

Typhoon 8.0+



Part Number: 971-4008

Standard Features

High Rate, High Flow
Typhoon Thermal System

xLF2 Vibration Table with
PSD Management

(2x) Vacuum Jacketed Manifold

PLC Control

Desktop PC with Monitor

Typhoon Manager Software

ESPEC's Qualmark Typhoon™ 8.0+ doubles the table size of our popular Typhoon 4.0+ chamber. The thermal system in the Typhoon series has been carefully engineered to have superior thermal efficiency. Key design elements such as our patented blower technology, highly efficient air flow characteristics and careful choice of materials have combined to keep liquid nitrogen and electricity costs down without compromising our industry standard thermal performance. The Typhoon 8.0+ has the largest vibration table available in a HALT/HASS chamber.

Work Space	Lower Table Position
	108.7" w x 54.0" d x 53.6" h (2761 mm x 1372 mm x 1362 mm)
Work Space	Upper Table Position
	108.7" w x 54.0" d x 34.6" h (2761 mm x 1372 mm x 879 mm)
Outer Dimensions	123.7" w x 79.1" d x 108.4" h (3143 mm x 2009 mm x 2753 mm)
Table Size	100" x 48" (2540 mm x 1219 mm)
Actuators	24 Actuators Lubricant-free
Table Capacity¹	1200 lb (544 kg)
Acceleration²	5 – 75 gRMS
Temp Range	+200°C to -100°C
Thermal Ramp Rate³	70°C/min
Power Requirements	380V, 400V, 440V, 480V 3Φ 50/60Hz, 200A (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 8.0+ System includes:

- Two (2) year warranty
- Operations & Maintenance manual
- Two (2) accelerometers for table control provided
Three (3) additional accelerometer input channels available
- Two (2) 72" thermocouples provided - one (1) for product, one (1) for air
Ten (10) additional thermocouple input channels available
- Two (2) 20 ft accelerometer cables
- Eight (8) User State Relays (USR)
- Control PC with Windows® operating system and monitor



Vibration Features	Table Top	100" x 48" (2540 mm x 1219 mm)
	Table Top Hardware	300 threaded holes 3/8-16 on 4" centers; M10 optional
	Actuators	24 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	1200 lb (544 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/min
Internal Features	Interior Dimension	Table in Lower Position: 108.7" w x 54.0" d x 53.6" h, (2761 mm x 1372 mm x 1362 mm) Table in Upper Position: 108.7" w x 54.0" d x 34.6" h, (2761 mm x 1372 mm x 879 mm)
	Interior Construction	Stainless steel
	Plenum Exit	Adjustable airflow to direct air to the product
	Lighting	4 recessed ceiling lights
Exterior Features	Exterior Dimensions	123.7" w x 79.1" d x 108.4" h (3143 mm x 2009 mm x 2753 mm)
	Doors	4 automated locking doors, two on each side; each door opens 150°
	External Construction	Painted steel construction with stainless steel trim
	Windows	(4) 17" x 17" (432 mm x 432 mm) multi-pane windows, 1 in each door (2) 17" x 17" (432 mm x 432 mm) multi-pane windows in the front wall
	Access Ports	(8) 6" (152 mm) ports with phenolic covers, 4 on front, 4 on back
	Door Lock Sound	Interlocking system prohibits system operation when any door is ajar 73 dBA at 30 gRMS (at 1 meter)
Control	Vibration/Temperature Interface	PLC based, PC Typhoon Manager
	Operating System	Microsoft Windows
	Safety	Eurotherm temperature (independent safety)
Utilities	Electrical	380V, 400V, 440V, 480V, 3Φ, 50/60 Hz, 200A
	Air	192 SCFM Max @ 85 psi (5.4 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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