

ENVIRONMENTAL CHAMBER TESTING

**Innovation.
Integrity.
Dependability.**



System Capabilities

- Temperature range: -85°F to 350°F
- Temperature rate of change greater than 5°C/minute
- Humidity range: 10% to 95%
- Refrigeration systems: 4-sets of cascade 30-Hp compressors
- Heating system: 240,000 watts
- Interior work space & volume: 15'W x 25'D x 12'H, 4500 cubic feet
- Walk-in or drive in facility
- Floor bearing load of over 100 pounds per square inch
- Motorized sliding full opening front door

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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



* NVLAP LAB CODE
200422-0

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Visit our web site at: www.dtb.com

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

Altitude Testing. Our testing facilities simulate altitudes from below sea level (-2,000 ft), to a high altitude of 100,000 ft. Testing is performed in our six altitude testing chambers that are all connected to a group of vacuum pumps, which can all be applied to any one chamber.

High / Low Temperature Testing. Within environmental testing chambers ranging in size from 10 to 4,500 cubic ft, we generate temperatures as cold as an evening on Mars or as hot as a morning on Mercury. We have over 30 temperature testing chambers.

Humidity Testing. DTB humidity chambers range in size from our large drive-in environmental test facility, to our standard chamber, which is 64 cu ft in volume.

Combined Environments Testing. We own multiple facilities, combining temperature/humidity chambers with electrodynamic vibration facilities. The chambers have rapid rates of temperature change and the vibration testing facilities 18,000 force-pound shakers, with frequencies up to 2000 Hz. Additionally, we have two facilities that provide temperature/humidity/altitude test conditions.

Ice, Rain and Sunshine Environmental Testing. Whether it is steady state or diurnal cycles, we produce solar radiation to meet your environmental testing technical requirements. Need rain? We'll give you a spring drizzle, torrential wind driven rain, or anything else, including freezing rain and ice.

Salt Fog and Spray Testing. Accelerated corrosion atmospheres for the effects of salt and sea mist are applied to items as large as a pick-up truck. Other contaminants like SO₂ can be added according to desired environmental testing conditions.

Sand and Dust Testing. We can recreate a desert storm or the air blast from an aircraft with the wind-driven abrasion and erosion of sand and dust, combined with actual temperatures.

Fungus Testing. In hot and humid environments, fungus can cause equipment damage and create a health liability. We'll simulate these ill effects in a controlled environmental test. DTB has a dedicated fungus chamber to subject either a test item or items to the MIL-STD fungus spores.

Explosive Atmosphere Testing. This test assures the safety of a component exposed to explosive vapors or to other dangerous environments. Our environmental testing facility can be used to test the most complex flight electronics system or a shop vacuum used in a gas station.

Explosive Decompression Testing. Using various altitude testing chambers and pressure vessels we can obtain a wide range of rapid decompression requirements from 1 ms. to 15 seconds in duration.

Fluid Compatibility Testing. Subjecting test items or material samples to various types of fluids as required by either the MIL-STD testing requirements, or the test item's actual life cycle.

Thermal Vacuum. Our testing chamber is 4ft in diameter and 6ft deep, with heating and cooling that can be accomplished by direct contact through the use of a plate that heats and cools. This chamber can attain pressures up to -1×10^{-5} TORR.

Wind and Rain Exposure. DTB's wind and rain testing facility can provide rain from a sprinkle to a torrential downpour and winds up to 75 mph. This combination permits DTB to meet MIL-STD and aircraft specific testing requirements.



A World of Engineering and Testing Under One Roof™

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ENGINEERING & TEST DIVISION



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