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TEMPERATURE and HUMIDITY TEST CHAMBERS
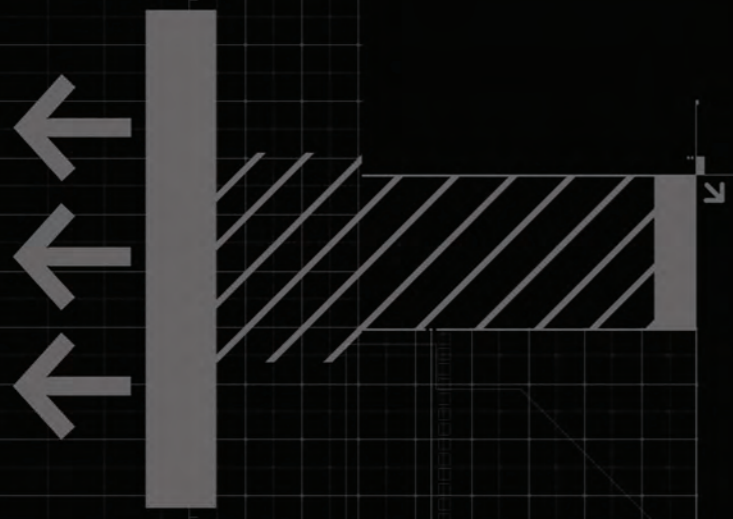
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made in italy

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Always in the forefront of innovation and research, has developed a new line of equipment: the Stability Test Chambers in three capacities 450 liters, 700 liters and 1400 liters.

Stability chambers models are available to control temperature only or both temperature and humidity.

frimed stability chambers are ideal for ICH Q1A stability testing, shelf life, package testing, accelerated aging for a variety of applications including Pharmaceutical Products/Packaging; Medical Products/Packaging; Personal Care Products; Consumer Products and Research. All stability chambers meet the ICH Q1A pharmaceutical stability guidelines for a variety of storage conditions:

Long Term: 2-8°C, 25°C/60% RH, 25°C/40% RH, 30°C/35% RH or 30°C/65% RH

Intermediate: 30°C/65% RH

Accelerated: 40°C/75% RH, 25°C/60% RH

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main features

- External structure in hot-dip galvanised steel, anti-corrosion treated and whte PVC film coated.

- Stainless steel internal structure with solid perforated shelves.

- Insulation of 60mm (450lt) and 80mm (700 and 1400lt) obtained by injection of high density ecological polyurethane CFC-free foam for excellent product preservation and best energy saving.

ENVIROMENT FRIENDLY REFRIGERANT GAS   NATURAL GAS **R290**   eco

- CFC-free R404a gas is used in all compressors of **Frimed** models. In addiction we also offer compressors with natural gas R290 on all our models.

- Self-closing solid door with removable magnetic gasket on four sides for perfect closing.
Right hand opening or left hand on request.

- Separate inner doors to ensure optimal temperature and humidity conditions. **(optional)**

- Lock with key to use the appliance under supervision.

- LED light with automatic switch at door opening. Manual switch on control panel.

- Water tank with automatic and manual water supply of demineralized water. **(optional)**

- Vapor humidification system.

- Capacitive humidity sensor.

- Side port hole Ø 50mm.

- Audible and visual alarms including high-low temperature/humidity and open door.

control panel

- Micro processor PID control panel with color touchscreen 9".

- Real time temperature/humidity graph.

- Setting and visualization with 0,1 resolution.

- Slot SD card for storage data.

- Password protected power switch and setting.

- Safety thermostat.

- Visual and audible alarms.

- Easy-to-use program.

- Interfaces: USB device, Modbus, and Ethernet.

- Back-up Battery to show temperature on display and to manage the alarm system in case of power failure. **(optional)**

- Remote contact (dry, volt-free) to connect the equipment to an external alarm.

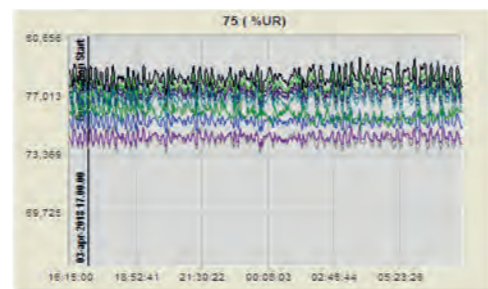- GSM module to send SMS alarms messages to mobile phones showing date, time, cabinet temperature and type of alarm. Possibility to send SMS messages from mobile phone to check correct functioning of equipment.

- LAN port to connect one or more appliances via Ethernet on PC to monitor working state.

- USB port to download temperature data and alarms and to upgrade or reset the appliance

- Data logger to record temperatures and alarms. Download data on USB pen drive

| TEMPERATURE DIGITAL DISPLAY |
| POWER CONTROL WITH PASSWORD |
| VISUAL AND ACOUSTIC ALARMS |
| BACK-UP BATTERY |
| REMOTE CONTACT FOR ALARM |
| GSM ALARM |
| LAN PORT |
| USB PORT |
| DATA LOGGER |
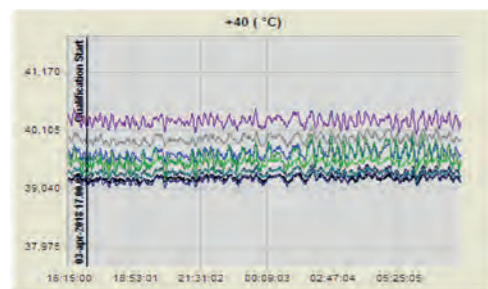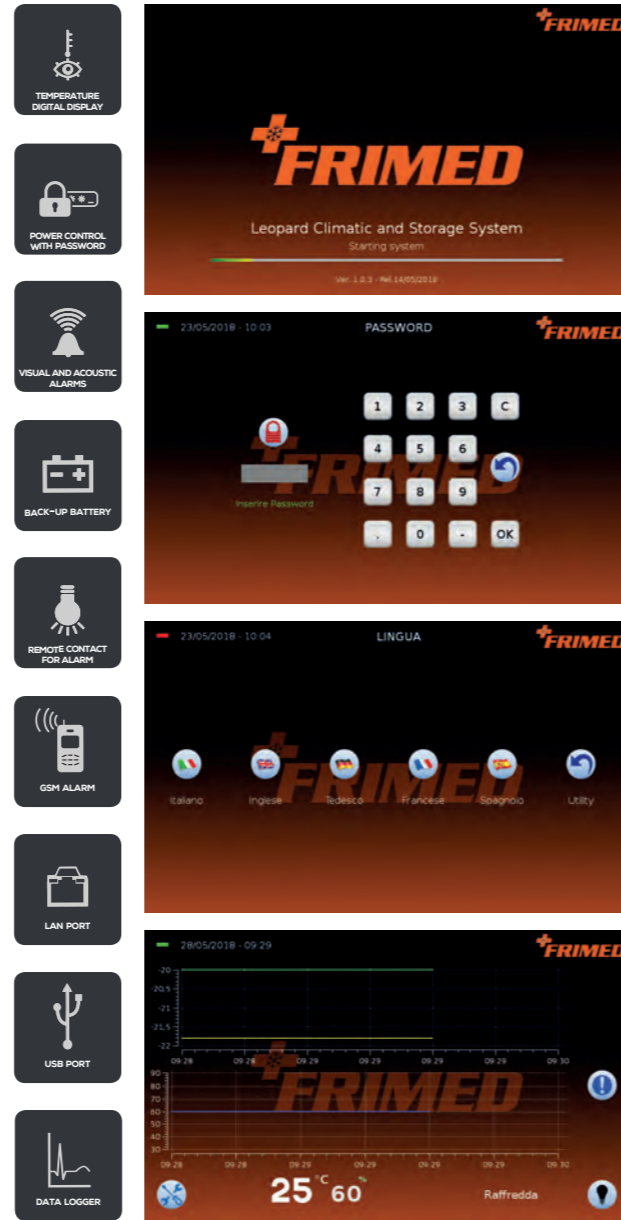
excellent temperature uniformity

excellent humidity uniformity

technical data

MODEL	PH45	PH70	PH140
Temp. range (°C)	+10 to +60	+10 to +60	+10 to +60
Humidity range (°C)	20 to 90	20 to 90	20 to 90
Dew point (°C)	+5..+50	+5..+50	+5..+50
T Stability (°C)	± 1	± 1	± 1
UR Stability (%)	± 3...5	± 3...5	± 3...5
Volume (liters)	450	700	1400
Ext. dim. lxpxh mm	700x1000x1730	700x1000x1990	1400x1000x1990
Int. dim. lxpxh mm	580x670x1200	580x670x1500	1280x670x1500
Power absorption (kW)	1,6	1,6	1,8
ACCESSORIES			
Stainless steel shelf	3	4	8
4 one way wheels	√	√	√
Water tank	optional	optional	optional
1 Port hole Ø 50mm	1	1	2
3 Inner glass door	optional	optional	optional
Safety thermostat	optional	optional	optional
Backup battery	optional	optional	optional
LAN port	optional	optional	optional

MODEL	PT45	PT70	PT140
Temp. range (°C)	+10 to +60	+10 to +60	+10 to +60
T Stability (°C)	± 1	± 1	± 1
Volume (liters)	450	700	1400
Ext. dim. lxpxh mm	700x1000x1730	700x1000x1990	1400x1000x1990
Int. dim. lxpxh mm	580x670x1200	580x670x1500	1280x670x1500
Power absorption (kW)	0,8	0,8	1,2
ACCESSORIES			
Stainless steel shelf	3	4	8
4 one way wheels	√	√	√
1 Port hole Ø 50mm	1	1	2
3 Inner glass door	optional	optional	optional
Safety thermostat	optional	optional	optional
Backup battery	optional	optional	optional
LAN port	optional	optional	optional