

QRS™-600 Vibration Screening System and Thermal Chamber for Small, Medium and Large Products

KEY FEATURES

- Up to 675lb/307kg load
- Up to 100 °C/minute
- 6 Vibration isolating/leveling feet
- Programmable blower speed
- External device control
- TCP/IP interface
- Sliding Rear Door
- Integrated door safety interlocks
- Vibration table fully extends
- Standard 3" and 4" ducting
- Runs on 320-575VAC 45-65Hz
- Optional chamber volume adjustment



The QRS-600 is optimized for Accelerated Testing Methods, including HALT & HASS with true closed-loop control and unexcelled accuracy and repeatability.

The largest system the QRS-600 series Omni-axial Quasi-Random Vibration and LN2 cooled thermal cycling chambers make Accelerated Stress Testing easy to implement.

OPTIMIZED VIBRATION TABLE

The proprietary 6 Degree of Freedom Quasi-Random Segmented Vibration Table has been optimized for today's testing environments. The table generates realistic 6 dof vibration motion assuring efficient precipitation of material and workmanship flaws such as bad intermittent connection and bonds and PCB opens and shorts.

ACCURATE, RELIABLE TESTING

Like other systems in the QRS series, the QRS-600 system uses pneumatic vibrators to drive vibration table to induce controlled repeatable omni-axial excitation within the most efficient frequency range. This system can easily be moved from production to R&D areas. For ease of operation, the QRS-600 system is controlled via the SSC-2000 PC-based controller. Additional data acquisition can be added for the most versatile system on the market. This system provides user-friendly tools for easy implementation.



SPECIFICATIONS:

Vibration Table	<ul style="list-style-type: none"> - Omni Axial Quasi-random vibration excites all axes of motion simultaneously - Six Degree of freedom, continuous broadband spectrum - Sixteen, Seventeen, or Twenty-five pneumatic impulse type hammers - Table Top Dimensions <ul style="list-style-type: none"> 44"D x 44"W (16 hammers) 44'D x 44'W (25 hammers) - Extends out to 46" (1168 mm) 	<ul style="list-style-type: none"> - Digital Flow Valve - Spectral Density is +/- 6db in 1/3 octave band - Maximum Payload <ul style="list-style-type: none"> 44x44 (16 hammers) – 600lbs (273Kgs) 44x44 (25 hammers) – 675lbs (307Kgs) - Typical Acceleration (gRms) <table border="1"> <thead> <tr> <th>Freq (Hz)</th> <th>16 Hammers</th> <th>25 Hammers</th> </tr> </thead> <tbody> <tr> <td>5-2000</td> <td>33</td> <td>44</td> </tr> <tr> <td>5-5000</td> <td>46</td> <td>61</td> </tr> </tbody> </table> 	Freq (Hz)	16 Hammers	25 Hammers	5-2000	33	44	5-5000	46	61
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Thermal System	<ul style="list-style-type: none"> - Temperature Range -100° to + 200° C - (Liquid Nitrogen Cooled) 	<ul style="list-style-type: none"> - Product rates of change up to 100°C/minute 									
System Safeties	<ul style="list-style-type: none"> - Emergency power-off circuitry - External Hi/Lo Temperature Limits - Blower rotation detection - Blower/Heating/Cooling/Purge door interlock 	<ul style="list-style-type: none"> - Interior Light - Redundant Hi Temperature Limit - Power phase detection - Vibration Door Interlocks 									
System Hardware	<ul style="list-style-type: none"> - Interior Dimensions: <ul style="list-style-type: none"> 48"H x 54"W x 48"D (44"H with auto ceiling) 1219H x 1372W x 1219D mm (1118 with auto ceiling) - Weight: <ul style="list-style-type: none"> 4,500lbs (2046Kg) - Electrical Requirements: <ul style="list-style-type: none"> 380 to 480VAC, 3Φ, 50 to 60 Hz - Port Holes: Two rectangular <ul style="list-style-type: none"> 6" x 7" (152 x 178 mm) 	<ul style="list-style-type: none"> - Exterior Dimensions: <ul style="list-style-type: none"> 94.5"H x 101.0"W x 56.0"D 2400H x 2565W x 1422D mm - Air Requirements <table border="1"> <thead> <tr> <th>Table</th> <th>SCFM</th> <th>LPM</th> </tr> </thead> <tbody> <tr> <td>44x44 (16 hammers)</td> <td>180</td> <td>5097</td> </tr> <tr> <td>44x44 (25 hammers)</td> <td>275</td> <td>9712</td> </tr> </tbody> </table> 	Table	SCFM	LPM	44x44 (16 hammers)	180	5097	44x44 (25 hammers)	275	9712
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Controller	<ul style="list-style-type: none"> - SSC-2000 PC-based Software - Industrial or Desktop or Tower Computer - Supports 14 control and/or product thermocouples 	<ul style="list-style-type: none"> - Windows® NT/2000/XP - Supports 1-24 control and/or product response accelerometers 									
Controller Safeties	<ul style="list-style-type: none"> - Hierarchical key lock - Internal Hi/Lo temperature limits - Blower rotation detection - Blower/Heating/Cooling/Purge door interlock 	<ul style="list-style-type: none"> - Vibration set point and channel limit protection - Shorted/open thermocouple protection - Power phase detection 									
Included	<ul style="list-style-type: none"> - System Installation & Training - Data-logging - 6 BNC plugs and control accelerometers - 6 BNC plugs for additional accelerometers - Table blanket 	<ul style="list-style-type: none"> - 2 Operations and Maintenance Manuals - RS-232 and TCP/IP Interface - Type T Control and 11 Product thermocouples with plugs for total of 12 thermocouples - Airflow Ducting kit 									
Options	<ul style="list-style-type: none"> - Product Response Accelerometer Kit - SBF-100 PCB Fixture Kit - Custom table insert patterns - Metric Inserts - Remote control console - 12 BNC plugs for additional control and/or response accelerometers 	<ul style="list-style-type: none"> - Product Response Thermocouple Kit - FSK-100 Fixture Kit - Porthole size, number, location - Rear doors - Paint color - Adjustable chamber volume (auto ceiling) - Port hole number, size, and location 									