

# Typhoon 2.5+ Inferno



Part Number: 971-4300

### Standard Features

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

Qualmark's Inferno series has been specifically designed for accelerated testing of sophisticated devices that are destined for harsh operating environments. Our Infernos combine extreme thermal capability (+250°C to -100°C) with 6 degree of freedom random vibration to provide the stimulation necessary to analyze design weaknesses and extend operational margins for mechanisms expected to withstand severe physical hardships.

<b>Work Space</b>	Lower Table Position 35.0" w x 35.0" d x 35.0" h (889 x 899 x 899mm) Upper Table Position 25.0" w x 25.0" d x 25.0" h (635 x 635 x 635mm)
<b>Outer Dimensions</b>	46.8" w x 61.6" d x 86.4" h (1188 x 1565 x 2193mm) * Doors Closed
<b>Outer Dimensions</b>	131.0" w x 67.6" d x 86.4" h (3229 x 1716 x 2193mm) * Doors Open
<b>Table Size</b>	30" x 30" (900 sq-in.) (762 x 762mm)
<b>Actuators</b>	8 Actuators Lubricant-free
<b>Table Capacity<sup>1</sup></b>	320 lb (145 kg) standard
<b>Acceleration<sup>2</sup></b>	5 – 75 gRMS >100 gRMS special order
<b>Temp Range</b>	+250°C to -100°C
<b>Thermal Ramp Rate<sup>3</sup></b>	70°C – 100°C/min average
<b>Power Requirements</b>	480V, 440V 3Φ 50/60Hz, 100A (Service Rating) 400V, 380V 3Φ 50/60Hz 120A (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 2.5+ Inferno System includes:

- Two (2) year warranty
- Operations & Maintenance manual
- One (1) accelerometer for table control  
Three (3) additional accelerometer input channels available
- Two 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 flat panel monitor
- Air purge system
- Table control accelerometer cooling system



<b>Vibration Features</b>	Table Top	30" x 30" (762 x 762mm)
	Table Top Hardware	64 threaded holes 3/8-16 on 4" centers; M10 optional; 100MM centers 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 <sup>1</sup>	320 lb (145 kg)
Vibration Range <sup>2</sup>		5 - 75 gRMS (10 Hz to 5000 Hz)
<b>Thermal Features</b>	Heating System	Open-element nichrome type
	Cooling System	Vacuum jacketed liquid nitrogen injection
	Temperature Range	+250°C to -100°C (+482°F to -148°F)
	Thermal Ramp Rate <sup>3</sup>	70°C/min average
<b>Internal Features</b>	Interior Dimension	Table in Lower Position: 35.0"w x 35.0"d x 35.0"h (889 x 889 x 889mm) Table in Upper Position: 25.0"w x 25.0"d x 25.0"h (635 x 635 x 635mm)
	Interior Construction	Stainless steel
	Plenum Exit	Flexible aluminum ducting directs air to the product
	Lighting	1 fiber optic light
<b>Exterior Features</b>	Exterior Dimensions	46.8"w x 61.6"d x 86.4"h (1188 x 1565 x 2193 mm)
	Doors	2 locking doors, one on each side; each door opens 105°
	External Construction	Painted steel construction with stainless steel trim
	Windows	(2) 17" x 17" (432 x 432mm) multi-pane windows, 1 in each door
	Access Ports	(1) 6" (152mm) round port with phenolic cover. Custom wall panel available.
	Door Locks	System prohibits system operation when any door is ajar
	Sound	73 dBA at 50gRMS (at 1 meter)
<b>Control</b>	Vibration/Temperature	PLC based, PC
	PLC Based, PC	Typhoon Manager
	Operating System	Microsoft Windows
	Safety	Eurotherm temperature (independent safety) Thermal safety system prevents doors from opening during thermal extremes
<b>Utilities</b>	Electrical	480V, 440V, 3Φ, 50/60 Hz, 80A; 400V, 380V, 3Φ, 50/60Hz, 100A
	Air	64 SCFM Max @ 85 psi (1.81 m <sup>3</sup> /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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