

Typhoon 2.5+



Part Number: 971-4200

Standard Features

- High Rate, High Flow Typhoon Thermal System
- xLF2 Vibration Table with PSD Management
- Vacuum Jacketed Manifold
- PLC Control
- Desktop PC with Monitor
- Typhoon Manager Software

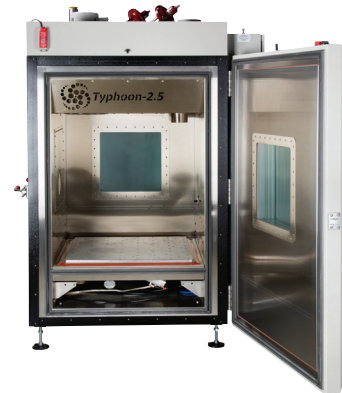
ESPEC's Qualmark Typhoon™ 2.5+ is a popular chamber with a 30" x 30" vibration table. This table size is a good size for Highly Accelerated Life Testing (HALT) applications and many Highly Accelerated Stress Screening (HASS) applications. The table can be mounted in an upper or lower position, to suit different product and ergonomic requirements.

Work Space	Lower Table Position
	35.0" w x 35.0" d x 35.0" h (889 mm x 889 mm x 889 mm)
	Upper Table Position
	35.0" w x 35.0" d x 25.0" h (889 mm x 889 mm x 635 mm)
Outer Dimensions	46.8" w x 61.6" d x 86.4" h (1188 mm x 1565 mm x 2193 mm)
	Outer Dimensions 131.0" w x 67.6" d x 86.4" h (3329 mm x 1716 mm x 2193 mm)
Table Size	30" x 30"
	(762 mm x 762 mm)
Actuators	8 Actuators
	Lubricant-free
Table Capacity ¹	320 lb (145 kg)
Acceleration ²	5 – 75 gRMS
Temp Range	+200°C to -100°C
Thermal Ramp Rate ³	70°C/min
Power Requirements	480V, 440V
	3Φ
	50/60Hz,
	60A (Service Rating)
	400V, 380V
	3Φ
50/60Hz	
80A (Service Rating)	

See Qualmark product line brochure for configuration options, accessories, and post warranty service and maintenance plans. All specifications are subject to change without notice.

Typhoon 2.5+ System includes:

- Two (2) year warranty
- Operations & Maintenance manual
- One (1) accelerometer for table control, Three (3) additional accelerometer input channels available
- Two (2) 72" high temperature thermocouples - one (1) for product, one (1) for air
Four (4) additional thermocouple input channels available
- One (1) 20 ft accelerometer cable
- Eight (8) User State Relays (USR)
- Control PC with Windows® operating system and monitor



Vibration Features	Table Top	30" x 30" (762 mm x 762 mm)
	Table Top Hardware	64 threaded holes 3/8-16 on 4" centers; M10 optional
	Actuators	8 pneumatic, impulse-type, lubricant-free actuators
	Vibration	Six degree of freedom, random, OmniAxial™ broadband excitation
	PSD Management	Monitor and reset to factory specification for Power Spectral Density (PSD)
	Table Product Capacity ¹	320 lb (145 kg)
Vibration Range ²		5 - 75 gRMS (10 Hz to 5000 Hz)
Thermal Features	Heating System	Open-element nichrome type
	Cooling System	Vacuum jacketed liquid nitrogen injection
	Temperature Range	+200°C to -100°C (+392°F to -148°F)
	Thermal Ramp Rate ³	70°C /minute
Internal Features	Interior Dimension	Table in Lower Position: 35.0"w x 35.0"d x 35.0"h (889 mm x 889 mm x 889 mm) Table in Upper Position: 35.0"w x 35.0"d x 25.0"h (889 mm x 889 mm x 635 mm)
	Interior Construction	Stainless steel
	Lighting	1 recessed ceiling light
Exterior Features	Exterior Dimensions	46.8"w x 61.6"d x 86.4"h (1188 mm x 1565 mm x 2193 mm)
	Doors	2 doors, one on each side; each door opens 105°
	External Construction	Painted steel construction with stainless steel trim
	Windows	(2) 17" x 17" (432 mm x 432 mm) multi-pane windows, 1 in each door
	Access Ports	(1) 6" (152 mm) round port with phenolic cover. Custom wall panel available.
	Door Locks	System prohibits system operation when any door is ajar
Sound		73 dBA at 50 gRMS (at 1 meter)
Control	Vibration/Temperature	PLC based, PC
	PLC Based, PC	Typhoon Manager
	Operating System	Microsoft Windows
	Safety	Eurotherm temperature (independent safety)
Utilities	Electrical	480V, 440V, 3Φ, 50/60 Hz, 60A; 400V, 380V, 3Φ, 50/60Hz, 80A
	Air	64 SCFM @ 85 psi (1.8 m ³ /min at 5.9 bar)

1. Greater load capacities can be designed; contact ESPEC for custom options.
2. Measured on bare table; maximum gRMS level dependent on table configuration.
3. Measured as the average rate between -65°C and 85°C in open air 3" above table center (in an empty chamber); levels vary by make and model.

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