CONTROLLED ENVIRONMENT CHAMBER

Model 5532

The Model 5532 is designed to accommodate equipment and material requiring a precise, stable environment, excellent visibility and a large internal work area (13 cu. ft., 368 l). The system independently maintains humidity from <10 to >98% RH and temperature from <60 to >122°F (16-50°C) when used in an area maintained at 23°C. Uses include weighing, testing, storage, fabrication and conditioning for consumer product development, biomedical, pharmaceutical, automotive, electronic, electrostatic, DOD, food product analysis, university research and other applications. The Model 5532 is available in 115 and 230 VAC versions.

Features:

- ☐ **Microprocessor PID control**
- ☐ **Multiple ramp/soak**
- ☐ **Computer software package**
- ☐ **Front & side doors**
- ☐ **8" Ports with gloves**
- ☐ **Fluorescent lighting**
- ☐ **Internal fans and AC power**
- ☐ **Clear & white acrylic with PS30 welded seams**
- ☐ **Continuous set point & level displays**
- ☐ **Thermoelectric cooling & electric heating systems**
- ☐ **High capacity dehumidification & humidification systems**
- ☐ **System upgrades & 3rd parameter monitoring & control available**

Performance Characteristics:

Equipment and samples placed inside the environment will have an impact on the conditions that can be maintained and the time required to increase or decrease to the set point. Any item that adds heat or humidity to the environment will have an impact on system performance. Chamber performance pertains to the ability of the chamber to reach and then hold a given level along with gradients. It is not only a function of the chamber, but the ambient humidity and temperature, operating systems and controllers used. The following charts show the time typically required to decrease and increase humidity (Blue = RH, Red = T °C) plus humidity gradients in a no-load situation.
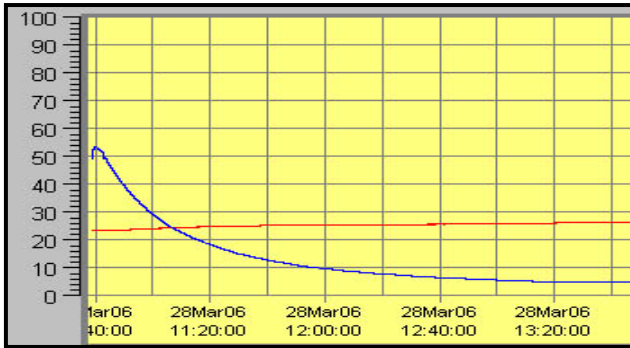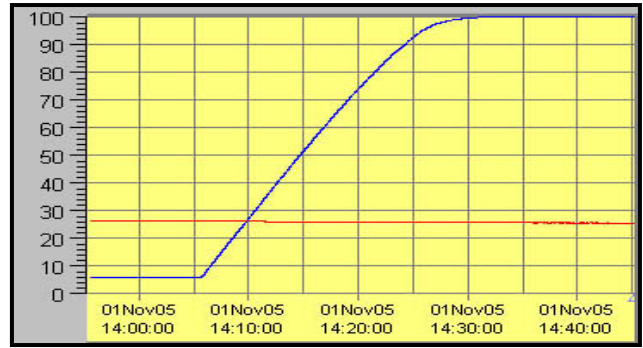
Rate of decrease (Blue = RH)

Rate of increase (Blue = RH)
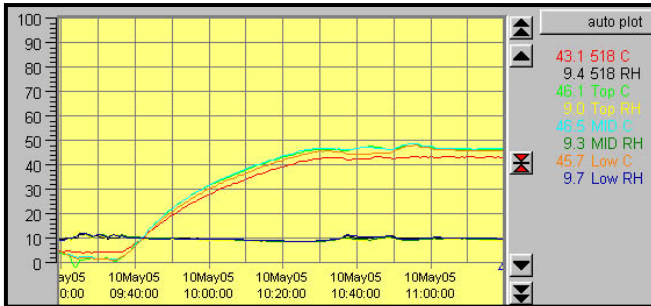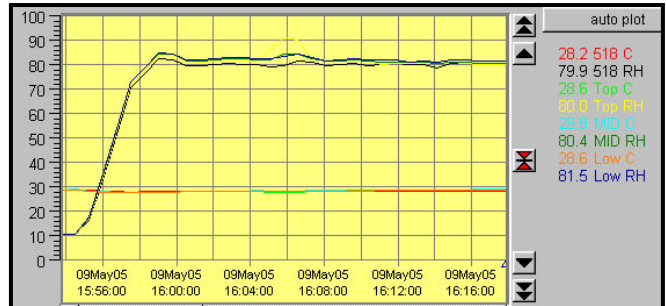

Increase temperature, constant low RH

Increase RH @ 23°C

Specifications:

Chamber:

Dimensions:
Overall: 54"Wx25.25"Dx21.75"H (137x64x55cm)
Working space: 38.75"Wx24.5"Dx21"H (98x62x53cm)
Full clearance: 35.75"Wx20"Dx18"H
Weight: 130 lbs. (59 kg)
Material:
3/8" (6mm) clear & white acrylic
Construction: PS30 polished welded seams
PS30 polished welded seams
Doors: 3/8" (9mm) clear acrylic, ½-turn latches
Front: 32" x 14" (81 x 35 cm) Access Opening
Side: 14" x 4" (35 x 10 cm) Access Opening
Seal: ¼" (6mm) Poron, non-setting gasket
Operating Range:
Humidity: <10 to >98% @ 23°C ambient
Temp: <60->122°F (16-50°C) @ 23°C ambient
Controllers:
Two (2) CAL 9500, multiple ramp/soak cycles
Optional 3rd parameter, linear input
Resolution: 0.1%/0.1°
Rec. Out: Humidity: 0-1VDC (0 to 100% RH)
          Temperature: 0-1VDC (-40 to 60°C)
Computer Interface:
MODBUS pro. via RS485-PC (Serial or USB)
with W98, XP, W7Pro (No function with W7 Home)
Sensor: (Extends 3" into chamber on right side wall)
Type: Temperature compensated RH/Temp
RH: Capacitive film, 0 to 100%, non-condensing
Temp: RTD, -40 to +140°F (-40 to 60°C)
Accuracy: ±1.5% RH @ 72°F (22°C) ±0.5°F (±0.3°C)

Lighting: 18W sealed fluorescent, ON/OFF sw
(Light extends 3" down from top of chamber.)
Gloves: .018" (0.5mm), replaceable hands,
natural rubber, accordion sleeves standard
Optional: Iris Ports, No Ports
Fans: 2x110 cfm (6230 l/min), ON/OFF/ADJ
Ports on Right-Hand Side:
Qty: 2x¼" (6mm) Quick Connect (Dehumidification)
Qty: 1x1" (25.4mm) Hose Barb (Humidification)
Port on Left-Hand Side:
1x1.5" (31.4mm) Cable pass through
Power:
Voltage: 115/230VAC, 50/60Hz
Current: 8 Amps/4 Amps
Shipping: Chamber: 63"x36"x 33" 190-lbs.
          Accessories: 22"x22"x14" 27-lbs.
Operating Systems:
Dehumidify: Desiccant/Pump
2.5 lb (1.1kg) $CaSO_4$, 0.71cfm (120 l/min)
Humidify: Single Head Ultrasonic
Capacity: 5 gal (19 l) ext. tank or direct hookup.
Humidifier pump flow rate 0.71cfm (120 l/min)
Heat: Electric, 500W
(Mounted internally on rear wall of chamber.)
Cool: 150W Thermoelectric (Std.), 300W (Opt.)
(Mounted on outside of chamber. Extends 3.25")
Warranty: One (1) year

Specifications are subject to change without notice.
7/12