

INTRODUCING ...



Portable Rapid Testing System

Standard Features

- Introductory Level Rapid Testing System provides combined Environment Accelerated Testing:
 - Rapid Thermal changes from +200° C to -100° C
 - Six Degree of Freedom Repetitive Shock Vibration
- Portable for easy movement between departments
- Easy to use with preset programs & remote monitoring
- xLF2 Vibration Table with PSD Management

Work Space	19.0" w x 16.0" d x 10.5" h (483 x 406 x 267mm)
Outer Dimensions	32.7" w x 43.8" d x 56.1" h (832 x 1113 x 1425mm)
Table Size	16.0" w x 12.0" d (406 x 305mm)
Table Capacity	50 lb (23 kg)
Actuators	2 Lubricant-free Actuators
Acceleration	4 – 40 gRMS
Temp Range	+200°C to -100°C
Thermal Ramp Rate ²	Heating: 35°C/min average Cooling: 40°C/min average
Power Requirements	208VAC / 40A / 1Φ 50/60Hz 240VAC / 40A / 1Φ 50/60Hz 208VAC / 30A / 3Φ 50/60Hz 400VAC / 20A / 3Φ 50/60Hz

*Patent Pending

Thousands of companies embrace combined environment accelerated testing that includes vibration (typically on an ED Shaker) and thermal testing, to rapidly improve the reliability of their electronic product designs. Conducting this practice early is most beneficial, as reliability can most easily be improved early in the development process.

Qualmark's new Portable Rapid Testing System takes this to a whole new level. HawQ preys on and exposes failure points, and screams through thermal testing in a fraction of the time of traditional thermal chambers. This leading edge system allows



you to conduct rapid testing with thermal change rates of 35°C/min from -100° to +200°C! By maximizing the thermal cycles performed in 24 hours, you slash your testing time! Time is money, and HawQ will help you save it! But not just that, HawQ also delivers Six Degree of Freedom vibration at the simple push of a button. By utilizing the ultimate combined environment of rapid thermal changes plus vibration, your designs will fly through reliability testing. "Through this process, we have improved first-pass success during subsequent MIL-STD-1540 qualification testing, reduced the number of problems once in production, and improved... performance. These results are vitally important to our profit bottom line, plus they improve customer and insurance provider confidence in our ability to introduce new technology successfully." [White Paper by Brian Kosinski & Dennis Cronin, Space Systems/Loral]

HawQ is a cost effective, portable solution that is available for purchase or lease to utilize in, or near, product development groups. The Portable Rapid Testing System provides an easy to use solution with Ethernet/WiFi options to allow for remote monitoring by development teams, and is a quiet, vibration-isolated system for virtually all development teams, R&D, Reliability, and University Labs.

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Professional Services

The strategic focus of Qualmark's Professional Services team is to reduce customer warranty costs that are attributable to product failures by deploying and supporting a Accelerated Reliability Testing program.

The team gathers information about the product from customer design experts and applies decades of experience and specialized knowledge in Accelerated Stress Testing to deliver solutions that will significantly reduce existing warranty costs and proactively mitigate warranty costs in new designs.

Contact Professional Services TODAY to request training for optimum HALT utilization. support@qualmark.com

Options & Accessories

- QDaq Data Acquisition
- Spectrum Analyzer
- PC with HawQ Manager Software
- HawQ Manager Software
- Basic Fixture Kit
- PCA Fixture Clamps
- O2 Sensor
- Dewar Kit
- Multiple Dewar Kit

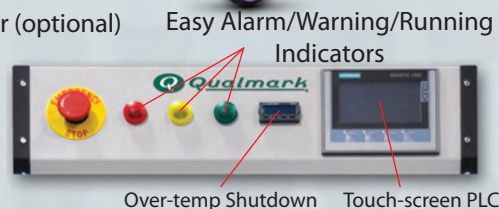
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Portable Rapid Testing System

New System Includes:

- Two (2) year warranty
- Operations & Maintenance manual
- Multi-pane Viewing Window
- LN₂ Cooling System (Cylinders provided separately)
- PC or Monitor (optional)
- System Manager Software (optional)
- System start-up by QM certified service engineer (optional)
- System and software orientation (optional)
- Thermal Alarms



Features and Benefits

Vibration Features	Table Top	16.0" x 12.0" (406 x 305mm)
	Table Top Hardware	12 threaded 3/8-16 holes on 4" centers; M10-1.5 thread optional
	Actuators	2 pneumatic, impulse-type, lubricant-free actuators
	Vibration	Six degree of freedom, random, Omni Axial™ broadband excitation
Thermal Features	Table Product Capacity	50 lb (23 kg)
	Vibration Range ¹	4-40 gRMS typical
	Heating System	Open-element nichrome type
	Cooling System	LN ₂ - insulated solenoid valve
	Temperature Range	+200°C to -100°C (+392°F to -148°F)
	Thermal Ramp Rate ²	Heating: 35°C/min average Cooling: 40°C/min average
Internal Features	Interior Dimension	19.0"w x 16.0"d x 10.5"h (483 x 406 x 267mm)
	Interior Volume	1.8 ft ³ (52 liters)
	Internal Construction	Stainless Steel
Exterior Features	Exterior Dimensions	32.7"w x 43.8"d x 56.1"h (832 x 1113 x 1425mm)
	External Construction	Painted steel construction
	Cover	1 hinged cover, opens approximately 100°
	Window	(1) 15" x 5" (381 x 127mm) multi-pane window in the door
	Access Ports	(2) 2" x 1.5" (51 mm x 38mm) rectangular notches, one on each side
	Sound	70dBA at 40 gRMS (at 1 meter)

1. Measured on bare table; maximum gRMS dependent on table configuration.

2. Measured -65°C to +85°C.

*Patent Pending

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