

Quality is more than a word

ESPEC

Temperature and Humidity Chambers

Platinous H-Series



ESPEC NORTH AMERICA, INC.

The best test chambers ...

It's not just what we think, it is what our customers say.

As ESPEC North America's flagship product line for twenty five years, Platinous chambers have continually impressed test engineers with long-term reliability and user-friendliness.



Available in 32, 14, and 8 cubic foot interior volumes

Features

ESPEC Platinous series have advanced features for quality and reliability

If you have ever used an environmental chamber before, you'll be quick to appreciate the unique design and friendly features of ESPEC Platinous chambers. First time users will enjoy the ease of use, low maintenance requirements, and high reliability of these chambers.

You can select from a variety of sizes, ranges, and options to meet your specific testing requirements.

In addition to being much more functional, Platinous chambers have a sleek, contemporary appearance that adds a professional touch to your testing operation.

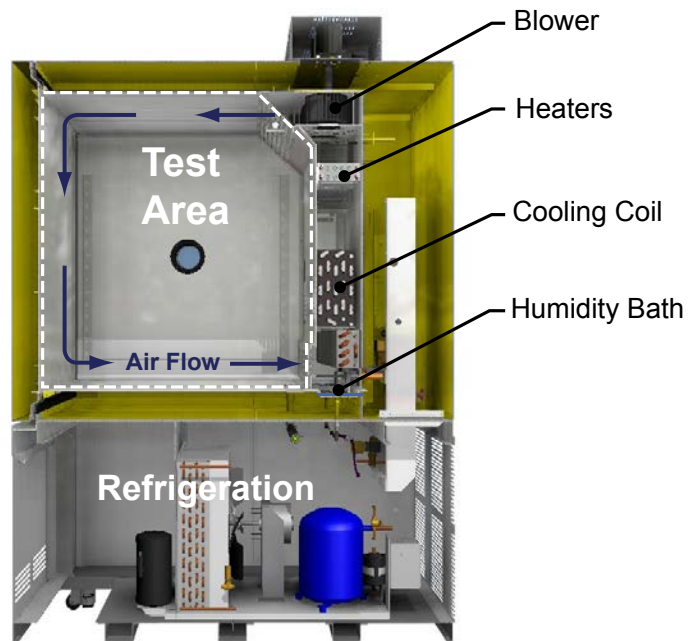
Standard Features

- Stainless steel exterior and interior
- Energy-efficient refrigeration
- Specialized humidity generation and control
- Hinged service panels for easy access
- Unique thermal break construction for extreme testing
- 4" cable port, one shelf & casters included
- ETL-listed electrical panel conforming to UL 508A

Watlow F4T Controller with ESPEC Web Controller

The F4T is a programmer/controller from Watlow with an easy to use touch-screen. It stores up to forty different test profiles. Programming step-types available are: ramp, soak, jump/repeat, auto-start, and end. It includes Ethernet/Modbus access. Two event relays with external output terminals are included for activating other equipment during operation.

For the most ease and power in managing your Platinous chamber, ESPEC includes our Web Controller remote operation interface. It works with any web browser, and includes powerful API and macro capabilities for complex and integrated testing.



Cutaway image shows detail of chamber construction, including how the recirculating airflow is conditioned for optimum performance.



A humidity bath heats water right in the chamber for faster response, and is easier to maintain than traditional steam generators.



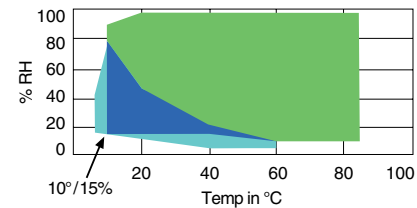
Learn more about ESPEC's Web Controller for Ethernet access and try our live demo at www.espec.com/wc

Specification

EPU and EPL Models: Low Temperature to -35°C (and Humidity)

Temp-only	EPU-2HF	EPU-3HF	EPU-4HF
Temp/Humidity	EPL-2HF	EPL-3HF	EPL-4HF
Workspace volume:	225 L (8 cu. ft.)	408 L (14 cu. ft.)	900 L (32 cu. ft.)
Performance			
Temperature Range:	-35°C to 180°C (-31°F to 356°F)		
Temperature Fluctuation:	±0.5°C (up to 100°C)		±0.5°C (up to 100°C)
Temperature Gradient:	±0.7°C (up to 100°C)		±1.0°C (up to 100°C)
Heating Rate†:	5.5°C/min.	3.25°C/min.	5°C/min.
Cooling Rate†:	5°C/min.	3°C/min.	1.4°C/min.
Humidity Range:	10 to 98% RH (see chart at right, EPL models)		
Humidity Fluctuation:	±2.5%		±3%
Humidity Gradient:	±3%		±5%
Airflow	400 CFM		800 CFM
Dimensions			
Workspace dimensions (WxDxH):	50 x 60 x 75 cm (19.7" x 23.6" x 29.5")	60 x 80 x 85 cm (23.6" x 31.5" x 33.5")	100 x 90 x 100 cm (39.4" x 35.5" x 39.4")
Exterior dimensions (WxDxH):	94 x 122 x 193 cm (37" x 48" x 76")	104 x 140 x 204 cm (41" x 55" x 80")	145 x 148 x 219 cm (57" x 58" x 86")
Site Requirements			
Electrical Supply:	208V 3Ø 60Hz or 230V 3Ø 60Hz		
Breaker: (EPU/EPL)	30/40 Amps	30/40 Amps	45/60 Amps
Condensate Drain:	1/2" hose connection (gravity drain)		

Humidity Range for EPL & EPX Models



Green = standard range
 Blue = optional low humidity range
 Aqua = optional ultra-low range

†Rates are between -20 and 85°C with an empty chamber in a 23°C ambient room and 60 Hz power.

EPZ and EPX Models: Ultra-Low Temperature to -70°C (and Humidity)

Temp-only	EPZ-2HF	EPZ-3HF	EPZ-4HF
Temp/Humidity	EPX-2HF	EPX-3HF	EPX-4HF
Workspace volume:	225 L (8 cu. ft.)	408 L (14 cu. ft.)	900 L (32 cu. ft.)
Performance			
Temperature Range:	-70°C to 180°C (-94°F to 356°F)		
Temperature Fluctuation:	±0.5°C (up to 100°C)		±0.5°C (up to 100°C)
Temperature Gradient:	±0.7°C (up to 100°C)		±1.0°C (up to 100°C)
Heating Rate†:	6°C/m.	5°C/m.	6°C/m.
Cooling Rate†:	4°C/m.	2.5°C/m.	1.2°C/m.
Humidity Range:	10 to 98% RH (see chart at right, EPX models)		
Humidity Fluctuation:	±2.5%		±3%
Humidity Gradient:	±3%		±5%
Airflow	400 CFM		800 CFM
Dimensions			
Workspace dimensions (WxDxH):	50 x 60 x 75 cm (19.7" x 23.6" x 29.5")	60 x 80 x 85 cm (23.6" x 31.5" x 33.5")	100 x 90 x 100 cm (39.4" x 35.5" x 39.4")
Exterior dimensions (WxDxH):	94 x 122 x 193 cm (37" x 48" x 76")	104 x 140 x 204 cm (41" x 55" x 80")	145 x 148 x 219 cm (57" x 58" x 86")
Site Requirements			
Electrical Supply:	208V 3Ø 60Hz or 230V 3Ø 60Hz		
Breaker: (EPZ/EPX)	40/40 Amps	40/40 Amps	50/60 Amps
Condensate Drain:	1/2" hose connection (gravity drain)		

Standard Accessories

- One wire shelf with rails
- Two flexible plugs for standard port, plus cover
- Specimen power safety interlock relay
- External alarm output
- Two time signal relays
- Lock-out breaker
- Maintenance kit
- Wicks & cleaning brush for humidity models

†Rates are between -40 and 125°C with an empty chamber in a 23°C ambient room and 60 Hz power.

Options

Cabinet Options

- Additional adjustable shelves, capacity 35 lbs.
- Heavy duty shelves, up to two, 100 lbs. each
- Additional cable ports with cover and flexible silicone plug



2", 4", or 6" diameters available

- Viewing window with light



8 & 14 cu. ft.: 9" x 10.3" window
32 cu. ft.: 17" x 10" window

- Inner glass door, includes hand ports to manipulate samples.
- Wide view door, includes hand ports on 14 & 32 cu. ft. models. Allowable temperature range -35 to 120°C.



Operational Options

- Water cooling (requires 3 GPM water supply at 75°F or less)
- Water purifying filter for humidity models
- 460/480V power supply instead of standard voltage
- Liquid nitrogen (LN₂) cooling boost for faster cool-downs.
- Dry air purge (dries compressed air, reducing the humidity levels)
- Refrigeration gauges
- Spare parts kit
- Low and ultra-low humidity control systems (see chart on previous page for range)
- Emergency-stop button

- Humidity water supply tank



System has a recirculation mode and holds 5 gallons

- Remote environmentally conditioned air (ECA)



14 & 32 cu. ft. models can be modified to supply conditioned air to a remote chamber

Instrumentation Options

- RS-232 or RS-485 serial interface
- Product temperature control
- Solid state humidity sensor
- Recorders
 - Chino paperless recorders with Ethernet
 - Circular or strip chart recorders

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DANGER

Not for use with specimens which are explosive or flammable, or which contain such substances. To do so could be hazardous, as this may lead to fire or an explosion.

PLATINOUS HF

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