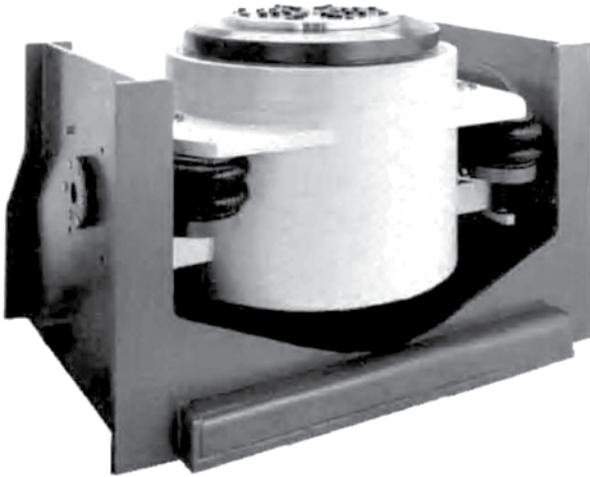


MODEL 4522 ELECTRODYNAMIC SHAKER

45,000 TO 90,000 FORCE POUNDS



- ▶ 23.25inch diameter, 275 lbs armature
- ▶ 45,000 pounds force (200 kN) Sine.
- ▶ 36,000 pounds force (160 kN) Random.
- ▶ 2" (50.8 mm) stroke
- ▶ Dual hydrostatic bearings for lateral support.
- ▶ Lin-E-Air™ Isolation system
- ▶ 3000 (1361 kg) pounds payload support

LING
ELECTRONICS
A Qualmark Company

The ling Model 4522 Shaker is a wideband, electrodynamic shaker designed for continuous testing of large and heavy specimens at high levels of acceleration for product qualification, reliability acceptance, and production stress screening applications. For higher force requirements call a Ling Sales Engineer to discuss our 5022 upgrade package which increases the peak sine force rating for this shaker to 50,000 lbf.

The shaker employs Ling's field-proven metallic loop flexures and dual high stiffness hydrostatic bearings for armature guidance. A unique new armature design which incorporates more efficient cooling techniques is the heart of the 4522.

The 4522 body suspension employs the exclusive Lin-E-Air pneumatic isolation system that suspends the body on air linear springs located at the trunnions. This system incorporates bearings, which restrain and guide the body in motion in the thrust axis, simplifying alignment with auxiliary horizontal tables. The low natural frequency of this body suspension system virtually eliminates the need for expensive large reaction masses for most applications.

The closed-loop water-to-water cooling system in conjunction with the new moving element design allows the 4522 to operate at full force conditions for an hour with out a significant rise in body temperature.

Over 50 Years of Proven Reliability!

MODEL 4522 ELECTRODYNAMIC SHAKER SPECIFICATIONS

45,000 TO 90,000 FORCE POUNDS

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| | |
|------------------------------|--|
| AXIAL STIFFNESS: | 1000 lbs. per inch (175 kN/m) |
| ARMATURE DIAMETER: | 23.25inch (590mm) with 22 inch bolt pattern |
| ARMATURE MASS: | 275 lbs. (124.7 kg) |
| ARMATURE SUSPENSION: | Half-loop metallic flexures and two Hydrostatic oil bearings |
| STATIC LOAD SUPPORT: | 3000 lbs. (1361 kg) |
| DISPLACEMENT: | 1.5 in. p-p (38.1 mm) continuous, 2.0 in. p-p (50.8 mm) shock |
| FORCE RATING: | 45,000 lbs (200 kN) Peak Sine 36,000 lbs (160 kN) RMS random 90,000 lbs (400 kN) Shock |
| MAXIMUM VELOCITY: | 70 IPS (1.78 m/s), bare table as limited by Amplifier voltage |
| MAXIMUM ACCELERATION: | 100g sine vector |
| FREQUENCY RANGE: | 5 to 2000 Hz |
| UTILITY POWER: | 415 max kVA |
| STRAY MAGNETIC FIELD: | 10 gauss (0.1 mT) at 6" (152 mm) above table |
| COOLING METHOD: | Closed-loop system circulates distilled water through armature and field coils. Heat is transferred through a water-to-water heat exchanger. Standard cooling units provided for cooling tower or chilled. |

