PROVEN VIBRATION
TEST SYSTEMS

World Class Supplier of Affordable Vibration Test Equipment

www.sentekdynamics.com

SENTEK
DYNAMICS

About Sentek Dynamics

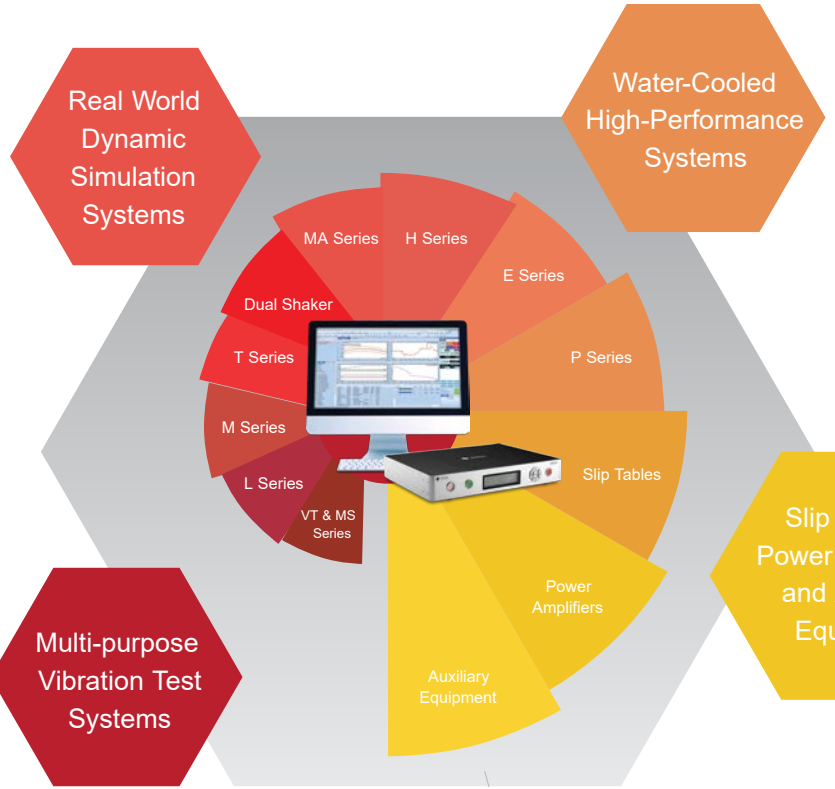
Sentek Dynamics is focused on turn-key solutions for vibration and environmental testing. With headquarters in Santa Clara, CA and a product demonstration, service and assembly facility in the Charlotte, NC metroplex, Sentek Dynamics offers customers coast-to-coast locations for superior service and rapid response. In collaboration with its sister company, Crystal Instruments, Sentek Dynamics develops and markets a wide range of vibration test equipment, environmental test chambers, and instruments for control, data recording and analysis. With this comprehensive product line, Sentek Dynamics can offer turn-key vibration and environmental testing solutions for today's demanding test requirements.

Sentek Dynamics is currently in the process of establishing a local team in North Carolina to produce systems that are tested and assembled in the USA from globally sourced parts. The establishment of our local North Carolina facility furthers our commitment to providing high quality testing solutions.

Sentek Dynamics' products include a wide range of standard and optional features to meet specific test requirements. Vibration testing systems include high-efficiency air-cooled power amplifiers, slip tables in low and high-pressure designs when affordability or high resistance to overturning moments is the priority, long-stroke options to meet transportation test requirements, air-cooled systems with remote intake and exhaust hose connections for use in labs with controlled environments, simultaneous 3-axis testing systems for reproducing real-world vibration environments in the lab, high-performance shakers with 1470 m/s² (150 g) acceleration, motorized gearboxes for shaker rotation, and a variety of isolation systems to avoid the need for a seismic floor. Environmental test systems include chambers with temperature, temperature and humidity, and combined temperature, humidity and vibration.

The Sentek Dynamics' Team consists of a talented group of engineers, technicians and support personnel with an extensive background in the vibration and environmental testing industry. The design staff includes skilled mechanical and electrical engineers that can rapidly integrate advanced technologies to meet unique customer requirements. This enables Sentek Dynamics to consistently deliver a wide-variety of standard and custom-engineered products that exceed customer expectations in terms of quality and performance.

Delivery and quality initiatives form an integral part of the Sentek Dynamics culture. This enables Sentek Dynamics to consistently deliver a wide-variety of standard and custom-engineered products that exceed the specifications of other vibration and environmental test system manufacturers.



Multi-Purpose Test Systems*

** Systems tested & assembled in the USA coming soon. Contact Sentek Dynamics for availability.*

Low and Medium-Force Shakers

Sentek Dynamics' L Series and M Series are air-cooled vibration testing systems ideally suited to testing small to medium sized components and assemblies and are cost-effective solutions to today's demanding test requirements. They are available in vertical only and mono-base configurations (integral slip table). Each system includes the shaker, amplifier, blower and interconnecting cables and hoses.

- Up to 73.5 kN (16,520 lbf) Sine force capability
- Static payload capability up to 1000 kg (2205 lb)
- Working frequency up to 5000 Hz
- Pneumatic load support
- Air-isolated trunnion

Available options:

- Air-isolation feet, pads or mounts
- Automatic armature centering in static and dynamic modes
- Motorized gearbox for shaker rotation - standard on systems at or above 49 kN (11,010 lbf)

New High-force, Air-cooled 73.5 kN (16,520 lbf) Vibration Testing System

Sentek Dynamics' new M7544A all air-cooled vibration testing system offers a high-force test capability with reliable, low-maintenance air-cooling. It is ideally suited to testing large aerospace, automotive and military components. Numerous options are available, including automatic armature centering in static and dynamic modes, and a 76 mm (3 inch) long-stroke option to meet today's low-frequency, long-stroke transportation testing needs.

Tables,
Amplifiers
Auxiliary
uipment

L Series - Low-Force Shakers

Air-cooled 0.98 - 9.8 kN (220 - 2200 lbf)

System Performance	L0111A	L0211A	L0315M	L0620M	L1024M
Sine Force Peak kN (lbf)	0.98 (220)	1.96 (440)	2.94 (660)	5.88 (1320)	9.8 (2200)
Random Force rms kN (lbf)	0.98 (220)	1.96 (440)	2.94 (660)	5.88 (1320)	9.8 (2200)
Shock Force (6 ms) kN (lbf)	1.96 (440)	3.92 (880)	5.88 (1320)	11.76 (2640)	19.6 (4400)
Frequency Range Hz	5-4500	5-4500	5-4500	5-5000	5-3400
Continuous Displacement mm (in)	25 (1.0)	25 (1.0)	40 (1.6)	51 (2.0)	51 (2.0)
Max Velocity m/s (in/s)	2 (78.7)	2 (78.7)	2 (78.7)	2 (78.7)	2 (78.7)
Max Acceleration Sine Peak m/s^2 (g)	490 (50)	980 (100)	980 (100)	980 (100)	980 (100)
Armature Diameter mm (in)	110 (4.3)	110 (4.3)	150 (5.9)	200 (7.9)	240 (9.4)
Effective Armature Mass kg (lb)	2 (4.4)	2 (4.4)	3 (6.6)	6 (13.2)	10 (22.0)
Max Static Payload kg (lb)	70 (154)	70 (154)	120 (265)	200 (441)	200 (441)

M Series - Medium-Force Shakers

Air-cooled 14.7 - 73.5 kN (3300 - 16,520 lbf)

System Performance	M1528A	M2232A	M3240A*	M4040A	M5044A*	M6044A	M6544A	M7544A
Sine Force Peak kN (lbf)	14.7 (3300)	21.56 (4840)	31.36 (7050)	39.2 (8810)	49 (11,010)	58.8 (13,210)	63.7 (14,320)	73.5 (16,520)
Random Force rms kN (lbf)	14.7 (3300)	21.56 (4840)	31.36 (7050)	39.2 (8810)	49 (11,010)	58.8 (13,210)	63.7 (14,320)	73.5 (16,520)
Shock Force (6 ms) kN (lbf)	29.4 (6600)	43.12 (9680)	62.72 (14,100)	78.4 (17,620)	98 (22,020)	117.6 (26,420)	127.4 (28,640)	147 (33,040)
Frequency Range Hz	5-3000	5-3000	5-2500	5-2200	5-2500	5-2500	5-2500	5-2400
Continuous Displacement mm (in)	51 (2.0)	51 (2.0)	51 (2.0)	51 (2.0)	51 (2.0)	51 (2.0)	51 (2.0)	51 (2.0)
Max Velocity m/s (in/s)	2 (78.7)	2 (78.7)	2 (78.7)	2 (78.7)	2 (78.7)	2 (78.7)	2 (78.7)	2 (78.7)
Max Acceleration Sine Peak m/s^2 (g)	784 (80)	980 (100)	980 (100)	980 (100)	980 (100)	980 (100)	980 (100)	980 (100)
Armature Diameter mm (in)	280 (11.0)	320 (12.6)	400 (15.7)	400 (15.7)	445 (17.5)	445 (17.5)	445 (17.5)	445 (17.5)
Effective Armature Mass kg (lb)	18 (39.7)	22 (48.5)	32 (70.5)	40 (88.2)	49 (108)	49 (108)	60 (132)	75 (165)
Max Static Payload kg (lb)	300 (661)	300 (661)	500 (1102)	500 (1102)	1000 (2205)	1000 (2205)	1000 (2205)	1000 (2205)

**Available with larger 640 mm (25.2 inch) diameter armature for additional mounting space*

Real World Dynamic Simulation Systems*

** Systems tested & assembled in the USA coming soon. Contact Sentek Dynamics for availability.*

Long-Stroke Shakers

Transportation and package test requirements require low-frequency and large displacement performance. Sentek Dynamics' long-stroke T Series vibration testing systems are designed for test requirements normally performed by servo-hydraulic shakers. Compared to a servo-hydraulic shaker where the maximum test frequency is limited to approximately 450 Hz, Sentek Dynamics' T Series is capable of up to 3000 Hz.

- Up to 52.9 kN (11,890 lbf) Sine force capability
- Static payload capability up to 800 kg (1764 lb)
- Working frequency up to 3000 Hz
- Displacements up to 100 mm (3.9 in)
- Pneumatic load support
- Air-isolated trunnion

Available options:

- Air-isolation feet, pads, or mounts
- Automatic armature centering in static and dynamic modes
- Low and high-pressure slip tables for horizontal testing
- Motorized gearbox for shaker rotation

Simultaneous 3-Axis Shakers

Reproduction of a real-world environment in many cases requires a simultaneous 3-axis (X, Y and Z axes) vibration testing system to reproduce the failure mode which the single-axis test cannot.

The Sentek Dynamics' MA Series is the affordable solution to MIL-STD-810H, Method 527 requirements for multi-exciter (axis) testing.

- Up to 58.8 kN (13,210 lbf) Sine force capability per axis
- Working platform size up to 1200 x 1200 mm
- Three frequency ranges: High (H), Medium (M), and Low (L)

T Series - Long-Stroke Shakers

Air-cooled 29.4 - 52.9 kN (6600 - 11,890 lbf)

System Performance	T3034A	T4044M	T5444A
Sine Force Peak kN (lbf)	29.4 (6600)	39.2 (8810)	52.9 (11,890)
Random Force rms kN (lbf)	20.58 (4620)	39.2 (8810)	42.32 (9510)
Shock Force (6 ms) kN (lbf)	58.8 (13,210)	78.4 (17,620)	105.8 (23,780)
Frequency Range Hz	5-3000	5-2200	5-2300
Continuous Displacement mm (in)	100 (3.9)	100 (3.9)	100 (3.9)
Max Velocity m/s (in/s)	2.4 (94.4)	2.4 (94.4)	2.4 (94.4)
Max Acceleration Sine Peak m/s^2 (g)	784 (80)	784 (80)	784 (80)
Armature Diameter mm (in)	320 (12.6)	445 (17.5)	445 (17.5)
Effective Armature Mass kg (lb)	37.5 (82.7)	50 (110)	68 (150)
Max Static Payload kg (lb)	500 (1102)	500 (1102)	800 (1764)

MA Series - Simultaneous 3-Axis Shakers

Air-cooled 9.8 - 58.8 kN (2200 - 13,210 lbf) Popular high-frequency (H) models shown below.

System Performance	MA-1000-4H	MA-2000-4H	MA-3000-4H	MA-5000-5H	MA-6000-5H
Sine Force Peak kN (lbf)	9.8 (2200)	19.6 (4400)	29.4 (6600)	49 (11,010)	58.8 (13,210)
Random Force rms kN (lbf)	6.86 (1540)	13.7 (3070)	20.5 (4600)	34.3 (7710)	43.1 (9680)
Frequency Range Hz	5-2000	5-2000	5-2000	5-2000	5-2000
Max Velocity m/s (in/s)	1 (39.4)	1.2 (47.2)	1.1 (43.3)	1.5 (59.1)	1.5 (59.1)
Max Acceleration Sine Peak m/s^2 (g)	78.4 (8)	78.4 (8)	78.4 (8)	78.4 (8)	78.4 (8)
Platform Size mm (in)	400 (15.7)	400 (15.7)	400 (15.7)	500 (19.7)	500 (19.7)

Water-Cooled Vibration Test Systems*

** Systems tested & assembled in the USA coming soon. Contact Sentek Dynamics for availability.*

High and Extra High-Force Shakers

Sentek Dynamics' H Series and E Series are water-cooled vibration testing systems designed for high-force, long-duration development and production testing of large aerospace, automotive and industrial components and assemblies. Like Sentek Dynamics' air-cooled systems they provide cost-effective solutions to today's demanding test requirements. They are available in vertical only and mono-base configurations (integral slip table). Each system includes the shaker, amplifier, cooling unit and interconnecting cables and hoses.

- Up to 392 kN (88,120 lbf) Sine force capability
- Static payload capability up to 6000 kg (13,228 lb)
- Working frequency up to 2500 Hz
- Pneumatic load support
- Air-isolated trunnion
- Motorized gearbox for shaker rotation standard

Available options:

- Air-isolation pads or mounts
- Automatic armature centering in static and dynamic modes
- Extended stroke available on most models
- Low and high-pressure slip tables for horizontal testing

H Series - High-Force Water-Cooled Shakers

Water-cooled 63.7 - 156.8 kN (14,320 - 35,250 lbf)

System Performance	H6544A	H8044A	H10056A	H12056A	H16064A
Sine Force Peak kN (lbf)	63.7 (14,320)	78.4 (17,620)	98 (22,030)	117.6 (26,430)	156.8 (35,250)
Random Force rms kN (lbf)	63.7 (14,320)	78.4 (17,620)	98 (22,030)	117.6 (26,430)	156.8 (35,250)
Shock Force (6 ms) kN (lbf)	127.4 (28,640)	156.8 (35,250)	196 (44,060)	235.2 (52,870)	313.6 (70,500)
Frequency Range Hz	5-2500	5-2500	5-2400	5-2400	5-2200
Continuous Displacement mm (in)	51 (2.0)	51 (2.0)	51 (2.0)	51 (2.0)	51 (2.0)
Max Velocity m/s (in/s)	2 (78.7)	2 (78.7)	2 (78.7)	2 (78.7)	2 (78.7)
Max Acceleration Sine Peak m/s^2 (g)	980 (100)	980 (100)	980 (100)	980 (100)	980 (100)
Armature Diameter mm (in)	445 (17.5)	445 (17.5)	560 (22.0)	560 (22.0)	640 (25.2)
Effective Armature Mass kg (lb)	60 (132)	80 (176)	100 (220)	100 (220)	160 (353)
Max Static Payload kg (lb)	1000 (2205)	1000 (2205)	1500 (3307)	1500 (3307)	2000 (4409)

E Series - Extra High-Force Water-Cooled Shakers

Water-cooled 196 - 392 kN (44,060 - 88,120 lbf)

System Performance	E20064A	E30076A	E40086A
Sine Force Peak kN (lbf)	196 (44,060)	294 (66,090)	392 (88,120)
Random Force rms kN (lbf)	137 (30,790)	205 (46,080)	274 (61,590)
Shock Force (6 ms) kN (lbf)	392 (88,120)	588 (132,180)	784 (176,250)
Frequency Range Hz	5-2200	5-1900	5-1700
Continuous Displacement mm (in)	51 (2.0)	51 (2.0)	51 (2.0)
Max Velocity m/s (in/s)	2 (78.7)	1.8 (70.8)	1.8 (70.8)
Max Acceleration Sine Peak m/s^2 (g)	980 (100)	980 (100)	980 (100)
Armature Diameter mm (in)	640 (25.2)	760 (29.9)	860 (33.9)
Effective Armature Mass kg (lb)	160 (353)	230 (507)	350 (772)
Max Static Payload kg (lb)	2000 (4409)	3200 (7055)	6000 (13,228)

TURN-KEY VIBRATION TEST SOLUTIONS

with Sentek Dynamics shakers and Crystal Instruments vibration control system . . .

delivering what test engineers demand.

Sentek Dynamics has the unique ability to provide turn-key vibration testing solutions. Along with its sister company Crystal Instruments, Sentek Dynamics can offer a vibration test system complete with shaker and Spider vibration controller. This simplifies system purchasing and provides a single source for training and system support issues.

The SPIDER family represents the fourth generation of vibration controllers - fully networked, built on Ethernet with IEEE 1588 time synchronization.

Developed by our sister company, Crystal Instruments, the Spider family of vibration controllers are highly modular, distributed and scalable vibration control systems. The Spider family represents the fourth generation of vibration control systems because it implements advanced technology not seen in the previous generations.

DSP CENTRALIZED ARCHITECTURE

With DSP centralized hardware architecture, the real-time measurement and control processes are all run on the front-end hardware; users can utilize all of the capabilities of the host computer for other tasks. This multi-tasking concept guarantees powerful and time efficient vibration testing, even with time critical tests. More importantly, it provides a unique and important safety feature: any computer or network failure will not affect the vibration control.

LATEST HARDWARE DESIGN

The Spider front-ends have voltage, IEPE and charge inputs which are ideal for shock, vibration, and acoustic measurement, strain or general purpose voltage measurement. The internal flash memory stores test configuration data for controlling up to hundreds of channels simultaneously and stores real-time analysis data. Multiple output channels provide various signal output waveforms that are synchronized with the input sampling rate. Ten monitoring connections on each unit are used to read analog input and output signals. There is a built-in isolated digital I/O to interface with other hardware. Our scalable architecture allows users to employ as many as 512 input channels for the utmost spatial resolution. Sampling to 102.4 kHz provides excellent time resolution while spectra with up to 12,800 lines may be controlled. Data is stored into 4 GB of internal flash memory. Increased storage space is possible with the addition of a 250 GB external unit.

SIMPLE NETWORK CONNECTION

Ethernet connectivity allows Spiders to be located far from the host PC. This distributed structure greatly reduces noise and electrical interference in the system. A single PC can monitor and control multiple controllers over a network. Since the control processing and data recording are executed locally inside the controller, the network connection does not affect control reliability. With wireless network routers, a PC connects easily to the Spiders remotely via Wi-Fi.

TIME SYNCHRONIZATION BETWEEN MULTIPLE MODULES

The Spider is built on IEEE 1588 Precision Time Protocol (PTP) time synchronization technology. This technology allows remote input modules to be connected solely by Ethernet while still providing sampling and triggering synchronizations with an accuracy of 50 ns. All input channels across the system are amplitude matched within 0.1 dB and phase matched within 1° over a 20 kHz bandwidth. With this unique technology and high-speed Ethernet data transfer, the distributed components on the network truly act as one integrated system. The cable length can be up to 100 meters when using CAT6 Ethernet cables.

THE SPIDER FAMILY SOFTWARE - Individual Modules

Random Vibration Control
Random Vibration Control provides precise multi-channel control in real time. The device under test is subjected to true random noise with a precisely shaped spectrum with either Gaussian or non-Gaussian amplitude statistics.

Sine on Random Control
Up to 12 independently sweeping controlled sine tones may be added to the broadband random signal. Each sine tone has its own sweeping schedule and range. Tones can be turned on and off manually or by a predefined schedule.

Random on Random Control
Up to 12 independent (stationary or sweeping) random narrow-band signals may be superimposed on the broadband random signal. Each narrow-band has its own sweeping schedule and range. They can be turned on and off by a predefined schedule or manually.

Swept Sine Control
Swept Sine Vibration Control provides precise multi-channel control in real time. It provides a spectrally pure undistorted sine wave and a control dynamic range of up to 100 dB. As many as 512 channels can be enabled for Control, Notching, Monitoring and time-data recording.

Multi-Sine Control
Multi-Sine control enables multiple sine tones sweeping simultaneously and ensures that multiple resonant frequencies of the structure can be excited. With multiple sine tone excitation, the required time duration of sine testing can be reduced significantly.

Total Harmonic Distortion (THD) Measurement for Sine
This option adds the ability of computing Total Harmonic Distortion (THD) of the control and Input signals. THD plots can be generated while a drive signal either steps through multiple discrete frequencies or a swept sine tone is within a predefined range.

Classical Shock Control
Classical Shock Control provides precise, real-time, multi-channel control and analysis of a transient motion in the time domain. Classical pulse shapes include half-sine, haversine, terminal-peak sawtooth, initial-peak saw tooth, triangle, rectangle, and trapezoid. Applicable Test Standards include MIL-STD-810F, MIL-STD-202F, ISO 9568 and IEC 60068 (plus user-defined specifications).

Transient Time History Control (TTH)
Targeting seismic simulation applications, TTH controls shaker motion to match any user defined transient waveform. Time waveforms can be imported to EDM in various formats. Scaling, editing, digital re-sampling, high-pass or low-pass filtering and compensation will tailor the waveform so that it may be duplicated on a particular shaker.

Shock Response Spectrum (SRS) Synthesis and Control
The SRS synthesis and control package provides the means to control the measured SRS of the DUT to match a target SRS, the Required Response Spectrum (RRS). The necessary drive time history is synthesized from damped-sine or sine-beat wavelets. Damped Sine Parameters include frequency, amplitude, critical damping factor, and delay. Waveforms may be automatically synthesized from a user-specified SRS reference profile.

Time Waveform Replication
Time Waveform Replication (TWR) provides precise, real-time, multi-channel control for long duration waveform duplication. TWR includes the Waveform Editor, a flexible importing and editing tools for long waveform signals. The Recording option records time stream data at the full sample rate on all input channels.

Individual Software Modules include:
- **Waveform Editor**
- **Multi-Shaker Control for Sine or Random**
- **Non-Acceleration Control**
- **Real-Time Sine Reduction**
- **Sensor Calibration**
- **Front-end Calibration Tool (FECT)**
- **Data Transfer Tool**
- **Dynamic Signal Analysis & Post Processing Function**

High Performance Vibration Test System*

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P Series
High-Performance Shakers

Air and Water-cooled 34.3 - 78.4 kN (7710 - 17,620 lbf)

System Performance	P3532M	P6044A	P8044A
Sine Force Peak kN (lbf)	34.3 (7710)	58.8 (13,210)	78.4 (17,620)
Random Force rms kN (lbf)	24 (5390)	39.2 (8810)	78.4 (17,620)
Shock Force (6 ms) kN (lbf)	68.6 (15,420)	117.6 (26,430)	156.8 (35,250)
Frequency Range Hz	2-3000	2-2800	2-2500
Continuous Displacement mm (in)	51 (2.0)	51 (2.0)	51 (2.0)
Max Velocity m/s (in/s)	2 (78.7)	2 (78.7)	2 (78.7)
Max Acceleration Sine Peak m/s^2 (g)	1470 (150)	1470 (150)	1470 (150)
Armature Diameter mm (in)	320 (12.6)	445 (17.5)	445 (17.5)
Effective Armature Mass kg (lb)	23.3 (51.4)	40 (88.2)	53 (116.8)
Max Static Payload kg (lb)	500 (1102)	600 (1323)	800 (1764)

High-Performance Shakers

With a max acceleration of 150 g Sine and a range of 34.3 to 78.4 kN (7710 to 17,620 lbf) Sine force peaks, the Sentek Dynamics' P Series vibration testing systems offer exceptional performance at an affordable price. The P Series is available in vertical and horizontal operation with an optional slip table.

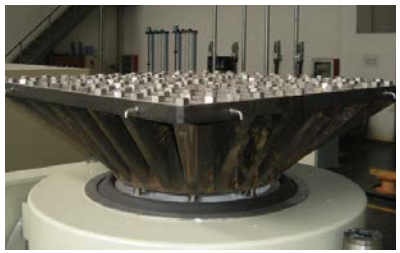
- 78.4 kN (17,620 lbf) Sine force capability
- Max acceleration 150 g Sine peak
- Max static payload capability 800 kg (1764 lb)
- Minimum frequency of 2 Hz with a working frequency up to 3000 Hz
- Pneumatic load support
- Air-isolated trunnion

Available options:

- Air-isolation feet, pads, or mounts
- Automatic armature centering in static and dynamic modes
- Low and high-pressure slip tables for horizontal testing
- Motorized gearbox for shaker rotation

Auxiliary Equipment and Accessories
Head Expanders and Fixtures

Sentek Dynamics provides a wide-variety of standard head expanders with and without guidance or load support and guidance. Cube, L-type and T-type fixtures for testing multiple components are available to accommodate multi-axis testing without a slip table.



Mono-base Slip Tables*

** Systems tested & assembled in the USA coming soon. Contact Sentek Dynamics for availability.*

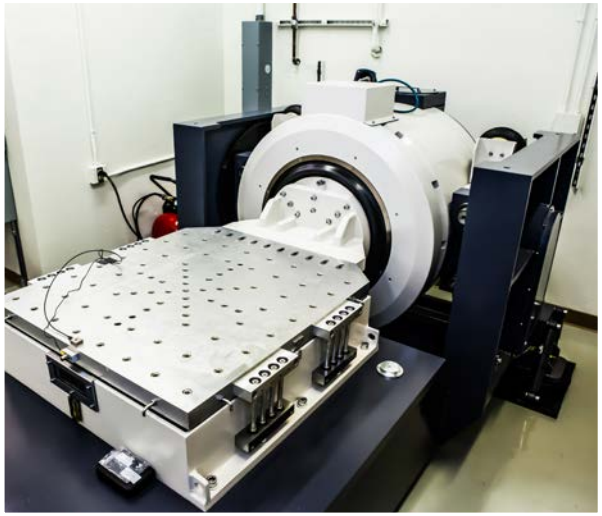
With today's demanding test requirements there is an increasing need for slip tables to facilitate testing in a horizontal position. Sentek Dynamics offers mono-base slip tables in low and high-pressure designs in standard sizes ranging from 300 mm (12 inches) to 2500 mm (98 inches). Custom sizes are also available including expandable slip tables when a larger mounting area is occasionally required.

In a mono-base configuration the shaker and slip table share a structural steel body that enables rapid conversion between vertical and horizontal positions, and the accurate alignment of the shaker relative to the slip table when rotated to the horizontal position.

LST Series

Sentek Dynamics' low-pressure LST Series slip tables provide an affordable solution to horizontal testing requirements. LST Series slip tables utilize V-groove bearings to guide the magnesium slip plate over an oil-film on a precision ground granite slab. Oil from an integral hydraulic power supply is dispersed through ports in the granite slab under the magnesium slip plate.

- Affordable solution for horizontal testing
- Integral hydraulic pump, reservoir and filter



HST Series

High-pressure slip tables utilizing T-slot bearings designed for testing heavy payloads with a high center of gravity. The HST Series provides the highest resistance to pitch, roll and yaw over-turning moments.

- Optimum solution for testing heavy payloads with a high center of gravity
- Separate hydraulic power supply and oil cooler
- More reliable than hydrostatic journal bearings
- Lower maintenance costs over an extended period of time

LST and HST Series - Mono-base and Slip Tables

Series Designation	Max Payload kg (lb)	Slip Plate Thickness mm (in)	Slip Plate Mass kg (lb)	No. of Bearings	Total Bearing Mass kg (lb)	Total Slip Table Mass kg (lb)	Over-Turning Moments		
							Pitch kN-m (lbf-ft)	Roll kN-m (lbf-ft)	Yaw kN-m (lbf-ft)
LST300A	100 (220)	25 (1.0)	7 (15.4)	1	2 (4.4)	9 (19.8)	0.5 (369)	0.5 (369)	0.2 (148)
LST400M	150 (331)	25 (1.0)	8 (17.6)	1	2 (4.4)	10 (22.0)	0.875 (645)	0.875 (645)	0.2 (148)
LST500MT	150 (331)	25 (1.0)	10 (22.0)	2	4 (8.8)	14 (30.9)	1.538 (1134)	1.538 (1134)	0.2 (148)
LST500M	300 (661)	45 (1.8)	20 (44.1)	2	4 (8.8)	24 (52.9)	1.538 (1134)	1.538 (1134)	0.2 (148)
LST600M	300 (661)	45 (1.8)	30 (66.1)	2	4 (8.8)	34 (75.0)	2.2 (1623)	2.2 (1623)	0.2 (148)
LST700M	300 (661)	45 (1.8)	44 (97.0)	2	4 (8.8)	48 (106)	3 (2213)	3 (2213)	0.2 (148)
LST800M	400 (882)	45 (1.8)	56 (123)	2	4 (8.8)	60 (132)	3.9 (2876)	3.9 (2876)	0.2 (148)
LST900M	400 (882)	45 (1.8)	74 (163)	2	4 (8.8)	78 (172)	4.9 (3614)	4.9 (3614)	0.2 (148)
LST1000M	500 (1102)	50 (2.0)	97 (214)	4	8 (17.6)	105 (231)	6.6 (4868)	6.6 (4868)	1.4 (1033)
LST1200M	500 (1102)	50 (2.0)	136 (300)	4	8 (17.6)	144 (317)	9.1 (6712)	9.1 (6712)	1.54 (1136)
LST1500M	800 (1764)	50 (2.0)	223 (492)	6	12 (26.5)	235 (518)	14.75 (10,879)	14.75 (10,879)	3.15 (2323)
LST1800M	1000 (2205)	60 (2.4)	350 (772)	6	12 (26.5)	362 (798)	20.7 (15,268)	20.7 (15,268)	3.78 (2788)
LST2000M	1000 (2205)	60 (2.4)	462 (1019)	8	16 (35.3)	478 (1054)	27.2 (20,062)	27.2 (20,062)	5.6 (4130)
HST800M	8000 (17,637)	45 (1.8)	59 (130)	4	22 (48.5)	81 (179)	45 (33,190)	38 (28,027)	8.6 (6343)
HST900M	8000 (17,637)	45 (1.8)	73 (161)	4	22 (48.5)	95 (209)	45 (33,190)	38 (28,027)	8.6 (6343)
HST1000M	10,000 (22,046)	50 (2.0)	95.5 (211)	9	49.5 (109)	145 (320)	90 (66,381)	82 (60,480)	15 (11,063)
HST1200M	10,000 (22,046)	50 (2.0)	133.5 (294)	9	49.5 (109)	183 (403)	112 (82,607)	98 (72,281)	17 (12,539)
HST1500M	15,000 (33,069)	50 (2.0)	204 (450)	16	88 (194)	292 (644)	200 (147,512)	156 (115,060)	24 (17,702)
HST1800M	15,000 (33,069)	50 (2.0)	296 (653)	16	88 (194)	384 (847)	224 (165,214)	178 (131,286)	28 (20,652)
HST2000M	18,000 (39,683)	60 (2.4)	460.5 (1015)	25	137.5 (303)	598 (1318)	238 (175,540)	195 (143,825)	36 (26,552)
HST2500M	25,000 (55,116)	60 (2.4)	711 (1567)	36	198 (437)	909 (2004)	265 (195,454)	202 (148,988)	45 (33,190)

Power Amplifiers*

** Systems tested & assembled in the USA coming soon. Contact Sentek Dynamics for availability.*

Digital Switching Power Amplifiers

Sentek Dynamics' modular digital switching (Class D) PA Series power amplifiers are air-cooled and designed for maximum reliability and efficiency. Rated power outputs range from 2 to 400 kVA. All amplifiers are provided with locking casters and BNC connectors on the front and rear panels of the logic control module. The power supply for shaker field coils and ancillary units are provided by the amplifier. Integrated ancillary units can be part of the start-up and stop sequences.

The logic control module with an LCD display and interactive microprocessor provides a user friendly interface and compatibility with most electrodynamic shakers. System status is continuously displayed and fault events are displayed on the LCD panel. Any over-current, over-travel, over-temperature or short-circuit will trigger an immediate system interrupt.

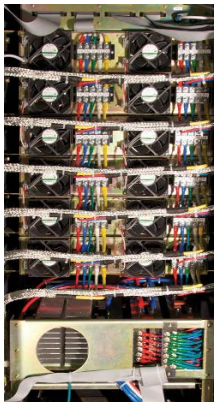
A remote control panel is available that duplicates the features and functions of the logic control module front panel.

Designed to reduce the loss of power in the event of a failed component, each 12 kVA power-module consists of two independent 6 kVA sub-modules utilizing the latest in MOSFET technology. Ample air-cooling is provided to allow continuous operation at high-output levels.

- LCD panel displays system status with instantaneous output voltage and current
- Conversion efficiency greater than 90%
- High modulation switching frequency
- High signal to noise ratio
- Low total harmonic distortion
- Certified to meet applicable CE requirements for EMC and safety

Linear Power Amplifiers

Sentek Dynamics' LA Series compact linear power amplifiers are designed to be used with Sentek Dynamics' line of permanent magnet desk top and modal shakers. They are adaptable to other manufacturer's permanent magnet shakers and applications requiring a linear amplifier. The LA Series of amplifiers is available with outputs ranging from 100 to 800 VA.



Replacement Amplifiers

Sentek Dynamics offers a full line of high-performance digital switching power amplifiers. These amplifiers are offered as replacements for older vacuum tube amplifiers and bipolar transistor amplifiers.

Many vibration test systems purchased over the last 40 years include low-efficiency water-cooled power amplifiers housed in large multi-bay cabinets. These old technology amplifiers consume large amounts of 3-phase electrical power, occupy excessive amounts of valuable floor space and require environmentally "unfriendly" watercooling systems. All of these problems have one solution – a new highly efficient, air-cooled digital switching power amplifier from Sentek Dynamics.

SENTEK
DYNAMICS

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