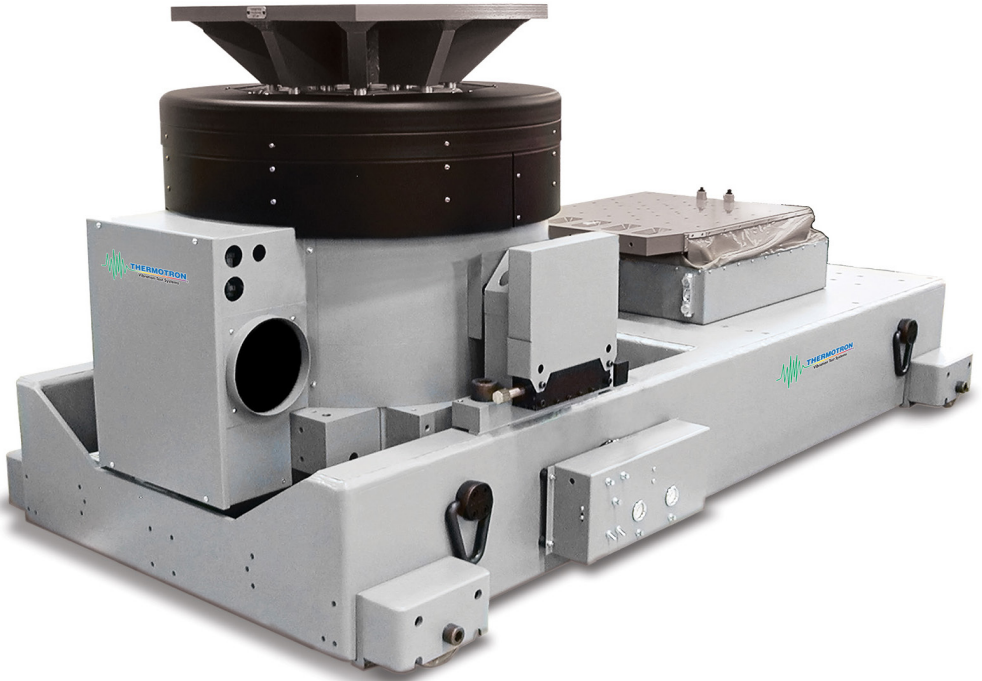




DSX-SERIES

Electrodynamic Vibration Test Equipment



THE DRIVING FORCE

A global vibration manufacturer for more than 40 years, Thermotron specializes in high-performance vibration test system integration. Our electrodynamic shakers feature superior acceleration, velocity, force, and shock performance. With a variety of customizable features, Thermotron's shakers provide the durability and versatility to meet your unique testing needs.

DSX-SERIES

Thermotron is a turnkey manufacturer of Vibration Test Systems, including the shaker, amplifier, control system, sliptables, head expanders, and fixtures. From running random and sine to shock, sine-on-random, and random-on-random tests, Thermotron's versatile performance will meet your specific testing needs.

All vibration and combined components are designed and created in-house, including the chamber, shaker, amplifier, and all of the integrated control systems and software, as well as sliptables, head expanders, and fixturing.



Small Force

DSX-2250

- 2,250 force pound (10 kN) sine and random capabilities
- 12" (30.5 cm) diameter armature
- 500 pound (227 kg) payload support
- 90 ips (2.28 mps) continuous velocity
- 100g bare table acceleration*



Medium Force

DSX-4000

- 16" (40.6 cm) or 24" (61 cm) diameter armature
- 1,000 pound (454 kg) payload support (1,500 pound option)
- 4,000 force pound (178 kN) sine and random capabilities
- 70 ips (1.78 mps) continuous velocity
- 60g bare table acceleration (with 16" armature)*

DSX-6650

- 6,650 force pound (29.6 kN) sine and random capabilities
- 90 ips (2.28 mps) continuous velocity
- 100g bare table acceleration (with 16" armature)*

DSX-8000

- 8,000 force pound (35.6 kN) sine and random capabilities
- 100 ips (2.54 mps) continuous velocity
- 120g bare table acceleration (with 16" armature)*

**Bare table does not include standoffs or thermal barrier.*



Large Force

DSX-12000

- 12,000 force pound (53.4 kN) sine and random capabilities
- 16" (40.6 cm) or 24" (61 cm) diameter armature
- 1,000 pound (454 kg) payload support (1,500 pound option)
- 90 ips (2.28 mps) continuous velocity
- 120g bare table acceleration (with 16" armature)*

DSX-20000

- 20,000 force pound (89 kN) sine and random capabilities
- 16" (40.6 cm) diameter armature
- 1,000 pound (454 kg) payload support (1,500 & 2,000 pound options)
- 80 ips (2.03 mps) continuous velocity
- 120g bare table acceleration (with 16" armature)*

Custom & Combined Solutions

Thermotron's electrodynamic shakers are fully compatible with environmental test chambers for combined environment testing. Interfacing features include a thermal isolation system and casters, as well as integrated instrumentation between the WinVCS 3200 and the chamber's 8800 Controller system.

Thermotron also specializes in creating custom shakers to meet specific testing needs. Whether you have a special test specification or a unique product, we can help find a complete solution.

A DSX-8000 purchased by an automotive subcontractor. This dual sliptables design provided a versatile and cost-effective piece for the company.



FEATURES

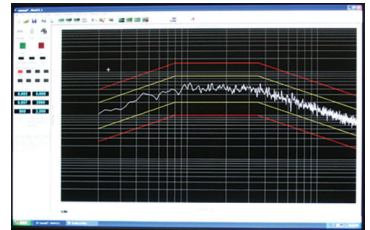
Amplifier	Efficiently drives the shaker to full output over a specified frequency range. Uses IGBT technology to combine the fast switching of a MOSFET with high current capability and low power dissipation of a bipolar transistor. Also safely shuts down the system before components fail.
Armature	Lightweight and durable for maximized acceleration levels. Directs uniform forces through a single structure. Mounting surface minimizes thermal transfer to support long-term reliability testing. Custom wound armatures are available for specific performance.
Optional Features	
Additional Accelerometers	Customize the number of accelerometers for your vibration test.
Fixturing	Designed specifically for your product or products. Mounts easily to improve productivity.
Head Expander	Expand the mounting area for attaching fixtures and products.
Electrical Power Tow	Used to move the shaker; ideal for combined systems.
Sliptable	Rotate the shaker 90° to allow horizontal-axis vibration.
Armature Standoffs	Provides thermal isolation.
Remote Blower Quiet Package	Houses whole cooling blower to minimize noise level.

WinVCS Controller

Thermotron's WinVCS II Controller has the familiar Windows® look and feel, but it's designed and made specifically by Thermotron for use with an electrodynamic vibration shaker and vibration test system. It offers vibration control and analysis for accurate sine, random, shock, resonant search and dwell, random-on-random, sine-on-random, and sine-on capabilities. Real Data Acquisition and Playback (RDAP) allows actual vibration data from the field to be recorded. Reduce training time and make set up and report generation quick and painless.

The WinVCS II has menu-driven software and color graphics. A library of pre-programmed vibration profiles conforming to many preset test specifications simplifies set-up and operation. The software allows for up to four displays to be viewed simultaneously and also is capable of automatically running test scheduling and profile sequencing, including switching vibration control modes from sine to shock to random.

The WinVCS also integrates with the 8800 Controller for combined environment testing with an AGREE Chamber. Vibration control information is displayed on one half of the screen and chamber control information on the other for convenient viewing of test progress and other information.



Features

- User selectable frequency range up to 3,000 Hz
- User selectable resolution up 3,200 lines
- Scalable tolerance and abort limits
- 24" widescreen monitor display for standard vibration testing
- 29" widescreen monitor display for combined testing
- User-defined temperature and electrodynamic vibration profiles
- Multiple accelerometers and thermocouple controls
- Ethernet-compatible and web-enabled

Service & Support

Our worldwide field service engineers and sales representatives provide superior service before and after the sale. An annual service seminar gives customers hands-on experience with shaker and chamber troubleshooting and repair.

History

For more than 40 years of vibration equipment, we have held a deep-rooted commitment to customer service and innovative thinking.

Thermotron has been at the forefront of new technologies, including interfacing a low-profile electrodynamic shaker with environmental chambers; switching (Class D) amplifiers, making our shakers more efficient and reliable than previous linear amplifiers; and using microprocessor-based dynamic centering on vibration systems.

Experience

Thermotron develops and refines vibration test systems that set industry standards. Our equipment meets many of the most widely used vibration test specifications, including those from SAE, MIL-STD, IEC, ISTA, JIG, EIA, ISO, NAVMAT, JIS, Telcordia, and ASTM. Our equipment is able to perform transportation testing, stress screening, dynamic simulation, accelerated stress testing, and seismic vibration.

We proudly meet international certification requirements such as UL, CE, CSA, and VDE, including provisions for shock and vibration resistance.

