

FULL SERVICE SEISMIC and SHIPBOARD VIBRATION FACILITY

GR-63-CORE MIL-STD-167-1

**Innovation.
Integrity.
Dependability.**



Dayton T. Brown, Inc.'s vibration facility meets the requirements for the GR-63-CORE specification and the Mechanical Vibrations of Shipboard equipment per MIL-STD-167-1.

SYSTEM CAPABILITIES

- Dynamic Design Analysis Method (DDAM) NAVSEA 0908-LP-000-3010 Rev1. (Navy Spec.)
- Capable of replicating a Zone 4 seismic event
- Testing payloads greater than 6000 lbs. with a center of gravity 5 feet above the table
- Dynamic force ratings to 32,000 lbs. horizontal; 32,000 lbs. vertical
- Table size 6 feet x 8 feet horizontal; 6 feet x 6 feet vertical
- Full rated performance to 100 Hz
- Dynamic displacement 10.5 inches, overall displacement 12 inches
- Maximum velocity of over 40 inches/second

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Product Life Cycle Support Services
Serving Military and Commercial Markets
Since 1950



* Accredited Test Lab
767.01, 767.02, 767.03

ISO 9001:2008 and AS9100C
Registered



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Please direct all inquiries to: 1-800-232-6300 • email test@dtb.com
Visit our web site at: www.dtb.com

* Please visit www.dtb.com for testing covered under our scopes of accreditation.

Dayton T. Brown, Inc. is a 300,000 sq.ft. independent engineering and test organization whose existing management system was developed to accommodate over 2,000 programs per year. These projects range from a brief test or evaluation to a complex support engineering, research and development program of many years' duration. Dayton T. Brown, Inc. provides complete "cradle to grave" integrated product support services encompassing engineering design and analysis, prototyping, fabrication, test and evaluation, test equipment development, and support and documentation development and support.

TESTING

- Simulate and record natural and induced environments on units under test.
- Test to Government, military and commercial specifications and standards.
- Perform nondestructive and destructive testing.
- Operate unit under test and verify its performance.
- Develop control plans, test plans, test procedures.
- Analyze test data and document in a formal test report.

Climate/Atmospheric Simulations
 High/Low Temperature
 Combined Environments
 Wind & Rain
 Salt Fog
 Explosive Atmosphere
 Sand & Dust
 Humidity
 Fungus
 Icing/Freezing Rain
 Solar Radiation
 Thermal Vacuum
 Altitude

Optical Testing
 Distortion Analysis
 Luminous Transmittance
 Reflectance
 Prism Measurements
 Laser Power
 Spectrophotometric Analysis
 Haze
 Diffuse Transmittance
 Spherical and Cylindrical Power
 Neodymium Laser (1.06u)
 Light Intensity
 Chromaticity

Electromagnetic Environment Simulation
 Electromagnetic Compatibility (EMC)
 Electromagnetic Interference (EMI)
 Radiated Frequency Interference (RFI)
 Electromagnetic Pulse (EMP)
 Electromagnetic Vulnerability (EMV)
 Radiation Hazard
 FCC
 Lightning
 Transients
 Electrical Disturbance
 Electrostatic Discharge (ESD)
 Low Level Swept Coupling
 Bulk Current Injection
 TEMPEST

Dynamic Simulation
 Vibration: Electrodynamics,
 Electrohydraulic, Mechanical
 Acceleration
 Inclination
 Acoustic Noise
 Shock: Classical, Pyro, Gunfire,
 Hammer (Light & Medium Weight),
 Windblast, Catapult

Hydraulic/Pneumatics Testing
 Proof Pressure
 Contamination
 Leakage
 Hydrostatic Burst
 Flow
 Soak/Deterioration

Mechanical Testing
 Fatigue
 Stress
 Magnetic Particle
 Liquid Penetrant
 Tensile

ENGINEERING

Site Surveys
 Quality Audits
 Failure Analysis
 Software Testing
 Reverse/Re-Engineering
 Software Development
 ATE Software Design & Development
 Data Acquisition & Interface

Prototype Design & Fabrication
 Failure Modes & Effects Analysis
 Test Facility Design & Development
 Performance Test Equipment Design & Fabrication
 Reliability/Maintainability Modeling
 Product Improvement & Validation
 Development and Validation of Procurement Packages
 Hardware Standardization Programs



A World of Engineering and Testing Under One Roof™

DAYTON T. BROWN, INC.
ENGINEERING & TEST DIVISION



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