

Typhoon 2.0



Part Number: 971-4020
971-4022 (3 Phase)

Standard Features

- High Rate, High Flow Typhoon Thermal System
- xLF2 Vibration Table with PSD Management
- Allen-Bradley PLC Control
- Desktop PC with a 17" Monitor
- Typhoon Manager Software

The Typhoon 2.0, with its 24" x 24" vibration table, is perfect for performing Highly Accelerated Life Testing (HALT) on small products, or where limited lab space is available. This compact system is built using Qualmark's Typhoon system technology which delivers impressive thermal performance and six-degree-of-freedom repetitive-shock vibration. The Typhoon 2.0 is a practical addition to any company's product reliability program.

Work Space	27" w x 27" d x 19.5" h (686 x 686 x 496mm)
Outer Dimensions	38.8" w x 46.1" d x 79.9" h (985.2 x 1171.3 x 2030mm)
Table Size	24" x 24" (610 x 610mm)
Actuators	5 Actuators Lubricant-free
Table Capacity¹	100lbs (45kg)
Acceleration²	5 – 75 gRMS typical >100 gRMS special order
Temp Range	+200°C to -100°C
Thermal Ramp Rate³	70°C – 100°C/min average
Power Requirements	208V, 230V (1Φ), 50/60Hz 70A (Service Rating) 380V, 400V, 440V, 480V 3Φ 50/60Hz 25A (Service Rating)

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

Typhoon 2.0 System Includes:

- One (1) year warranty
- System start-up by a Qualmark certified service engineer
- System and software orientation
- Operations & Maintenance manual
- One (1) accelerometer for table control provided;
Three (3) additional accelerometer input channels available
- Two (2) 72" thermocouples provided - one (1) for product, one (1) for air;
Four (4) additional thermocouple input channels available
- One (1) 10 ft. accelerometer cable
- Eight (8) User State Relays (USR)
- Control PC with Windows® operating system and 17" flat screen monitor



Vibration Features	Table Top	24" x 24" (610 x 610mm)
	Table Top Hardware	36 threaded holes 3/8-16 on 4" centers (M10 optional)
	Actuators	5 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	100 lbs. (45 kg)
	Vibration Range ²	5 - 75 gRMS (10 Hz to 5000 Hz) typical (>100 gRMS special order)
Thermal Features	Heating System	Open-element nichrome type
	Cooling System	Liquid nitrogen - insulated solenoid valve
	Temperature Range	+200°C to -100°C (+392°F to -148°F)
	Thermal Ramp Rate ³	70°C - 100°C /minute average
Internal Features	Interior Dimensions	27"w x 27"d x 19.5"h (686 x 686 x 496mm)
	Interior Construction	Stainless steel
	Plenum Exit	Adjustable airflow to direct air to product
	Lighting	1 recessed ceiling light
Exterior Features	Exterior Dimensions	38.8"w x 46.1"d x 79.9"h (985 x 1171.3 x 2030mm)
	Doors	1 door, opens approximately 130°
	External Construction	Painted steel construction with stainless steel trim
	Windows	(1) 16" x 16" (406 x 406mm) multi-pane window in the door
	Access Ports	(1) 4" port with phenolic cover, on side
	Door Locks	Sensor-activated shut down if door opens during operation
	Sound	Nominally 73 dB (A) 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	208V, 1Φ, 50/60 Hz, 70A -- 230V, 1Φ, 50/60 Hz, 70A 400V, 3Φ, 50/60 Hz, 25A -- 480V, 3Φ, 50/60 Hz, 25A
	Air	40 SCFM Max @ 80 PSI (1.13 m3 /min. at 5.52 bar)

1. Greater load capacities can be designed; contact Qualmark for custom options.
2. Measured on bare table; maximum gRMS level dependent on table configuration.
3. Measured -65°C to 85°C in open air 3" above table center; levels vary by make and model.

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