

# 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
- Allen-Bradley PLC Control
- Desktop PC with a 17" Monitor
- Typhoon Manager Software

Qualmark's NEW 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.

<b>Work Space</b>	Lower Table Position 35.0" w x 35.0" d x 35.0" h (889 x 889 x 889mm) Upper Table Position 35.0" w x 35.0" d x 35.0" h (889 x 889 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 (3329 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)
<b>Acceleration<sup>2</sup></b>	5 – 75 gRMS
<b>Temp Range</b>	+200°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, 60A (Service Rating) 400V, 380V 3Φ 50/60Hz 80A (Service Rating)



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Technical Sales Offices:	
San Diego	(619) 540-2200
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Canada	(778) 650-5236
NW Main Office	(971) 244-8200
info@W5engineering.com	
1-866-400-1300	

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+ 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 17" flat screen monitor



<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	+200°C to -100°C (+482°F to -148°F)
	Thermal Ramp Rate <sup>3</sup>	70°C /minute 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: 35.0" w x 35.0" d x 25.0" h (889 x 889 x 635mm)
	Interior Construction	Stainless steel
	Lighting	1 recessed ceiling 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 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 50 gRMS (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)
<b>Utilities</b>	Electrical	480V, 440V, 3Φ, 50/60 Hz, 60A; 400V, 380V, 3Φ, 50/60Hz, 80A
	Air	60 SCFM @ 85 psi (1.80 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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