



Is your product engineered and built to withstand potentially damaging environments of vibration and shock? Let Trace verify the structural and functional integrity of your product before it is released to the field.

Custom Services

Trace's universal holding fixtures can be modified to accommodate your product in a multitude of orientations that simulate or accelerate dynamic environments that your product will experience in application. Specialized fixtures can be designed and fabricated by our staff for more complex configurations.



Dynamic Test Capabilities

Vibration

- Random Vibration
- Sinusoidal Vibration
- Sine on Random Vibration
- Random on Random Vibration
- Resonance Identification
- Fixed Resonance Dwell
- Vibration Screening
- Field Replication

Classical Shock

- Half Sine
- Saw-Tooth
- Trapezoidal

Synthesized Waveforms

Shock Response Spectra (SRS)

Repetitive Shock

Types of Testing

- Transportation Testing
- Package Testing
- Testing Under Actual Loads
- Combined Environmental Testing
- Customized Test Tailoring
- Transient Measurements
- Failure Analysis
- Product Verification and Redesign

Fixture Design and Fabrication

Fixture Surveys

Product Monitoring

- Contact Chatter
- Resistance
- Change in Voltage

Functional Testing

Specifications Include:

- | | | |
|----------------|---------------|------------------------|
| ■ MIL-STD-810 | ■ ISTA | ■ IPC |
| ■ MIL-STD-1344 | ■ Ford | ■ IEC |
| ■ MIL-HDBK-217 | ■ MIL-STD-202 | ■ UL |
| ■ JIS-D-1601 | ■ MIL-STD-167 | ■ Chrysler |
| ■ SAE | ■ MIL-STD-883 | ■ GM |
| ■ NEMA | ■ NAVMAT | ■ Numerous Specialized |
| ■ ANSI | ■ RTCA-DO-160 | Customer Requirements |
| ■ EIA | ■ ASTM | |

Internationally Accredited Independent Testing Services



Vibration/Shock Testing Services

Product Testing Range

- Components
- Sub-assemblies
- Complete Systems
- Small and Large Projects
- Various Levels and Test Environments
- Massive Products and/or Many Samples in a Single Run

Halt/Hass Testing

Trace conducts Accelerated Stress Testing (AST) with a 64 (48" x 48") cubic foot chamber from Chart Industries. This chamber gives Trace the ability to offer rapid temperature change rates and multi-axis vibration testing. The chamber has a temperature range of -100°C to 200°C with a change rate greater than 60°C per minute and vibration levels greater than 50 Grms, dependant on the load.

Services

- Acceleration
- DSCC, DGSC, and DISC
- Explosion Proofing
- Failure Analysis
- Solder Joint Reliability



Testing is performed in strict accordance with the standards and customer-specific requests. The lab is also available on a per-day basis for preliminary testing and troubleshooting.

Trace is an A2LA Accredited Laboratory.

Independent, Internationally Accredited Testing Services

- ✓ Chemical Testing
- ✓ Electrical Testing
- ✓ EMC (Electromagnetic Compatibility)
- ✓ Environmental Testing
- ✓ Failure Analysis/Contamination
- ✓ HALT (Highly Accelerated Life Test)
- ✓ Material Properties
- ✓ Mechanical Testing
- ✓ Printed Circuit Board Testing
- ✓ Reliability/Durability/Qualification
- ✓ Thermal Analysis
- ✓ UL Testing
- ✓ Vibration Testing
- ✓ Water Testing

For more information, or for a quote on specific test requirements, contact

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