

**Highest Force
Air Cooled
Shaker System**

K-SERIES

17,000 lbf (75.6 kN)

Unholtz-Dickie introduces the all air-cooled **K-Series** Vibration System featuring the new Model K-170 Shaker. Developed using finite element analysis and optimal materials, these robust systems are ideal for testing large packages at high force, with the convenience and space savings of air cooling. Performance ratings:

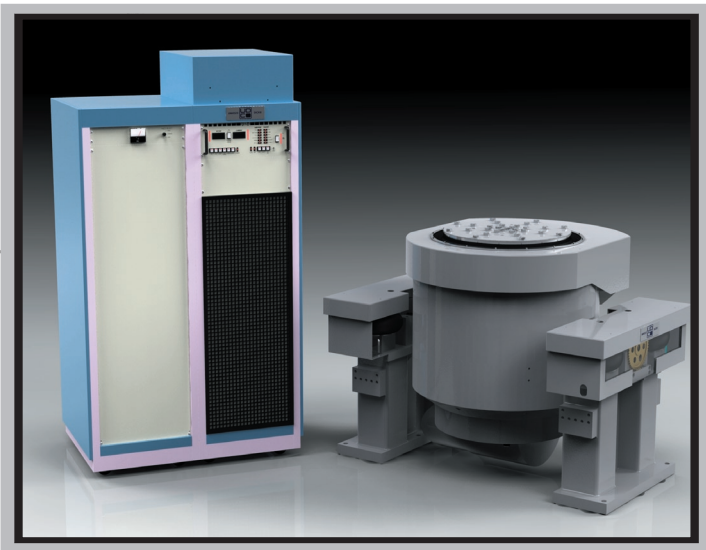
- 17,000 lbf (75.6 kN) Sine
- 16,000 lbf (71.2 kN) Random
- 34,000 lbf (151.2 kN) Shock

Key Features:

- All Air-Cooled
- 3 Inch (76mm) pk-pk Stroke
- Two Armature Sizes:
17.5" dia (445 mm) or 25.75" dia (654 mm)
- Dual In-Line Armature Guide Bearings
- Auto Load Centering 2,500 lbs (1,136 Kg)
- SAI-Series Amplifiers: Class D / IGBT Technology
- Velocity: 80 in/s (2.0 m/s) Sine
138 in/s (3.5 m/s) Shock



Vibration Test Equipment



System Features

The **K-Series** family of vibration test systems offers the industry's highest force all air-cooled, 3-inch pk-pk (76 mm) continuous displacement and is available with 17.5" (445 mm) or 25.75" (654 mm) armatures. Other highlights:

Completely Air Cooled: Air cooling boosts reliability and reduces the cost of installation, operation and maintenance. The extra floor space required by a water/water heat exchanger is eliminated along with the costs and hassles caused by hose / piping leaks and pump repair or replacement.

3 inch (76 mm) Displacement: K-Series shakers are rated at 3 inch (76 mm) continuous displacement, a capability required by current Mil Std 810 F/G transportation test specs and long duration shock pulse testing.

Rugged Armature: K-Series shaker armatures are cast from high strength aluminum or magnesium alloys and incorporate an optimized multi-rib design that maximizes stiffness and reduces mass.

Internal Load Support: 2,500lbs (1,136 kg) internal pneumatic load support, with automatic armature re-centering at mid-stroke.

Dual Internal Armature Guidance Bearings: Improves off-axis load restraint and enhances long term shaker armature reliability.

Three Base Configurations: Low Profile (LP), Pedestal Base (PB) and integrated Slip Table (ST) configurations are available.

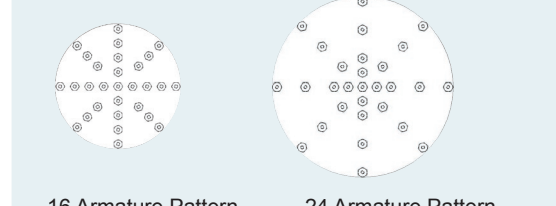
SAI-Series Class D Amplifiers: SAI Amplifiers utilize advanced Insulated Gate Bipolar Transistor (IGBT) technology, providing superior switching characteristics, >90% efficiency, and unmatched output stage current and voltage ratings for optimum shaker performance during sine and random testing. In addition, a selectable high voltage mode extends the system's shock output envelope beyond the industry standard for both Classical shock and SRS.

DC Field Supply: The DC Field Supply resides in a separate cabinet attached to the Power Amplifier console. A switch selectable Max Force or Energy Save field mode is standard, further minimizing electrical power consumption for tests that don't require full force output.

Direct Coupling: The amplifier output is direct-coupled to the armature, eliminating a matching transformer and its associated wiring. Direct coupling provides a major improvement in low frequency performance compared to transformer coupled amplifier/shaker systems.

Thermal Interface: Used for combining temperature and/or humidity environments simultaneously. UD works in conjunction with all leading environmental chamber companies to ensure successful integration and operation. Optional interface hardware includes: a silicone / neoprene thermal kit for vertical axis vibration, a G-10 thermal barrier for the slip plate for horizontal axis vibration, oil guard protection, air casters for moving the shaker, and a remote start feature enabled from a temperature chamber contact closure.

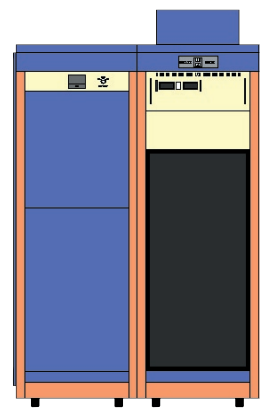
Configurations, Weights & Dimensions



Base Model	Pedestal Base (PB)	Slip Table (ST)	Low Profile (LP)
Length-in. (mm)	46.0 (1168)	103.8 (2,636)	68.9 (1,750)
Width-in. (mm)	64.5 (1,638)	61.8 (1,570)	45.6 (1,158)
Height-in. (mm)	47.6 (1,209)	58.5 (1,486)	40.7 (1,034)
Weight-lbs (kg)	10,200 (4,636)	16,000 (7,272)	8,800 (4,000)

Bolt Circle Pattern	
(1) HOLE ON CENTER (all)	
(4) HOLES ON 4 INCH (102 mm) DIAMETER (all)	
(8) HOLES ON 8 INCH (203 mm) DIAMETER (all)	
(8) HOLES ON 12 INCH (305 mm) DIAMETER (-16 armature only)	
(8) HOLES ON 16 INCH (406 mm) DIAMETER (all)	
(8) HOLES ON 24 INCH (610 mm) DIAMETER (-24 armature only)	

Cooling Fan	50 Hz	60 Hz
Length-in. (mm)	42.5 (1080)	42.5 (1080)
Width-in. (mm)	39 (991)	33.3 (846)
Height-in. (mm)	53.5 (1359)	52.4 (1331)
Weight-lbs (kg)	740 (336)	650 (295)
Airflow-CFM (M³/hr)	2500 (4464)	2500 (4464)



	Width-in. (mm)	Depth in (mm)	Height-in (mm)	Weight lbs (kg)
SAI90 Amp	38.37 (975)	31 (787)	81 (2057)	1100 (500)
Field Supply	38.37 (975)	31 (787)	70 (1778)	1100 (500)

Note: The Field supply cabinet is attached to the amplifier

UNHOLTZ-DICKIE CORPORATION

Rev. 1

World Headquarters
West Coast Division
European Division
Website:

6 Brookside Drive, Wallingford, Connecticut 06492
409 N. PCH #132, Redondo Beach, CA 90277
Karl-Unsin-Str. 1, D-83059 Kolbermoor, Germany
www.udco.com

Tel: (203)265-3929 FAX: (203) 265-2690
Tel: (310) 316-0275 FAX: (310) 347-4120
Tel: +49 8031 234 734 FAX: +49 8031 234 735
email: info@udco.com