

# Mechanical HALT



## Standard Features

### Refrigeration

- ESPEC Cascade refrigeration
- Boost LN<sub>2</sub> injection - optional

### Controls:

- ESPEC integrated P-300 controller with color touch screen

xLF2 Vibration Table

## FUSING MECHANICAL REFRIGERATION AND ACCELERATED TESTING

ESPEC offers a compressor based HALT system, that brings a whole new level of accessibility and achievability to customers and locations where traditional HALT systems just aren't feasible. Whether LN<sub>2</sub> is difficult or too costly to attain and maintain, or the infrastructure just doesn't allow for LN<sub>2</sub>, this is your answer. The random shock vibration table provides the complete combined environment needed for full HALT testing. This is a robust system built on the proven, quality technologies from ESPEC and the Qualmark product line, so you know you are investing in the best.

<b>Work Space</b>	39.4" w x 45.0" d x 26.1" h (1000 mm x 1143 mm x 663 mm)
<b>Outer Dimensions<sup>1</sup></b>	EQGNZ27-6NAL2.5: 50.7" w x 98.3" d x 89.7" h (1288 mm x 2497 mm x 2278 mm) EQGNZ27-12NWL2.5: 50.7" w x 98.3" d x 76.0" h (1288 mm x 2497 mm x 1920 mm) EQGNZ27-15NW2.5: 50.7" w x 134.3" d x 79.3" h (1288 mm x 3411 mm x 2014 mm)
<b>Table Size</b>	30.0" x 30.0" (762 mm x 762 mm)
<b>Actuators</b>	(8) Eight pneumatic, impulse-type Lubricant-free actuators
<b>Table Capacity</b>	320 lb (145 kg)
<b>Acceleration</b>	5 – 75 gRMS (10 Hz to 5000 Hz) <sup>1</sup>
<b>Temp Range</b>	+180°C to -70°C
<b>Weight</b>	EQGNZ27-6NAL2.5: 2900 lb (1318 kg) EQGNZ27-12NWL2.5: 2470 lb (1120 kg) EQGNZ27-15NW2.5: 3970 lb (1800 kg)

<sup>1</sup> Measured on bare table; maximum Grms level dependent on table loading.

Since ESPEC continually improves product and service offerings, specifications are subject to change without notice. Please check with ESPEC to ensure you have the latest specification.

## Mechanical HALT includes:

- One (1) year warranty
- Operations & Maintenance manual
- One (1) accelerometer for table control
- One (1) 20 ft accelerometer cable
- One (1) thermocouple for air temperature control
- Dry air purge (10 SCFM)

### Chamber Options:

- QDaq - Data Acquisition System
- Spectrum Analyzer
- Additional cable ports: 2" (50 mm), 4" (100 mm), or 6" (150 mm)

### Control:

- ESPEC Integrated P-300 Controller



## Temperature Rate of Change<sup>3</sup>

Model	Dry HEaters	Compressor	Heating °C/min Average Rate		Cooling °C/min Average Rate		Live Load			
			400V	460V	50Hz	60Hz	23 °C		-50 °C	
							50 Hz	60 Hz	50 Hz	60 Hz
EQGNZ27-6NAL2.5	10 kW	6 hp x 2	8	8	4.5	5	5.2	6.2	3	3.6
EQGNZ27-12NWL2.5	15 kW	12 hp x 2	12	12	9	10	5.8	7	4.2	5
EQGNZ27-15NW2.5	20 kW	15 hp x 3	15	15	15	15	10	12	7.8	9.4

<sup>3</sup> per IEC 60068 3-5 except measured in supply air

## Utilities - Power (Service Size, Amps)

Model	400V – 3φ – 50Hz*	460V – 3φ – 60Hz**	Cooling
EQGNZ27-6NAL2.5	50 A	45 A	Integrated-Air
EQGNZ27-12NWL2.5	80 A	70 A	Water
EQGNZ27-15NW2.5	100 A	100 A	Water

\* 400V +/-5% \*\* 460V +10%/-5%

### Refrigeration Cooling:

- Air Cooled (Built-in)

Model	Heat Rejection to Ambient (BTU/Hr)
EQGNZ27-6NAL2.5	60,000

- Water Cooled

Model	Water <sup>4,5</sup> (gpm) @ 30°C	Connection Size (NPT)
EQGNZ27-12NWL2.5	27	1 ¼"
EQGNZ27-15NW2.5	32	1 ¼"

<sup>4</sup> Minimum 30 psi differential pressure

<sup>5</sup> Flow rate and pressure vary with water temperature. Detailed flowrate charts available upon request.