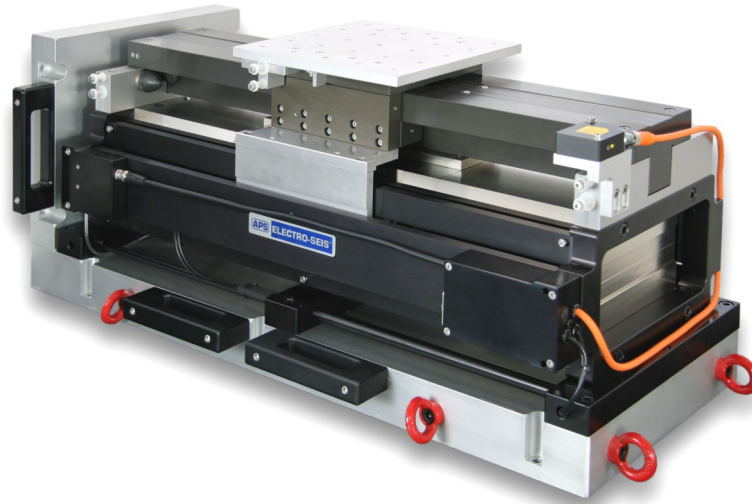


APS 600 ELECTRO-SEIS®

Very Long Stroke Shaker with Air Bearing Load Mounting Table



The **APS 600 ELECTRO-SEIS®** Air Bearing shaker is a very long strong force generator specifically designed to be used for calibration and evaluation of accelerometers and other motion transducers. It provides excellent properties for very low frequency excitation of such devices. This model consists of an air bearing table that allows high payloads up to 25 kg (55 lb) e.g. for the calibration of geophones and heavy seismic sensors.

Applications

- Calibration and test for seismic instruments like geophones and heavy seismic sensors
- Seismic simulation for components

Features

- 200 N (45 lbf) force (sine peak)
- 450 mm stroke (peak - peak)
- 254 x 254 mm (10 x 10-in) load mounting table
- Air bearing guidance and support system carries up to 25 kg (55 lb) test load with very low cross-axis motion
- Efficient electrodynamic driver produces sine, random or transient waveforms
- Excellent waveform purity
- Horizontal and vertical operation

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Description

The APS 600 ELECTRO-SEIS® shaker consists of a driver attached to a load mounting table and air bearing assembly. The shaker imparts transverse base excitation to items mounted on the table.

Static and dynamic loads normal to the table surface are transferred through a large area precision air bearing to a rigid guide bar of rectangular cross section. The driver unit and guide bar assembly are mounted on a common rigid base.

The standard hole pattern consists of 25 threaded holes in a 5 x 5 array. Optional metric threads and spacing are available.

The driver unit employs permanent magnets and is configured such that the armature coil remains in a uniform magnetic field over the entire stroke range ensuring a high degree of linearity. The self-cooled armature coil requires power from a matching electronic power amplifier.



APS 600 - Vertical Operation
with APS 0109 - Zero Position Controller

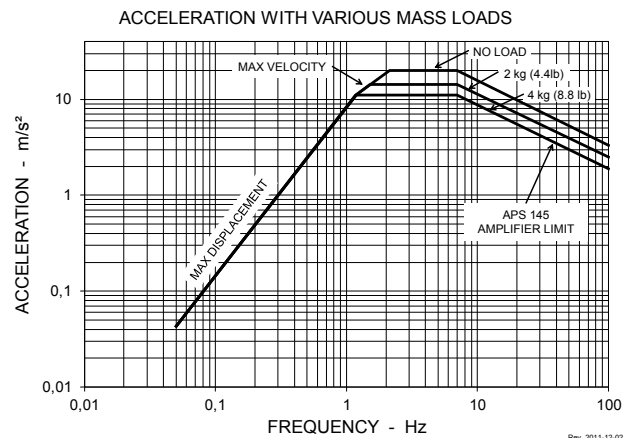
Clean, water and oil free air for bearing operation is carried to the moving bearing housing by flexible PVC tubing, constrained to move with a rolling action.

The shaker may be used with optional accessory items to extend the areas of application:

APS 0109 - ZERO POSITION CONTROLLER - automatically controls the zero position of a vibration exciter irrespective of its load.

Performance

Test loads of up to 25 kg (55 lb) can be driven to acceleration levels typical of those found in seismic specifications. Performance envelopes of the APS 600 shaker with the APS 145 Power Amplifier are given in the graph. These envelopes represent the maximum acceleration for various test loads that can be achieved on the table.



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Very Long Stroke Shaker with Air Bearing Load Mounting Table

Specifications

Shaker	APS 600	
Force (Sine Peak)	200 N (45 lbf)	
Stroke (Peak - Peak)	450 mm (17.5 inch)	
Frequency Range	DC ... 100 Hz	
Operation	horizontal or vertical	
Armature Weight	10 kg (22 lb)	
Max. Payload	Horizontal Vertical	25 kg (55 lb) 8 kg (18 lb)
DC Coil Resistance	1.6 Ω	
Air Pressure Required	2 bar ... 3 bar (30 psig ... 45 psig)	
Air Flow Required	650 l/h (0.4 cfm)	
Air Quality	ISO 8573.1 Class 3	
Total Shaker Weight	230 kg (505 lb)	
Overall Dimension L x W x H	900 x 440 x 360 mm (35.5 x 17.4 x 14.2 inch)	
Load Table Size L x W	254 x 254 mm (10 x 10 inch)	
Operating Temperature	23 degrees C (± 2 K)	
Storage Temperature	-25 ... 55 degrees C	

Accessories (optional)

Shaker	APS 600
Power Amplifier	APS 145
System Cable for Connection Shaker to Amplifier	APS 0082-6E
Zero Position Controller for Vibration Exciters	APS 0109

Additional accessories available