

Our Anechoic and Hemi-Anechoic Chambers are used in a wide variety of measurement and acoustic test applications by clients to include:

- Toro
- Visteon
- Nokia
- Intel
- Cisco Systems
- Calsonic
- Caterpillar
- Bose
- Georgia Institute of Technology
- Dell Computer
- AGC - American Glass Company
- Whirlpool
- Porter Engineered Systems
- Unaxis
- Panasonic
- Sony
- Western Digital
- Delco
- ITT
- Denso
- Valeo
- Delphi
- Lucent Technologies

Acoustical Expertise for Your Application

Acoustic Systems' experienced professionals can apply their acoustic expertise to achieve outstanding chamber performance by conducting preliminary site surveys, analyzing chamber or product characteristics at our in house acoustical research facility, or by performing field verifications.

Site Survey Capabilities

Acoustic Systems can perform a pre-sales site survey to determine the best test chamber for your application.

- Identification and risk analysis of air borne and structure borne threats
- Measurement and evaluation of host conditions
- Cost of survey can be applied toward purchase

Acoustic Systems Acoustical Research Facility

Our NVLAP accredited product development and commercial laboratory (NVLAP Code 100286-0) offers sound transmission loss, sound absorption, sound power level, and noise emission testing. Our laboratory engineers can devise a test plan to determine product noise characteristics, which will assist in the design and implementation of your new test chamber.

Field Verification

Acoustic Systems can perform an on-site chamber performance verification, measuring interior ambient levels and sound field quantification. Field test methods take guidance from some of the following testing standards:

- ISO 3745
- ISO 3744
- ISO 3741
- ASTM E336

Turnkey Systems

Ask us about turnkey systems that combine hardware and software to determine sound power levels.

Since 1971, Acoustic Systems has built a reputation for exceeding customer expectations through its responsive and technically superior approach for constructing outstanding acoustic test chambers.

Acoustic Systems is a recently-acquired division of ETS-Lindgren, the proven world leader for components and systems that measure, shield, and control electro-magnetic energy. ETS-Lindgren is a part of ESCO Technologies Inc., a leading supplier of engineered products for growing industrial and commercial markets. ESCO is a New York Stock Exchange listed company (ESE) with headquarters in St. Louis, Missouri.

415 E Saint Elmo Road
Austin, TX 78745 USA
512.444.1961 • FAX 512.444.2282
www.acousticsystems.com
info@acousticsystems.com

Acoustic Test Chambers



ACOUSTIC SYSTEMS
A Division of **ETS-LINDGREN**

Customer Specific Solutions

Acoustic Systems designs, constructs, and installs acoustic test chambers to meet your unique testing requirements and to support high standards of product research and development, quality assurance, and regulatory compliance. Our company is known for applying its acoustic testing expertise to your project needs and testing requirements to achieve outstanding chamber performance.



The above Test Chamber Suite illustration depicts a Hemi-Anechoic chamber, used for sound power testing, and outfitted with melamine foam wedges. The reverberation chamber features a large access door with a ramp for efficient vehicular access. The control room houses all of the testing equipment and provides visibility and/or access into each of the test chambers. This example demonstrates one of the various levels of construction that Acoustic Systems can provide to meet your specific requirements.

Full Anechoic Test Chambers

✦ F₃ - 100

Full anechoic chamber utilized for performing precision level, far field measurements on hand-held or small devices when meeting a standard for regulatory compliance.



✦ F₃ - 250

Full anechoic chamber for performing engineering grade or near field measurements on hand-held or small sources, designed for research and development and repeatability.

Reverberation Test Chambers

✦ R₂ - 100

Reverberant chamber for performing absorption tests and sound power tests on large equipment, or for providing a diffuse field during transmission loss studies.



Hemi-Anechoic Test Chambers

✦ F₂ - 80

Large hemi-anechoic chamber for performing precision measurements on vehicles, engines, and equipment.



✦ F₂ - 100

Hemi-anechoic chamber for performing precision measurements on computers, server racks, and office equipment.

✦ F₂ - 250

Hemi-anechoic chamber for performing engineering grade measurements on small equipment or devices or for critical listening.

Test Cells for Small Device Testing

✦ TC_A

Free field or reverberant field environment for performing engineering grade measurements on small devices via single microphone or small array.



✦ TC_B

Smaller version of the TC_A, this chamber is especially suitable for single microphone tests.

Standard Model Test Chambers

Model	Frequency Range	Measurement Surface
F ₃ - 100	100 Hz to 10 kHz	3 Meter Radius
F ₃ - 250	250 Hz to 10 kHz	2 Meter Radius
F ₂ - 80	80 Hz to 10 kHz	3 Meter Radius
F ₂ - 100	100 Hz to 10 kHz	2 Meter Radius
F ₂ - 250	250 Hz to 10 kHz	1 Meter Radius
F ₁ - 250	250 Hz to 10 kHz	Other *
F ₁ - 315	315 Hz to 10 kHz	Other *
R ₂ - 100	250 Hz to 10 kHz	Other *
TC _A	250 Hz and above	1/2 Meter Radius
TC _B	500 Hz and above	Other *

* Especially useful for sound pressure level emission measurements.

Predictable Field Test Chambers

✦ F₁ - 250

Simple free field environment to provide cost effective isolation for survey grade measurements of noise emissions.



✦ F₁ - 315

A smaller version of the F₁ - 250, this chamber is useful for single microphone measurements as well as critical listening.