



# **STABILITY TEST CHAMBERS**

MODEL NO. - ACM-08890





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ACMAS TECHNOLOGIES PVT. LTD.





Weiber Stability Test Chambers/ are widely used for confirmatory studies for direct comparison of drug substance under controlled environmental conditions.

#### MATERIAL OF CONSTRUCTION

Castor wheel mounted cabinet is double walled with inner chamber of Stainless steel sheet of grade SS 304 and outer wall of heavy gauge PCRC steel. sheet duly degreased and pre treated with primers for rust proofing duly painted with attractive stove enamel or powder coated.

#### **TEMPERATURE RANGE / CONTROL**

 $10^{\circ}$ C to  $60^{\circ}$ C (Accuracy:  $\pm 1^{\circ}$ C). The temperature inside the stability test chamber is controlled by intelligent programmable temperature controller and indicator. This controller is based on the microcontroller nano watt technology and its ergonomic design suits for any specific requirement of the photo stability test chamber like Data logger facility, Thermal and DOT Matrix interface, direct data load facility in computer office automation software like

MS-Word and Excel and many other features listed in the specification below.

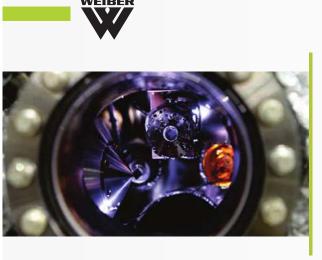
#### HUMIDITY RANGE

40% to 95% RH (Accuracy: + 5%)(Humidity Applicable as per the Temperature Humidity Graph Attached) Accurate Micro processor Based Humidity Control System. The WEIBER" Stabiliy Chamber uses a microprocessor based; electronic humidity sensor detector is an exact logarithmic function of the humidity concentration in the environment of the chamber between source and detector. Advanced design provides a very stable drift-free output requiring less frequent calibration.

#### ILLUMINATION

Our Stability Chamber conforms to the illumination requirement as per the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) ICH GUIDELINES (ICH Q1B). The unit is provided with four fluorescent light





mounted in a diffuser enclosure at the top of the chamber providing minimum illumination level of 1.2 million lux ,which is effectively controlled through a programmable illumination controller.

#### 1) HEATER MODE

This LED indicates the heating system on condition and it light up when the set temperature is higher than the ambient temperature.

#### 2) COOLING MODE

This LED indicates the cooling system on condition and it light up when the set temperature is lower than the ambient temperature.

#### 3) TEMPERATURE ALARM

This LED indicated the extreme Ambient condition and the temperature failure condition.

#### 4) AUDIO ALARM

This Alarm indicates the visual alarm and indiactes any failure and Temperature overshoot conditions.

#### 5) DOOR OPEN

Visual indication with door open conditions.

#### 6) A.C POWER FAILURE

This visual indicator light up when the mains power fail and the system working in the battery mode.

#### 7) LOW BATTERY INDICATOR

This LED indicates the battery backup status, This LED indicates when the battery charge capacity available at 25% of the total charge.

#### 8) UP

Count up key.

#### 9) SET

This is a set button to set any parameter on the screen, by pressing of this key a cursor blink on the corresponding parameter, So you can select any desired parameter and use UP and Down key to set specific value/setting.







#### SYSTEM SETTING

DATE and TIME : From normal operational mode, press SET key ones, The cursor blinks at DATE (20), and for second press of KEY SET the cursor blinks at MONTH (12), and similary on Third press of key SET cursor blinks at YEAR and repeat the steps to move to any parameter. Similary you move cursor on any parameter and set desired value for system operation. To increase any parameter use UP key and to decrease any parameter use DOWN key. After completion of all correct setting press ESC key to return back to the main menu.

#### OPTIONAL FEATURES (Can Be incorporated At Extra Cost If Desired)

- Temperature set point controls relays for refrigeration
  compressor and evaporator fan.
- Relays rated min. 200VAC: (a) Compressor: min. 8 A, min. 60 LRA, (b) Fan: min. 4 A, (c) High/low temp alarm.

- Audio and Visual Alarm. Programmable.
- Alarm mute w/ ring back in 5 minutes.
- Touch Button Control for Alarm Mute/Ring Back.
- Keyed alarm silence switch.
- External Keyed Alarm Mute. Alternate: Supervisor programmable code.
- Door Buzzer alarm.
- IR Sensor/ Micro Switch Based Door open Alarm.
  Adjustable or fixed 30s delay before alarm.
- Power failure alarm: Automatic Power detection and Audio Visual Alarm. Adjustable or fixed 15 min delay before alarm.
- Programmable temp range: Touch Button Control to Program Temperature. User Settable.
- Battery backup: Automatic Battery Charging Facility inbuilt in circuit. Provides up to 24 hr of display power.
- Mounted temp probe.
- R.F based Remote Alarm System.







- Built-in chart recorder/Thermal Printer standard for blood bank units or data acquisition in the controller memory which can be down loaded on a computer through a suitable world standard interface like RS232 and/or RS485.
- RS-232 I/O Port Provided.
- Serial Thermal Printing facility.
- 24 hr non-volatile temperature Record Storage Capacity, and Record Download facility in MS-WORD/Hyperterminal/MS-Excel.
- Up to 1 MB data storage Facility.
- Seven Day Profile Timer with Real Time Clock.

#### INSULATION

The gap of 75 mm between the outer and the inner wall is filled with special grade glass wool to prevent thermal losses.

#### MINERAL GLASS WOOL INSULATION

Glass mineral wool is one of the most environmentally

friendly, stable and sustainable insulants available. Glass wool is incombustible by nature. Euro class classification is A. It does not propagate flames and toxic smokes. Thanks to a dense entanglement of materials with a low conduction and trapping a great amount of air, glass wool is a an excellent thermal insulant. The thickest it is, the best thermal resistance it has, thus reducing heat losses in our equipments for better sensitivity and economical operations. And its impact on the environment in manufacture, use and disposal is minimal.

#### AIR CIRCULATION

Triple walled back of unit is fitted with two air circulation fans for maintaining temperature uniformly throughout the chamber.

#### FEATURES OF COAXIAL CIRCULATION FAN

- Vacuum impregnated stator winding with dr. back varnish under red baktol.
- Non-Hygroscopic







- Best IR value
- Bright bar (EN 8 class) shaft.
- Bush bearing of branded companies.
- Surge comparison testing in fans and pumps eliminates into turn short circulating of the stator.
- Pressure die-casted-rotor manufactured with zero error.
- Boats of high accuracy.

#### DOORS

Full view inner glass/perspex door permits inspection of specimens, without disturbing the chamber temperature . Lock and Key arrangement is provided in the double walled outer door.

#### **ILLUMINATION**

Unit is fitted with door operated illumination lamp inside the chamber. 40 watt/120 volt replacement light bulb fits inside the illumination cavity of the chamber.

#### **REFRIGERATION UNIT**

Refrigeration unit is formed by ISI marked compressor/cooling kit. Of Kioloskar Copeland or Tecumseh.

#### FEATURES STABILITY CHAMBER

- High Energy Efficiency
- Compact
- Ozone-friendly refrigerants
- Proven Technology
- Wide Voltage Range

#### SHELVES

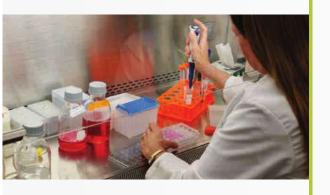
The unit is supplied with 2 to 6 shelves of stainless steel sheet. (Model Specific)

#### VOLTAGE

To work on 220/230V A.C. supply.







#### **TECHNICAL SPECIFICATION**

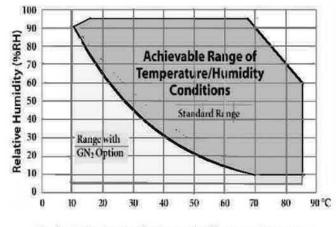
Temperature Control	-		-
Temperature Variation (time)	±°(	С	0.5
Temperature Deviation (Spatial)	±°C	;	0.1
Readability/ Set ability	°C		0.1
Temperature range	°C		10°C to 60°C
Sensor Thermocouple	-		PT-100
Controller	-		PID
Display	-		LED/LCD
Adjustable alarm limits (visual and acoustic)	-		Optional
Humidity Range	%		40% to 95% RH (Humidity Applicable as per the temperature Humidity Graph Attached)
Humidity Sensor	-		Capacitive
Safety thermostats			
Temperature variation (time)	-		3
Sensors Thermocouple	-		Туре К
Automatic temperature setting	-		Yes
Adjustable limits	-		Yes
Light control		-	-
Readability or Set ability		%	5%
Light intensity		Lux	1.2 million lux

Light intensity (UV)	Min	200 Watt hour/square meter
Accessories	-	
Automatic De-icing system	-	Optional
Timer(1-999 minutes of hours)	-	Optional
Real Time Program	-	Optional
Printer Report Program	-	Optional
Serial Data Port	RS232	Optional
Inspection window in door	-	Optional
Access Port 30 mm		Optional
Castors, lockable		Yes
Shelves		
Standard /max _	2-6(deper	nding on the internal size
Dimension w,d mm	As per th	e individual model
Power Consumption		
Nominal Voltage	V	230, 1~
Frequency	Hz	50/60





Standard Humidity Range:



Above is a chart that shows the achievable range of humidity as compared to temperature

#### **INTERNAL DIMENSIONS (STANDARD)**

(W x D x H)	CAPACITY
505X830X415 mm	6 Cu.ft
570x875x550 mm	10 Cu.ft
650x900x550 mm	12 Cu.ft
700x900x650 mm	15 Cu.ft
775x900x775 mm	20 Cu.ft
825x1200x825 mm	30 Cu.ft
900x1720x800 mm	45 Cu.ft

**NOTE** We are equipped to handle customized requirements for the stability chambers.



CE An ISO 9001 : 2208 | ISO 14001 : 2008 | ISO 13485 WHO: GMP Products | GLP Compliant Products

www.acmasindia.com | www.acmasglobal.com | www.test-chambers.com

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