



CHAMBER 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 chamber technology. With its impressive thermal performance and six-degree-of-freedom, repetitive-shock vibration, and 30% to 60% savings in utility costs, the compact Typhoon 1.5 is a practical addition to a company's product reliability program.

PART NUMBER: 971- 4019
971- 4021 (3 PHASE)

CONFIGURABLE FEATURES

- MAIN SUPPLY VOLTAGE
- VIBRATION TABLE
- LN₂ SYSTEM
- COMPUTER
- SOFTWARE

WORK SPACE

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

TABLE SIZE

18" x 18"
(457 x 457mm)

OUTER DIMENSIONS

38.7" w x 46" d x 79.9" h
(983 x 1168 x 2030mm)

ACCELERATION

Over 50 G

TEMP RANGE

+ 200° C to -100° C

POWER REQUIREMENTS

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

4 ACTUATORS

ACCESSORIES

- CE KIT (INTERNATIONAL)
- HALT FIXTURE KIT
- MULTIPLE DEWAR KIT
- CALIBRATION KIT
- OXYGEN SENSORS
- CABLE NOTCH
- Q-LINK SOFTWARE
- DOOR LOCK KIT
- QUALMARK SPECTRUM ANALYZER
- REDUNDANT VIBRATION ACCELEROMETER KIT
- GHI SPECTRUM & FATIGUE ANALYZER
- KEEPFUL VACUUM INSULATED LIQUID LEVEL
- PCBV ADHESIVE-MOUNT ACCELEROMETER KIT
- PCA QUICK RELEASE FIXTURE CLAMP & WITHOUT CLAMP

Typhoon-1.5 Features

Included

- 1 year warranty
- Start-up and check out of complete system by a factory trained field service engineer
- Customer training on using the PC control system
- Operations & Maintenance Manual
- Table Control Accelerometer and Cable
- 3 Thermocouples Provided
- Product and air chamber control thermocouples
- (8) user controllable solid state relays
- (4) auxiliary thermocouple input channels
- (3) auxiliary vibration input channels
- Control PC with Windows operating system
- 17" Monitor



Vibration Features

Table Top	18" x 18" (457mm x 457mm)
Table Top Hardware	(25) threaded holes 3/8-16 on 4" centers
Actuators	4 pneumatic, impulse-type actuators
Vibration	Six degree of freedom, random, Omni-Axial™ broadband excitation
Modulation	ASX Actuators
Table Product Capacity	Recommended 80 lbs. (36kg) Maximum* 160lbs (72.57kg) *may require custom options
Vibration Specs	50 Grms (10Hz to 5kHz) 60 Grms (10 HZ to 1kHz)

Thermal Features

Heating System	Open-element NiChrome type
Cooling System	Liquid Nitrogen Injection
Temperature Range	+200°C to design limit -100°C to design limit (+392°F to -148°F)
Temperature Change Rate	200°C/min (max ramp rate) 70°C/min from -50°C to +150°C (typical HALT range) 60°C/min from -50°C to +120°C (example range)

Internal Features

Interior Dimensions	27" w x 27" d x 19.5" h (686mm x 686mm x 496mm)
Interior Construction	304 Stainless Steel
Upper Corner Plenum	Adjustable airflow to direct the air to the product
Lighting	Recessed ceiling lights

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 stainless 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 when door is ajar
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 (1.91 m3 /min. at 5.52 Bar)
Sound Level	Nominally 73 dB (A) at 1 meter

Control

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