



>EA Series >EAH Series Temperature/Altitude/Humidity Test Chambers



EA and EAH Series

Temperature/Altitude/Humidity chambers are typically used to simulate test conditions for components and subassemblies designed to meet military specifications and/or for use in aeronautical, space engineering, automotive, computer, electronics, packaging, and meteorological fields.

Envirotronics EA (temperature and altitude) and EAH (temperature, altitude, and humidity) chambers are designed to allow the user to perform temperature, humidity and altitude condition testing in one combined test chamber. More than one condition can be created simultaneously to satisfy many types of test requirements. Our EA and EAH Series chambers are designed to simulate altitude conditions up to 100,000 feet. They are also designed to offer simultaneous temperature/altitude testing from site altitude to 35,000 feet. Humidity tests can be conducted at site altitude only.

The EA/EAH chambers are available in 8, 40, and 64 cu. ft. models (300L 10000L and 1800L respectively). If your requirements fall outside the realm of these standard sizes, Envirotronics will design a chamber to meet your specific needs.

Standard Features

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- Dual air circulation system with solid stainless steel jack shafts
- Nichrome wire heating elements with fail safe fusible link
- Solid state heat switching
- Full front opening door
- Heavy duty handwheel actuated door latching
- 8" thick walls
- Internal pressure member
(EAH Models are constructed with an internal pressure member. EA Models can be quoted with an external pressure member construction.)
- Solid state altitude sensor
- Interior light
- ETL (UL STD 508A) approved main power panel

Optional Features

- Stainless steel wire shelves
- Heavy duty casters
- Running time meter
- Refrigeration gauges
- Main power electrical disconnect switch
- Low watt density sheath heaters for temperature control above 35,000 ft.
- 3" I.D. weld neck access port with insulating plug and blank flange
- Refrigeration section quiet package
- Dry air purge
- Chart recorder

Vacuum System

- The internal altitude is controlled using pneumatically

Temperature, Altitude and Humidity Range

Temperature Range:

-68°C to +177°C (site altitude to 35,000 ft.) Control Accuracy: ±1.1°C

Altitude Range:

Site to 100,000 feet (humidity uncontrolled during altitude testing).

Humidity Range:

20% to 95% relative humidity (at site altitude only) Control Accuracy: ± 5%
Dew Point Limit: 4.5°C Maximum Dry Bulb Temperature: +65°C

controlled climb and dive valve

Instrumentation

- Solutions Plus Programmer/Controller
- Digital indication of set-point and temperature
- Type "T" thermocouple sensor
- RS232 and RS422 digital communications
- Event or alarm outputs
- Guaranteed soak and automatic hold

Refrigeration System

- Water cooled condenser
- Copper tubing cooling coils with aluminum fins
- Cascade refrigeration system
- High temperature silphosed or silver soldered joints
- Semi-hermetic compressors
- HFC refrigerants

