# THE AMERICAN ASSOCIATION FOR LABORATORY ACCREDITATION

# ACCREDITED LABORATORY

A2LA has accredited

## DAYTON T. BROWN, INC.

**Bohemia, NY**

for technical competence in the field of

## Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated January 2009*).

Presented this 13th day of March 2009.

President
For the Accreditation Council
Certificate Number 0767.03
Valid to December 31, 2010

For the tests or types of tests to which this accreditation applies,
please refer to the laboratory's Mechanical Scope of Accreditation.

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

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MECHANICAL

Valid To: December 31, 2010 Certificate Number: 0767.03

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following mechanical tests on Military, Aerospace, Automotive and Commercial Products:

Altitude - 14.1 Meters (-282 Feet to 122,000 Meters); 400,000 Feet or $5x10E^{-6}$ TORR
Chamber Volumes up to 745 Cubic Feet
Combined Environments - Vibration and Temperature
Durability
Dye Penetrant
Explosive Environment - Chamber Volume 75 Cubic Feet, Altitudes up to 50,000 Feet
Fungus Test Area Size 36 in x 36 in
Temperature and Humidity - Relative Humidity Range from Desert (5% RH @ 120°F) to a Tropical Forest (100% RH @ 65F to 165°F)
Chamber volumes up to 3500 Cubic Feet
Magnetic Particle Inspection
Salt Fog/Spray Chamber up to a Chamber Volume of 2500 Cubic Feet
Sand & Dust Chamber Volumes up to 200 Cubic Feet; Velocities up to 5700 Feet/Minute
Seat Belt Assembly Testing
Thermal Shock
Sun/Solar Radiation
Temperature - Chambers from 64 Cubic Feet to 3500 Cubic Feet;
Ambient temperatures from (–300 to 350)°F
Water Immersion
Wind and Rain

Using the following specifications directly related to the above listed testing parameters and technologies:

| Test Technology | Test Method(s) |
|---|---|
| Low Pressure (Altitude) | MIL-STD-810 C (500.1), D (500.2), E (500.3), F (500.4) |
| High Temperature | MIL-STD-810 C (501.1), D (501.2), E (501.3), F (501.4) |
| Low Temperature | MIL-STD-810 C (502.1), D (502.2), E (502.3), F (502.4) |

| Test Technology | Test Method(s) |
|---|---|
| Temperature Shock | MIL-STD-810 C (503.1), D (503.2), E (503.3), F (503.4); MIL-STD-202 (107G) |
| Temperature/Altitude | MIL-STD-810 C (504.1); RTCA/DO-160E (4.0) |
| Temperature Variation | RTCA/DO-160E (5.9) |
| Solar Radiation (Sunshine) *(Except UV)* | MIL-STD-810 C (505.1), D (505.2), E (505.3), F (505.4) |
| Rain | MIL-STD-810 C (506.1), D (506.2), E (506.3), F (506.4) |
| Humidity | MIL-STD-810 C (507.1), D (507.2), E (507.3), F (507.4); MIL-STD-202 (103B); RTCA/DO-160E (6.0) |
| Fungus | MIL-STD-810 C (508.1), D (508.2), E (508.4), F (508.5); RTCA/DO-160E (13.0) |
| Salt Fog | MIL-STD-810 C (509.1), D (509.2), E (509.3), F (509.4); MIL-STD-202 (101D) |
| Dust (Fine Sand) | MIL-STD-810 C (510.1), D (510.2), E (510.3), F (510.4); MIL-STD-202 (110A); RTCA/DO-160C (12.0) |
| Explosive Atmosphere | MIL-STD-810 C (511.1), D (511.2), E (511.3), F (511.4); MIL-STD-202 (109B); RTCA/DO-160E (9.0) |
| Leakage (Immersion) | MIL-STD-810 C (512.1), D (512.2), E (512.3), F (512.4) |
| Space Simulation (Unmanned Test) | MIL-STD-810 C (517.2) |
| Temperature/Humidity/Altitude | MIL-STD-810 C (518.1) |
| Temperature/Humidity/Vibration | MIL-STD-810 D (520.0), E (520.1), F (520.2) |
| Icing/Freezing Rain | MIL-STD-810 D (521.0), E (521.1), F (521.2) |
| Magnetic Particle | ASTM E1444 |
| Dye Penetrant | ASTM E1417 |
| Shock and Crash Safety | RTCA/DO-160E (7.0) |
| Waterproofness | RTCA/DO-160E (10.0) |

| Test Technology | Test Method(s) |
|---|---|
| Fluid Susceptibility | RTCA/DO-160E (11.0) |
| Salt Spray | RTCA/DO-160E (14.0); ASTM B117; ASTM G85 |
| Seat Belt Testing | FMVSS 209: S4.1 Paragraphs (d) Hardware, (h) Webbing, (i) Strap, (j) Marking and (m) Workmanship; S4.2 Requirements For Webbing (*excluding paragraph (f) Resistance to Micro-Organisms*), S4.3 Requirements for Hardware; S4.4 Requirements for Assembly Performance |
| Transportation Seal Tensile Test | ISO/PAS 17712:2005, 5.2; ASTM F1157 |
| Transportation Seal Shear | ISO/PAS 17712:2005, 5.3; ASTM F1157 |
| Transportation Bend Test | ISO/PAS 17712:2005, 5.4; ASTM F1157 |
| Transportation Impact Test | ISO/PAS 17712; ASTM F1157 |