

Environmental Testing



Validate Performance. Prove Reliability. Reduce Risk.

DTB helps manufacturers validate product performance in the harshest operating environments. From extreme temperatures and altitude to immersion, corrosion, rain, dust, and thermal vacuum, we simulate real-world conditions to ensure reliability before products reach the field.

Why DTB?

- Complete Environmental Simulation Capabilities
- MIL-STD-810, RTCA/DO-160, ASTM, IEC, & Customer Specifications
- Large-Scale Test Chambers for Oversized Equipment
- Integrated Engineering Support & Data Acquisition
- Fast Turnaround & Flexible Scheduling
- One of the Largest, Independent Testing Laboratories in the U.S.
- 75+ Years of Testing & Engineering Experience



Environmental Testing at Scale

- 30+ Environmental Chambers
- Test Volumes from 2 ft³ to 4,500 ft³
- Altitude Simulation to 80,000+ ft
- Temperature Range from -120°F to +350°F
- Humidity up to 98% RH
- Thermal Vacuum to 1 x 10⁻⁵ Torr



Tested to Industry Standards

MIL-STD-810 Methods 500-525

Altitude
Temperature
Humidity
Rain
Salt Fog

Sand & Dust
Explosive Atmosphere
Immersion
Combined Environments

Acoustic Noise
Shock
Acceleration
Solar Radiation

Also Supports

RTCA/DO-160
ASTM
IEC
Customer Specifications

Environmental Testing Capabilities

Temperature & Environmental Stress

Validate performance in extreme heat, cold, humidity, and rapidly changing conditions. Capabilities include temperature shock, environmental stress screening (ESS), and combined temperature/humidity testing.



Pressure & Decompression Testing

Evaluate product performance in airborne and high-altitude environments through altitude, overpressure, rapid decompression, and explosive decompression testing.



Water & Climate Exposure Testing

Assess performance in rain, immersion, icing, and other harsh weather conditions, including wind-driven rain, ice and freezing rain, deep immersion, and specialized EV and hybrid vehicle testing.



Environmental Exposure Testing

Evaluate durability in corrosive and contaminated environments through salt fog, SO₂ corrosion, fluid susceptibility, sand and dust, fungus, and solar radiation testing.



Specialized Environments

Support demanding aerospace, defense, and space applications with thermal vacuum, explosive atmosphere, and combined environment testing.



Markets Served



Aircraft &
Avionics



Military
Systems



Ground
Vehicles



Marine
Equipment



Industrial
Electronics



Space
Hardware

Need Environmental Testing You Can Trust?

From design validation to certification testing, DTB delivers the expertise and facilities needed to ensure performance with confidence.



Contact DTB

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