Advanced Test Equipment Corp.

www.atecorp.com 800-404-ATEC (2832)

Quality is more than a word

ESPEC

Temperature and Humidity Chambers

Platinous Series

MADE IN AMERICA 35 YEARS

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 thirty-five years, Platinous chambers have continually impressed test engineers with long-term reliability and user-friendliness.

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

Features

The Platinous series has advanced features for quality and reliability

ESPEC Platinous chambers set the standard for style, quality, and user convenience in environmental testing. First-time users will appreciate their unparalleled ease of use, while advanced users will find the modern controller functions a way to automate and simplify test management.

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

Beyond their impressive functionality, Platinous chambers boast a sleek, contemporary appearance that adds a professional touch to your testing operation.

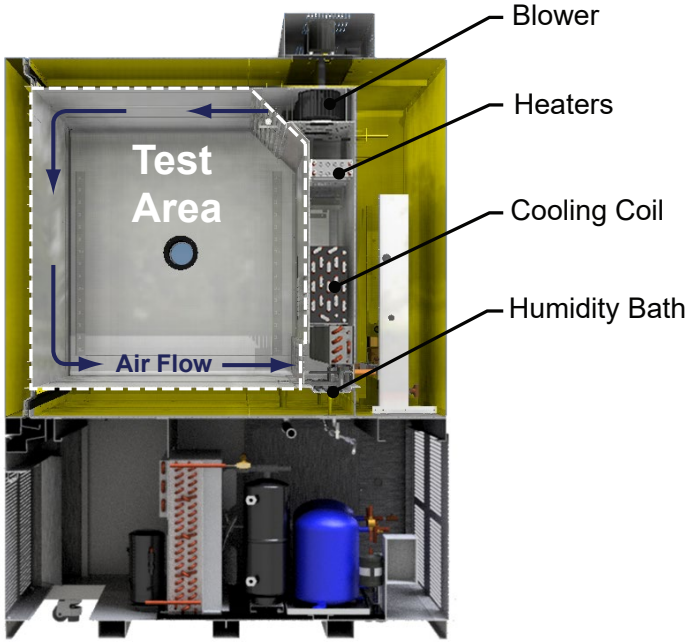
Innovative operation and control

Platinous chambers feature finely tuned refrigeration systems with advanced control algorithms and electronic expansion valves. These enhancements ensure faster temperature ramping, improved stabilization, and significant energy savings—all invisible to the end-user.

Operating an environmental test chamber has never been easier, thanks to the GL control system. The user interface is available from a 10-inch touchscreen or remotely via a web browser. Standard USB and Ethernet interfaces simplify programming and data acquisition, while API functions enable seamless integration with other hardware or software.

Standard Features

- Stainless steel exterior and interior
- Energy-efficient refrigeration with exclusive electronic expansion valve system
- Specialized humidity generation and control
- Hinged service panels for easy access
- One 4" cable port, one shelf, and leveling casters included
- USB and Ethernet ports
- RestFUL API and macros for automation and integration
- ETL-listed electrical panel conforming to UL 508A



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 easier maintainance than traditional steam generators.

Rounded interior corners and black resin thermal breaks around the door and doorframe are unique features found only on ESPEC chambers.

Experience the next level of testing flexibility and functionality

The exclusive ESPEC GL programmer/controller system offers advanced chamber operation, intuitive operation, and expanded functionality. The user interface features simplified navigation for quick access to any function and the remote network operation enables the same functionality anywhere on your network via a browser.

The GL is built on the success of 35 years of engineering and thousands of installed units around the world. The system uses a dedicated controller while a web server manages the user interface and data aquisition. It is built on our popular Web Controller, which has benefited from twenty years of continual development.

Expanded capabilities

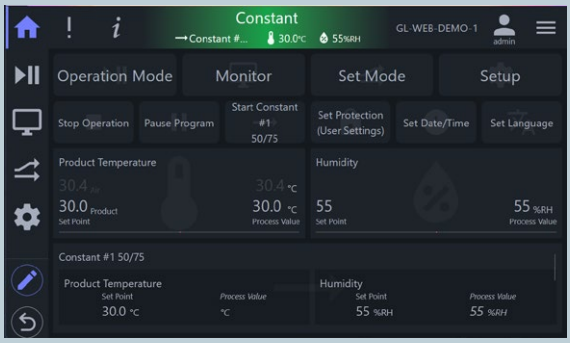
- Store virtually unlimited test profiles that can be downloaded via browser or USB and easily shared with other chambers.
- Over 30 operational parameters can be logged. Downloads to a server or PC can be automated.
- Multilingual display in English, Spanish, or French.
- Alarm diagnostics and history, plus a 'back trace' feature for troubleshooting.
- Programmable timers allow the user to set reminders for maintenance or other actions.

Remote data and programming

Ethernet/LAN Remote Operation: Use ESPEC's Web Controller for remote monitoring, programming, and data logging with email notifications for alarms. The flexible UI is suited for phones and large monitors.

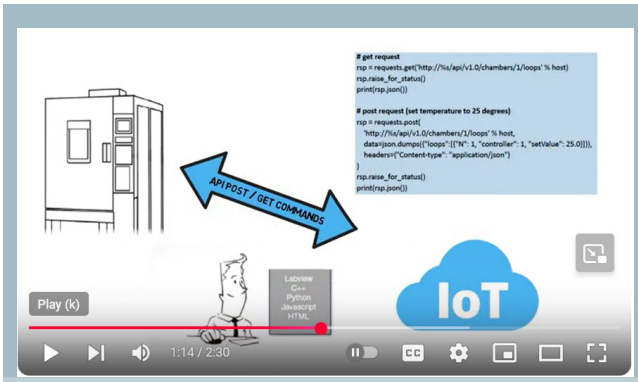
API and Macros: Macros allow you to set alerts or updates to email or other devices, or change chamber operation. The RestFUL API allows direct access and interaction with other software and devices.

Command Protocol Access: The Web Controller supports direct access to GL command protocols, enabling custom programming and integration with other test equipment via Ethernet. Options for RS-232 and RS-485 serial interfaces are also available.



Easy to understand screens allow access to chamber and test configuration settings.

Network view lets you see your Web Controller enabled ESPEC chambers all on one screen. Set up a lab status monitor at no additional effort or cost.



Learn about the magic of APIs and Macros for advanced operation of ESPEC chambers with our two minute explainer video.

Safety Options for Battery Testing

Safety features to match your testing safety plan

Because battery failure is a real risk, environmental chambers need safety systems to protect from harmful and/or damage and ensure operator safety.

The greatest risk is the release of gases from a battery, which are toxic, and may ignite on their own or by the chamber's heaters.

Special low-temperature sheathed heaters are recommended, but additional precautions may be necessary. Options are offered that can protect the user and the chamber itself.

Based on your testing needs and safety requirements, ESPEC can help with the following options to create a complete testing system.

Exact configuration of these options vary by model and customer request.

See a Quick-look video showing these safety options for Platinous chambers.

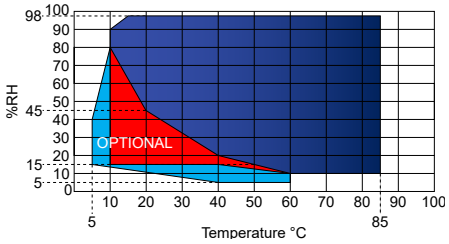
Safety Options	
Chamber ventilation blower with vent port	Ventilation purges chamber with ambient air, activated by gas monitor option
Spark resistant construction	Fan blades, motor port, and sheathed heaters are all spark resistant
Gas monitor systems (H2 and/or CO)	Monitors the chamber workspace for hazardous gas, includes an alarm and light
Fire detection system	Detects fire and shuts down the chamber, includes an alarm and light
Fire suppression system	Suppresses fire with CO2, Argon, or FK-5-1-12, use with fire detection system
Product overheat with product sensor	Protects test load from temperatures that are higher than desired
Product drip tray	Removable/replaceable tray to contain any corrosive leaks
Chamber door switch	Inhibits chamber operation if chamber door is open
Electromagnetic door lock	Prevent operator access during operation
Pressure relief blow-out port	Quickly relieves pressure inside of chamber
Reinforced door latch	Designed to withstand pressure increase due to over pressurization
Port plug restraint	Restrains port plugs from being dislodged due to over pressurization

Specification

EPU and EPL Models: Low Temperature to -30°C (and Humidity)

Temp-only	EPU-2J	EPU-3J	EPU-4J
Temp/Humidity	**EPL-2J**	**EPL-3J**	**EPL-4J**
Workspace volume:	225 L (8 cu. ft.)	408 L (14 cu. ft.)	900 L (32 cu. ft.)
Performance			
Temperature Range:	-30°C to 180°C (-22°F to 356°F)		
Temperature Fluctuation:	±0.3°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):	500 x 600 x 750 mm (19.7" x 23.6" x 29.5")	600 x 800 x 850 mm (23.6" x 31.5" x 33.5")	1000 x 900 x 1000 mm (39.4" x 35.5" x 39.4")
Exterior dimensions (WxDxH):	973 x 1184 x 1934 mm (38.1" x 46.6" x 76.2")	1073 x 1383 x 2034 mm (42.3" x 54.5" x 80.1")	1473 x 1477 x 2184 mm (58.0" x 58.2" x 86.0")
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



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

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

Temp-only	EPZ-2J	EPZ-3J	EPZ-4J
Temp/Humidity	**EPX-2J**	**EPX-3J**	**EPX-4J**
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:	±0.3°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):	500 x 600 x 750 mm (19.7" x 23.6" x 29.5")	600 x 800 x 850 mm (23.6" x 31.5" x 33.5")	1000 x 900 x 1000 mm (39.4" x 35.5" x 39.4")
Exterior dimensions (WxDxH):	973 x 1184 x 1934 mm (38.1" x 46.6" x 76.2")	1073 x 1383 x 2034 mm (42.3" x 54.5" x 80.1")	1473 x 1477 x 2184 mm (58.0" x 58.2" x 86.0")
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 Accesories

- 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

† Per IEC 60068 3-5 except measured at the supply air, with an empty chamber in a 10-25°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

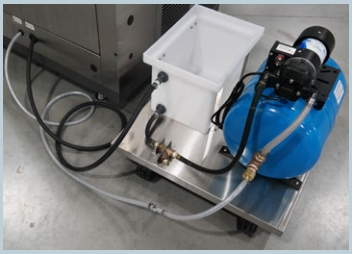
- Viewing window with light

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

- Inner glass door with hand ports to manipulate samples
- Wide view door, extra-large window. Includes hand ports on 14 & 32 cu. ft. models. Allowable temperature range -30 to 120°C.

Operational Options

- Low and ultra-low humidity control systems (see chart on previous page for range, requires compressed air)
- Humidity water purifying filter
- Humidity water supply tank



System has a recirculation mode and holds 11 gallons

- Liquid nitrogen (LN_2) cooling boost for faster cool-downs
- Dry air purge (requires compressed air)
- Refrigeration gauges
- Emergency-stop button
- Water leak containment drip pan
- Leak detector for drip-pan with alarm and water shut-off
- 460V or 50Hz main power
- Water cooling (requires 2 GPM water supply at 75°F or less)
- Seismic bracing

Instrumentation Options

- Product temperature control
- Solid state humidity sensor
- Additional six time-signal relays
- Control sensor outputs for use with data acquisition devices.
- Chino paperless recorder/DAQ with Ethernet and email alarms
- RS-232 or RS-485 serial interfaces
- Chamber Camera: USB Camera inserts in 2" or 4" cable port. Allowable range of -40 to 150°C.

Quick-look video [camera demo at YouTube](#).

1 > SELECT YOUR PLATINOUS ONLINE

View and compare all our temp/humidity chambers with our "Selector Tool" on our website. Drill down to the right chamber based on your testing requirements.

2 > THEN CONFIGURE YOUR PLATINOUS ONLINE

Each chamber model page has a configuration tool allows you to select the options you need and request a quick price quote.

[espec.com/select](#)

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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 J

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