

## MINIATURE, MODAL, DUAL PURPOSE SHAKERS

# VIBRATION TEST SHAKER FAMILY

- Through-Hole Armature Modal Shakers
- Lightweight and Compact for Ease-of-Use
- Complete Systems Include Shaker, Amplifier, and Accessories
- Mini, Modal, Dual Purpose, and Inertial Shaker Options
- SmartShaker™ with Integrated Amplifier

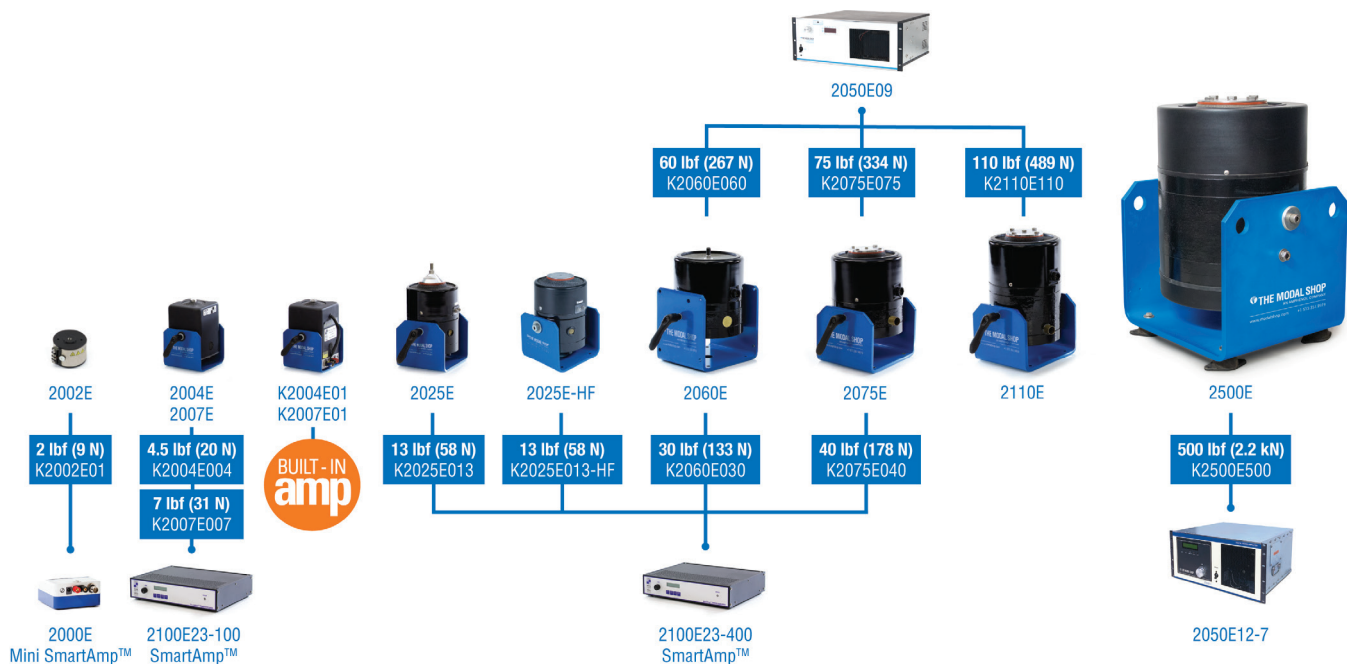
## TYPICAL APPLICATIONS

- Experimental Modal Analysis
- General Vibration Testing
- Environmental Testing
- Laboratory Research
- Product Reliability Testing

## VIBRATION TESTING SHAKER SYSTEM SOLUTIONS

The Modal Shop's electrodynamic exciter family includes small permanent magnet shakers rated from 500 lbf (2.2 kN) down to 2 lbf (9 N). Available designs include the revolutionary SmartShaker™ with integrated power amplifier, a variety of mini, through-hole modal, dual purpose platform and accelerometer calibration shakers, along with power amplifiers, and test accessories. These transducers are ideal for applications ranging from experimental modal analysis and general vibration testing of small components and sub-assemblies to vibration sensor testing and calibration.

The following selection guide on the reverse provides an overview of the basic shaker specifications. A simple graphical representation of shaker systems paired with appropriate power amplifiers indicates the corresponding system force ratings. Kit model numbers simplify the selection and ordering process, insuring that all the necessary shaker, amplifier, stingers, cooling blowers (if needed), and accessories are included. Visit our website for more information about each shaker.



## SPECIFICATIONS

Shaker Model	Kit Model	Max Force lbf (N) pk	Max Frequency <sup>[1]</sup> (Hz)	Stroke in (mm) pk-pk	Amplifier Model	Type	Applications
2002E	K2002E01	2 (9)	3 000	N/A	2000E	Inertial	Modal analysis, general vibration, small structures [circuit boards, small devices]
2004E	K2004E004	4.5 (20)	11 000	0.2 (5)	2100E23-100	Mini	
2004E	K2004E01	4.5 (20)	11 000	0.2 (5)	Integrated	Mini	
2007E	K2007E007	7 (31)	9 000	0.5 (13)	2100E23-100	Mini	
2007E	K2007E01	7 (31)	9 000	0.5 (13)	Integrated	Mini	
2025E-HF	K2025E013-HF	13 (58)	20 000	0.5 (13)	2100E23-400	Calibration Vibration Test	General vibration testing, calibration of vibration sensors
2025E	K2025E013	13 (58)	10 000	0.7 (18)	2100E23-400	Modal	Modal testing of small to large structures [sub-components, automotive, aerospace]
2060E	K2060E030	30 (133)	6 000	1.4 (36)	2100E23-400	Modal	
2060E	K2060E060	60 (267)	6 000	1.4 (36)	2050E09	Modal	
2075E	K2075E040	40 (178)	6 500	1.0 (25)	2100E23-400	Modal Vibration Test	Dual purpose design, modal testing of small to large structures, general vibration testing
2075E	K2075E075	75 (334)	6 500	1.0 (25)	2050E09	Modal Vibration Test	
2110E	K2110E110	110 (489)	6 500	1.0 (25)	2050E09 - FS	Modal Vibration Test	
2500E	K2500E500	500 (2 224)	4 500	1.0 (25)	2050E12-7	Vibration Test	General vibration testing, small to medium test articles [electronics, optical devices, satellite sub-components]

[1] Load dependent \* Cooling system not pictured and amplifiers not in scale