

SignalForce[®] Shakers and Accessories



Shakers

Amplifiers

Accessories



SignalForce[®]

Shaker and Accessories



SignalForce Shaker Systems



Data Physics has been a supplier of dynamic signal analyzers and vibration controllers for over 20 years and began supplying total vibration test systems about five years ago.

In February 2004, Data Physics acquired Gearing & Watson, a 35-year-old manufacturer of shakers in the UK. Both Data Physics and Gearing & Watson are ISO 9001:2000 registered companies with a commitment to quality. Data Physics shakers are sold under the trademark SignalForce along with SignalStar vibration controllers and SignalCalc dynamic signal analyzers.

Data Physics opened a new shaker manufacturing operation in Southern California in December 2005. Staffed by highly experienced designers and craftsmen who worked for Ling Electronics in Anaheim, before the company was dissolved by Satcon. Data Physics' Corona facility manufactures water cooled shakers to complement the air cooled shakers made at its Gearing & Watson facility in Hailsham, England. The new water cooled models span the range of 80 KN (18,000 lbf) to 222 KN (50,000 lbf). Collectively, Data Physics employees have over 180 years experience in building water cooled shakers.

All systems are manufactured and designed in-house, using SolidWorks for 3-D modeling and Cosmos software for Finite Element Analysis, Magnetics Analysis, and Fluid Dynamics Analysis.

Parts & Service

Data Physics also manufactures spares parts for all SignalForce and Ling shakers including very old shakers built long ago by Ling Electronics when the company was in existence. Data Physics also has a worldwide field service capability and in conjunction with its partners/ distributors offer service for SignalForce, Ling and LDS shakers that are compatible with Ling shakers.

Complete Vibration Test Systems

SignalForce Vibration Test Systems provide dynamic testing solutions including: shakers, power amplifiers, slip tables, head expanders & fixtures for environmental test, environmental stress screening, modal excitation and AGREE testers.

Shakers

SignalForce Shakers

SignalForce shakers are renowned for superior designs that offer higher reliability. Users of vibration test systems for product test and dynamic signal analyzers for modal analysis are now able to buy a complete solution of the highest quality and performance from one source.

- Inertial Shakers - 6.7 lbf (30 N) to 56.2 lbf (250 N)
- Modal Shakers - 11 lbf (49 N) to 475 lbf (2.1 kN)
- Air cooled Shakers - 2 lbf (9 N) to 12000 lbf (53.4 kN)
- Water cooled Shakers - 18000 lbf (80 kN) to 50000 lbf (222 kN)



Amplifiers

SignalForce Amplifiers

SignalForce amplifiers provide very high levels of efficiency with superior levels of performance. These amplifiers occupy little space and are suitable for driving shakers from all manufacturers, as well as other laboratory applications.

EMC has been a major factor in the design of the digital switching amplifiers. Full use has been made of Faraday cages, compartmentalization, filtered interconnections, segmented wiring, common mode chokes for symmetrical currents, mains filters, optical coupling of signals and screened cables.



- 1kVA to 470kVA
- Up to 95% efficient
- Switches at 100kHz
- Includes field & degaussing supplies
- Safety interlocks
- Protection against over current and over temperature
- Remote & chamber interfaces
- Drives all shakers
- Switching amplifiers
- 1kVA to 10 kVA modules
- Includes field & DG supplies
- PA Linear amplifiers from 30VA to 1kVA

Accessories

SignalForce Accessories

SignalForce offering includes a selection of slip tables together with head expanders and fixtures to accommodate a wide range of applications and facilitate your vibration testing.

- Monobases
- Sliptables
- Head Expanders
- Fixtures
- Noise Reduction Enclosures
- Chamber Interfaces

