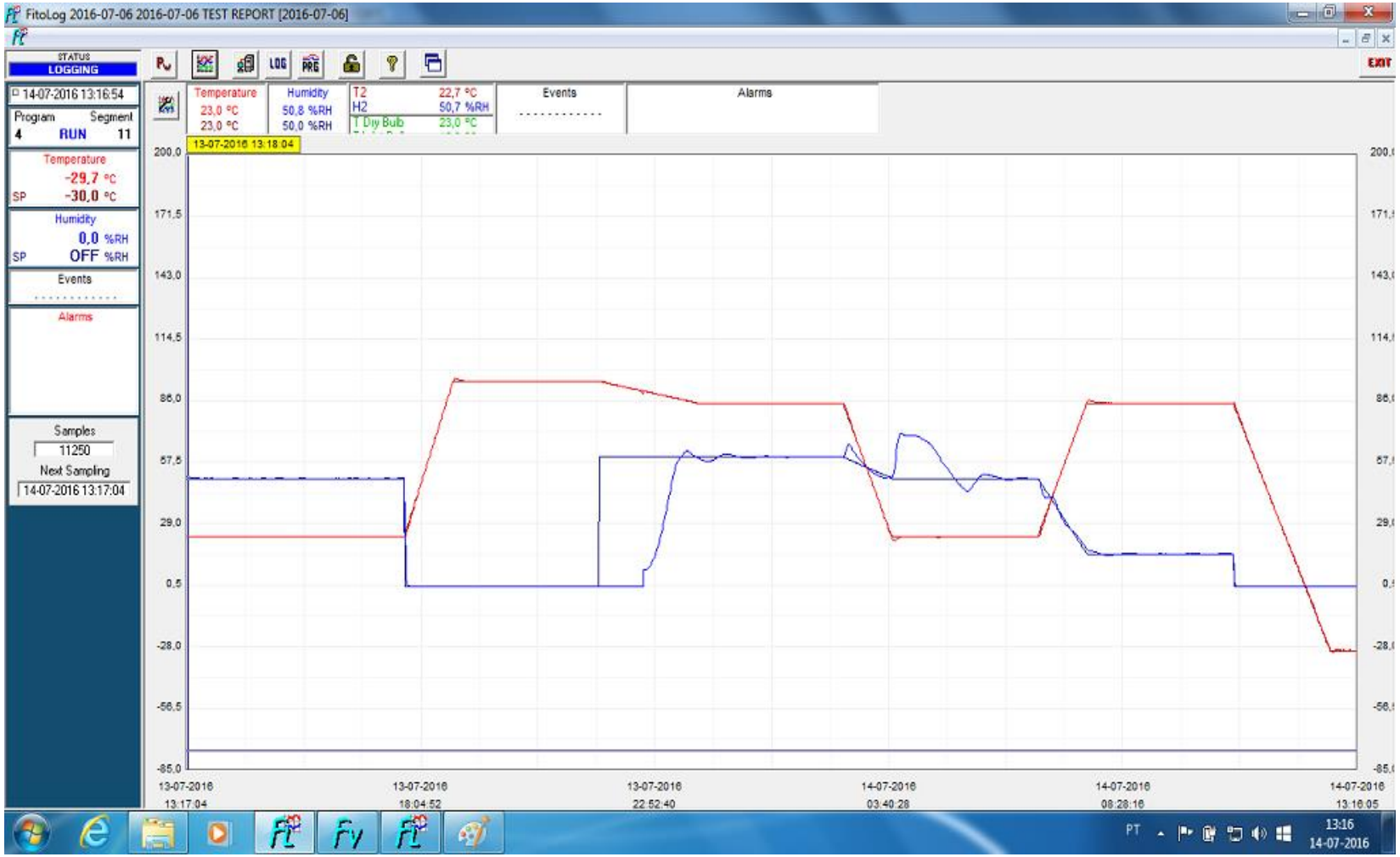
ENVIRONMENTAL TESTING ‘DRIVE-IN’ CHAMBERS

AUTOMOTIVE ENVIRONMENTAL SIMULATION DRIVE-IN CHAMBERS

TESTING OF REFRIGERATED DISPLAY CABINETS

ENVIRONMENTAL TESTING ROOMS

CLIMAPLUS AND FITOLOG® PROPRIETARY CONTROLLERS AND SOFTWARE



TESTING

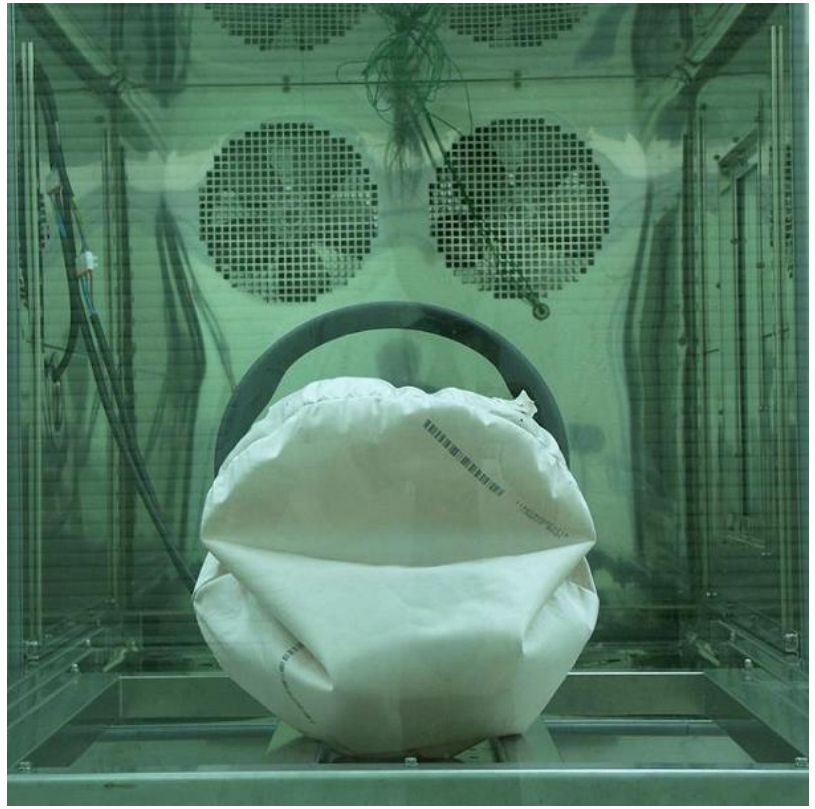
Some Special or ‘Turn-Key’ projects

ELECTRONICS TESTING LAB

CLIMATE AND SUN RADIATION SIMULATOR FOR AUTOMOTIVE TESTING

VIBRATION AND CLIMATIC TESTING IN AUTOMATED ‘3 POSITIONS’ PLATFORM

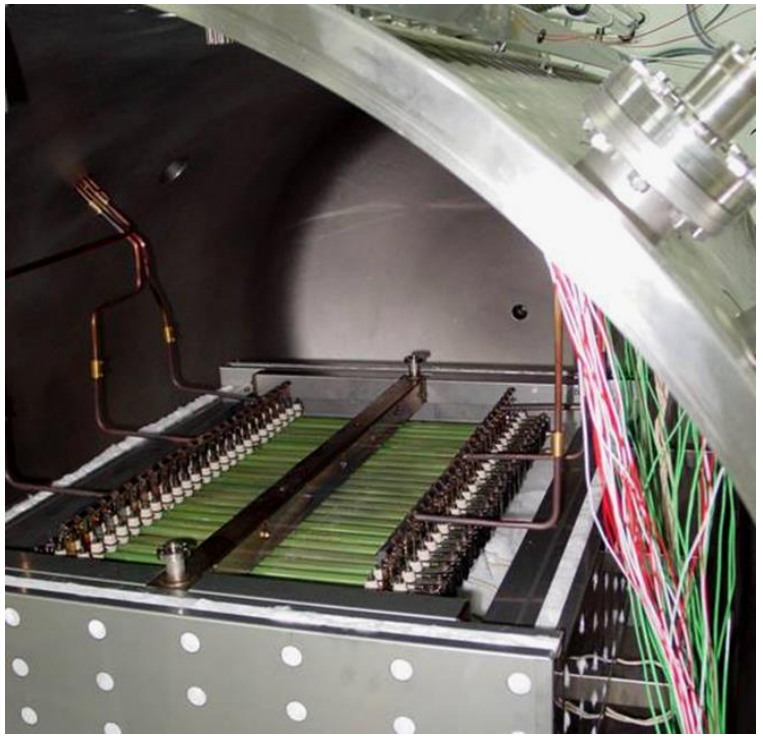
AIRBAG DEPLOYMENT IN TEMPERATURE TEST CHAMBER



UV TEST CHAMBERS AND FLASH TUNNEL FOR SOLAR TESTING LAB

U-VALUE MEASUREMENT HOT-BOX FOR BUILDING MATERIALS LAB

ATMOSPHERE REENTRY SIMULATOR FOR THE EUROPEAN SPACE AGENCY



Thank you for your time!

Find out more:

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