

# 4500 lbf. Vibration System

The series of Derritron "High Performance Air Cooled" shakers are designed for a wide variety of dynamic test conditions including Sinewave, Random, Shock and Seismic simulations over a wide frequency range. We offer a complete turnkey solution for all of your testing needs by supplying complete Shaker, Amplifier and Controller packages at reasonable prices. These systems are indispensable for complete and thorough product testing.

Derritron shakers are designed to run for extended periods over a long life span. These rugged shakers offer high transverse vibration strength and high axial stiffness and can be operated in either vertical or horizontal mode. A built-in Automatic Load Support System allows the armature to remain stable even with high test loads. A high power blower insures proper cooling of the shaker and is included.



The standard Swivel Trunnion includes air isolation mounts to reduce the vibrations of the shaker from transmitting to the floor. These shakers offer a variety armature head sizes to fully accommodate your test requirements and will allow you to verify and improve the quality of your products.

## Technical Specifications:

|  | DVS-4500-13                          | DVS-4500-17                          | DVS-4500-25                          |
|--|--------------------------------------|--------------------------------------|--------------------------------------|
| Shaker   | VP450-13                             | VP450-17                             | VP450-25                             |
| Amplifier  | DSA-24-3                             | DSA-24-3                             | DSA-24-3                             |
| Rated Peak Force (lbf)    Sine/Random/Shock      | 4500/4500/9000                       | 4500/4500/9000                       | 4500/4500/9000                       |
| Frequency Range (Hz)                             | DC-3000                              | DC-3000                              | DC-3000                              |
| Max. Displacement (In. pk-pk)                    | 2                                    | 2                                    | 2                                    |
| Max Velocity (in/s)        Sine/Random/Shock     | 71/71/98                             | 71/71/98                             | 71/71/98                             |
| Max. Acceleration (g)     Sine/Random/Shock      | 101/101/202                          | 93/93/186                            | 76/76/152                            |
| Rated Current (A)                                | 200                                  | 200                                  | 200                                  |
| Nominal Impedance (Ohm)                          | 0.3                                  | 0.3                                  | 0.3                                  |
| Suspension Stiffness (lbf/in)                    | 856                                  | 856                                  | 856                                  |
| Effective Moving Mass (lb)                       | 44.1                                 | 48.5                                 | 59.5                                 |
| Max Weight Tested (lb)                           | 904                                  | 904                                  | 904                                  |
| Main Resonance Frequency (Hz)                    | >2000                                | >2000                                | >2000                                |
| Weight With Trunnion (lb)                        | 6173                                 | 6173                                 | 6173                                 |
| Stray Magnetic Field (G)    Without/With DG Coil | 200/5                                | 200/5                                | 200/5                                |
| Armature Size (in)                               | 13                                   | 17.32                                | 25.2                                 |
| Interlocks                                       | Temperature<br>Overtravel<br>Airflow | Temperature<br>Overtravel<br>Airflow | Temperature<br>Overtravel<br>Airflow |

