

Quality is more than a word



GLOBAL-N

Temperature Cycling Chambers

Fast Temperature Cycling For Any Application

Excellent performance in a compact footprint,
the Global-N Series offers 85 configurable
models to fit your specific testing requirements.

ADVANTAGES

- ① **Fast Temperature Cycling**
Temperature ramps from 5°C per minute
to as fast as 30°C per minute
- ② **Expansive Model Line**
5 Chamber sizes, 85 models
- ③ **Humidity Testing Option**
Models EGNL and EGNX also have
humidity, for expanded testing options
beyond temperature cycling.
- ④ **GL Control System**
Advanced control with 10" touchscreen,
remote web browser, USB and Ethernet
interface for easy programming and data
acquisition as well as API access.
- ⑤ **Compact Footprint**
Peak performance in the industries' most
compact footprint.



Why does fast temperature cycling matter?

ESPEC's Global-N temperature cycling chamber simulates years of real-world environmental stress in a much shorter period. Every time a product expands and contracts, it stresses solder joints, adhesives, seals, plastics, connectors, batteries, and electronic components.

The faster you can transition between temperatures, the more efficiently you can complete those reliability tests.

- Identify thermal fatigue failures more quickly
- Evaluate more products in the same amount of time
- Increase laboratory throughput
- Shorten product development cycles
- Identify thermal fatigue failures more quickly



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www.espec.com

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Chamber Selection Where To Start

For better assurance of performance for your temperature cycling application, ESPEC can provide a guaranteed performance evaluation based on your submitted requirements.

Use the following questions as a guide to define your test plan.



Product Selector

Chamber Type

Desired size: 4, 12, 16, 28 or 35 cu. ft. (114, 380, 470, 800 or 1000 L)

Water or Air Cooled?

Humidity Control: Yes or No?

Your Sample

Sample description and type of material

Total mass per test, including any racks and cabling

Heat output of samples if powered during test

Your Test Plan

Test method if a published standard (e.g. JEDEC, JESD22-A104C)

Start temperature for cycling

End temperature for cycling

Ramp rate or time allowed between start and end temperatures

Ramp rate measured in the air or on the product

Options to Fit Your Specific Application: 85 possible chamber models

CHAMBER SIZES	Volume	Workspace (WxDxH)	Refrigeration Sizes	Exterior (WxDxH)
	4 cu. ft. (114 L)	19.6" x 15" x 23.6" (498 x 381 x 600 mm)	5-hp water-cooled	30" x 55.5" x 75" (770 x 1409 x 1905 mm)
	12 cu. ft. (380 L)	23.6" x 29.3" x 33.5" (600 x 743 x 850 mm)	4 or 6-hp air-cooled	35" x 83" x 84" (889 x 2103 x 2129 mm)
			4, 6, or 7.5-hp water-cooled	35" x 83" x 70" (889 x 2098 x 1768 mm)
	16 cu. ft. (473 L)	29.5" x 29.3" x 33.5" (749 x 743 x 850 mm)	4 or 6-hp air-cooled	41" x 83" x 84" (1038 x 2098 x 2129 mm)
			4, 6, or 7.5-hp water-cooled	41" x 83" x 70" (1038 x 2098 x 1768 mm)
	28 cu. ft. (800 L)	39.4" x 31.5" x 39.4" (1000 x 800 x 1000 mm)	4 or 6-hp air-cooled	51" x 85" x 90" (1290 x 2159 x 2280 mm)
			4, 6, or 12-hp water-cooled	51" x 85" x 76" (1290 x 2159 x 1920 mm)
			15-hp water-cooled	51" x 121" x 80" (1290 x 3074 x 2014 mm)
	35 cu. ft. (1,000 L)	39.4" x 39.4" x 39.4" (1000 x 1000 x 1000 mm)	4 or 6-hp air-cooled	51" x 93" x 90" (1290 x 2359 x 2280 mm)
			4, 6, or 12-hp water-cooled	51" x 93" x 76" (1290 x 2359 x 1920 mm)
			15-hp water-cooled	51" x 129" x 80" (1290 x 3274 x 2014 mm)

TEMP HUMIDITY CHANGER RATE	Model Prefix	Temperature Range	Humidity Control (see chart below)	Water-Cooled Change Rate
	EGNZ4	-65 to 180°C	—	25-30°C/min
	EGNU	-35 to 180°C	—	5-16°C/min
	EGNL	-35 to 180°C	10 to 95% RH	5-16°C/min
	EGNZ	-70 to 180°C	—	3-20°C/min
	EGNX	-70 to 180°C	10 to 95% RH	3-20°C/min

GL Controller System: Built For Connected Laboratories



Today's quality and reliability laboratories require more than precise environmental control—they need connected equipment that streamlines testing, improves data accessibility and supports automated workflows.

The GL Controller System **helps reduce engineering effort** through browser-based operation, integrated communications and modern software interfaces, enabling **faster deployment, easier remote management and more efficient collection of test data** throughout the product development process.



GL DEMO

- Modern hardware platform
- Ethernet connectivity
- RESTful API
- CSV datalogging
- Email alarms
- Chamber Connect Library
- Intuitive migration from P-300
- Browser-based operation

Learn more about the Global-N at
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