

MODEL 3001-10-AVS SINGLE AXIS ANGULAR VIBRATION SYSTEM

DESCRIPTION

The Model 3001-10-AVS Table series is a special-purpose test table designed for stimulating sensors with angular vibration. It features a servo-controlled direct-drive table with a Commercial off the shelf (COTS) Vibration Controller.

The system incorporates a Commercial off the shelf (COTS) Vibration Controller designed specifically for closed-loop shaker control. The shaker utilizes a direct-drive DC brushless motor to produce torque, and two accelerometers mounted to the tabletop produce vibration feedback. The shaker is designed to be used in a laboratory setting under controlled environmental conditions.

The 3001-10-AVS series is available with an Integral Thermal Chamber as an optional feature, offered in three configurations: LN₂, CO₂, or mechanically cooled.

STANDARD FEATURES

- Single Axis Table configured as follows:
 - Vertical Axis Configuration
 - 10 inch (254 mm) diameter tabletop
 - Limited Rotation
 - High torque, zero cogging motor
- Ideal Aerosmith Console containing a COTS vibration Controller
 - Linear amplifier drive

OPTIONS

- Custom tabletop sizes
- Integral Thermal Chamber System (LN₂, CO₂, or mechanically cooled)
- Cryogenic Proportional Valve
- Cryogenic Ball Valve

For special requirements, please contact Ideal Aerosmith regarding system customization

PERFORMANCE SPECIFICATIONS

Axis Wobble	5 arc sec (0.00138 deg)
Range of Motion	☐ Standard: ±30 deg ☐ Optional: ±60 deg
Maximum Test Load Weight, lbs. (kg) *	15 (6.8) (Balanced)
Maximum Test Load Inertia, lb-in ² (kg-m ²)	15 (0.0044) (Balanced)
Dynamic performance (Operation frequency and flat response listed are with maximum payload mounted to the table)	
Operation Frequency	10Hz-1000Hz
Flat response	Flat response ±3dB
Motion Profiles	
Randomized	40(Rad/s ²) ² /Hz Power Spectrum Density (200rad/s ² RMS)
Other motion profiles are available upon request	

Rev C