Typhoon 1.5

The Typhoon 1.5, with its 18" x 18" 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 1.5 is a practical addition to any company's product reliability program.

Part Number: 971-4019
971-4021 (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

Work Space	27"w x 27"d x 19.5"h (686 x 686 x 496mm)
Outer Dimensions	38.8"w x 47.0"d x 80.9"h (985 x 1194 x 2055mm)
Table Size	18" x 18" (457 x 457mm)
Actuators	4 Actuators Lubricant-free
Table Capacity[1]	80lb (36 kg)
Acceleration[2]	5 – 70 gRMS
Temp Range	+200°C to -100°C
Thermal Ramp Rate[3]	70°C/min average 70°C/min average (3 Phase)
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 1.5 System includes:

- Two (2) year warranty
- 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	18" x 18" (457 x 457mm)
	Table Top Hardware	25 threaded holes 3/8-16 on 4" centers (M10 optional)
	Actuators	4 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]	80 lb (36 kg)
	Vibration Range[2]	5 - 70 gRMS (10 Hz to 5000 Hz)

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]	208V/230V Single Phase: 60°C/min average
		380V, 400V, 440V, 480V 3 Phase: 70°C/min average

Internal Features		
	Interior Dimension	27.0"w x 27.0"d x 19.5"h (686 x 686 x 494mm)
	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 47.0d x 80.4"h (985 x 1194.3 x 2055mm)
	Doors	1 door, opens approximately 130°
	External Construction	Painted steel construction with stainless steel trim
	Windows	(1) 15" x 15" (381 x 381mm) multi-pane window in the door
	Access Ports	(1) 4" (102mm) port with phenolic cover, on side
	Door Lock	Sensor-activated shut down if door opens during operation
	Sound	Nominally 73 dBA at 1 meter

Control		
	Vibration/Temperature	PLC based, PC
	Interface	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	32 SCFM @ 85 psi (0.9 m³/min. at 5.9 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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