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For Immediate Release

Thermotron Announces Patented HALT/HASS Vibration Technology

100+ Grms Acceleration, I,000G Shock, Individual Impactor Control, Amplitude and Frequency Regulation, Dual-Strike Impactors, Fatigue-Based Accelerated Testing

Holland, Michigan - Thermotron is pleased to announce exciting news sure to impact the HALT & HASS industry – game-changing news that will shake the foundation of repetitive shock vibration technology. New, advanced repetitive shock vibration systems from Thermotron featuring patented Individual Impactor Control and Monitoring provide a more concise and effective accelerated reliability tool.

Thermotron brings advanced control capabilities to the world of repetitive shock vibration to break down industry wide barriers that were based upon simple mechanical principles. Our history of developing sophisticated control solutions with intuitive user interfaces helped us pioneer groundbreaking advancements in the field of HALT & HASS vibration. We have complete and independent control over the fundamental parameters of repetitive shock vibration. The development of clever algorithms allows the RSL SCI to efficiently deliver random energy through the table and to the product.

Impactors can be controlled discretely or in any combination. Impactors can be accurately synchronized to deliver bursts of high g shock events or randomly unsynchronized to provide consistent energy covering a wide frequency range. Acceleration levels exceeding 100 Grms are now attainable. Input vibration amplitudes exceeding 1,000 Gpk provide dynamic stress capabilities never before capable in repetitive shock machines. High G shock events can be superimposed over background RS random events for application specific stress testing.

The patented SCI impactor is capable of varying both the amplitude and frequency of the strike. It imparts far more fatigue damage at lower Grms levels than other tables. The improved low frequency performance forces significant table displacement never before seen. The RSL SCI table can excite more failures, more quickly, with lower Grms levels, using less compressed air in the process.

Dual strike impactors hit on the upstroke and the downstroke, improving Peak Probability Stress Distribution with an increased number of high force impact occurrences and a more evenly distributed force profile. Significant peaks out to 10 sigma and beyond on both ends of the bell curve increase fatigue resulting in less time to failure. By imparting force in the downward direction, the SCI impactor improves consistent multi-axis stress components in all three axes.

The SCI impactor is capable of cycling at frequencies far lower than the industry has ever been able achieve. For many large, mechanical components, energy in the low frequency range, below 200 hz, is a key issue. Forced random impacts eliminate the spiky harmonic effect of repetitive shock hammers operating from a single compressed air source.

Other benefits of this innovative, new table include extremely consistent axis-to-axis uniformity, equivalent energy in each axis, and quadrant-to-quadrant table uniformity. In addition, The RSL SCI table is able to maintain tight tolerance over time and can be configured to compensate for impactor wear.

About Thermotron

For over 50 years, Thermotron has been developing and refining environmental chamber solutions that set industry standards. Our broad range of products covers a multitude of environmental stresses that are capable of simulating single or multiple environmental use conditions in a variety of testing programs. Our work is defined by high quality, high reliability products and a direct, dedicated service and support network.

For more information on Thermotron's environmental test and instrumentation solutions, please contact us at:

291 Kollen Park Drive
Holland, Michigan 49423 USA
(616) 393-4580 – phone
(616) 392-5643 – fax
www.thermotron.com
info@thermotron.com
Contact: Tracy Mak