



CHAMBER: TYPHOON 2.0

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 chamber technology, with its impressive thermal performance, six-degree-of-freedom, repetitive-shock vibration, and up to 60% savings in utility costs. The Typhoon 2.0 is a practical addition to any company's product reliability program.

PART NUMBER: 971- 4020
971- 4022 (3 Phase)

STANDARD FEATURES

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

OUTER DIMENSIONS

38.8"w x 46.1"d x 79.9"h
(985.2 x 1171.3 x 2030mm)

WORK SPACE

27"w x 27"d x 19.5"h
(686 x 686 x 496mm)

TABLE SIZE

24" x 24"
(610 x 610mm)

POWER REQUIREMENTS

208V, 230V(1Φ), 380V
400V, 440V, 480V
3Φ
50/60Hz, 70A(1Φ)
60A (3Φ) (Service Rating)

TEMP RANGE

+ 200°C to -100° C

THERMAL RAMP RATE*

(1Φ) >60°C/min average
(3Φ) >70°C/min average

** - 65°C to 85°C in open air 3" above table center*

ACCELERATION

5 - 50 GRMS

**Higher GRMS available by special order*

TABLE CAPACITY

Recommended 100lbs (45kg)
Maximum* 200lbs (90kg)

**may Require Custom Options*

5 ACTUATORS

ACCESSORIES

CE KIT (INTERNATIONAL)

HALT FIXTURE KIT

MULTIPLE DEWAR KIT

CALIBRATION KIT

OXYGEN SENSORS

CABLE NOTCH

Q-LINK SOFTWARE

DOOR LOCK KIT

NEW! QUALVIEW

QUALMARK SPECTRUM ANALYZER

PCA QUICK RELEASE FIXTURE

AUXILIARY THERMOCOUPLES

ACCESS PORTS AND OPTIONAL WINDOWS

KEEPFUL VACUUM INSULATED LIQUID LEVEL

GHI SPECTRUM & FATIGUE ANALYZER

PCBV ADHESIVE-MOUNT ACCELEROMETER

REDUNDANT VIBRATION ACCELEROMETER KIT

Typhoon-2.0 Features



Included

- 1 Year Warranty
- Start-up Of a Complete System by a Service Engineer
- Customer Training with The PLC Control System
- Operations & Maintenance Manual
- One Accelerometer for Table Control Provided; and (3) additional accelerometer input channels available.
- Two 72" thermocouples provided; (1)for Product, (1)for Air, and (4) additional thermocouple input channels available.
- (1) 10 ft Accelerometer Cable
- (8) User Controllable Solid State Relays
- Control PC with Windows Operating System and a 17" Flat Screen Monitor

Manufacturer certified under specified test range and load conditions.

Vibration Features

Table Top	24" X 24" (610mm X 610mm)
Table Top Hardware	(36) Threaded Holes 3/8-16 On 4" Centers
Actuators	5 Pneumatic, Impulse-type Vibrators
Vibration	Six Degree Of Freedom, Random, Omni-Axial™ Broadband Excitation
Table Product Capacity	Recommended 100 Lbs. (45kg) Maximum* 200lbs (90kg) *may Require Custom Options
Vibration Range	5 - 50 Grms (10hz To 5khz)
Vibration Overshoot	< 2 Grms
Vibration Dwell	+/- 1 Grms

Thermal Features

Heating System	Open-element Nichrome Type
Cooling System	Liquid Nitrogen Injection
Temperature Range	+200°C To -100°C (+392°F To -148°F)
Thermal Ramp Rate	>100°C /min peak >60°C /min average**(1Φ) >70°C /min average**(3Φ)
Thermal Overshoot	< 5°C
Thermal Dwell	+/- 1°C

Requirements

Electrical Requirements	208V, 1Φ, 50/60 Hz, 70A -- 230V, 1Φ, 50/60 Hz, 70A 400V, 3Φ, 50/60 Hz, 60A -- 480V, 3Φ, 50/60 Hz, 60A
Air Requirements	32 SCFM Max @ 80 PSI (0.91 m3 /min. at 5.52 Bar)
Sound Level	Nominally 73 dB (A) at 1 meter

**-. 65°C to 85°C in open air 3" above table center

Internal Features

Interior Dimensions	27"w x 27"d x 19.5"h (686mm x 686mm x 496mm)
Interior Construction	Stainless Steel
Upper Corner Plenum	Adjustable Airflow To Direct The Air To The Product
Lighting	Recessed Ceiling Light

Exterior Features

Exterior Dimensions	38.7"w x 46"d x 79.9"h (983mm x 1168mm x 2030 mm)
Doors	(1) Door, For Easy Product Access
External Construction	Painted Steel Construction With Stainless Steel Trim
Windows	16"x 16" (406mm x 406mm) Multi-pane Window In The Door
Access Ports	(1) 4" Port With Phenolic Cover, On Side
Door Interlocks	Inhibit Thermal And Vibration System Operation When Door Is Ajar

Control

Vibration/Temperature	PLC based, PC Driven
User Interface	Typhoon Manager
Operating System	Microsoft Windows
Safety	Eurotherm Temperature