

New Acoustic Research Lab Open for Business

ETS-Lindgren has opened its new Acoustic Research Laboratory featuring state-of-the-art chambers for acoustic test services. With a hemi-anechoic chamber, two reverberation chambers, impedance tubes and supporting acoustical test equipment and software, the laboratory now offers product noise emission testing and structural/architectural acoustic testing. Acoustic field testing services are also available upon request. The laboratory is ISO-17025 accredited under the U.S. Department of Commerce NIST National Voluntary Laboratory Accreditation Program (NVLAP).

Product noise emission testing is commonly performed in the double-walled hemi-anechoic chamber designed to measure very low noise emissions from products and devices at frequencies of 80 Hz and above. Outside chamber dimensions are 8.5 m long \times 8.5 m wide \times 7 m high. This chamber is ideal for testing sound power and pressure levels of complete products well as product components. Products tested include information technology systems such as laptop computers and associated printers, home appliances, garden equipment – essentially any noise-emitting device. Commonly referenced standards for testing in this chamber include ISO 3744, ISO 3745, ISO 7779, ISO 11201, and ECMA 74.

Structural/architectural acoustical testing is performed in the reverberation chambers. Transmission loss tests of wall samples, windows, doors, or automobile panels, can determine how much sound energy is transmitted through a product sample

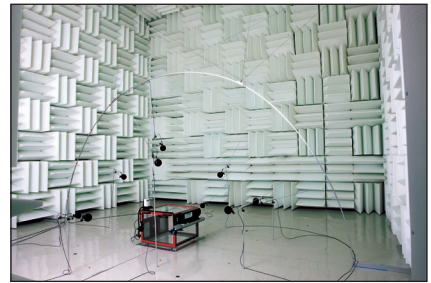
at specific frequencies. Sound absorption testing may also be performed in these chambers to determine how much sound energy is absorbed by products. Sound insulation products, fabrics, and wall absorbers for theaters are a few such products tested. The source chamber measures 7.4 m long \times 5.9 m wide \times 4.8 m high; the receive chamber measures 7.4 m long \times 9.2 m wide \times 6 m high. ASTM E90, ASTM C423, ASTM E596, and ISO 3741 are the most commonly referenced standards for testing in these chambers.

“We’re very excited about the acoustical testing services we can now offer our customers,” said Douglas Winker, Ph.D., acoustical engineer for ETS-Lindgren. “We designed these chambers for the best performance possible and worked closely with our facility personnel to ensure the parent building that houses these chambers enhances their performance.

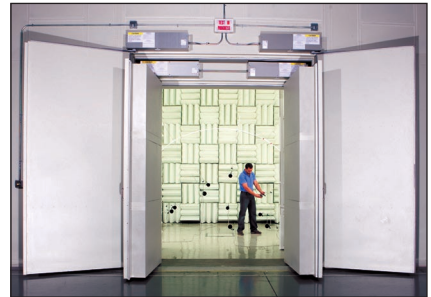
“For example, the hemi-anechoic inner chamber sits on a 50-ton isolated concrete slab,” Winkler adds. “The reverberation chambers sit on individual floating concrete slabs.

“With our NVLAP accreditation, customers can be confident that we have a total quality system in place with instrumentation traceable to NIST and experienced technicians who produce accurate measurement data.” For more information on acoustical testing services, please visit www.ets-lindgren.com/labservices.

In addition to the Acoustic Research Laboratory test services, ETS-Lindgren also offers its Acoustic Systems brand test



Hemi-anechoic test chamber at ETS-Lindgren Acoustic Research Laboratory.



Double access doors to the hemi-anechoic test chamber.

chambers www.ets-lindgren.com/acoustics. These acoustical chambers are manufactured by a veteran production team with more than 35 years experience controlling sound energy. Acoustical anechoic, predictable field and reverb/transmission loss solutions feature the same level of expertise and quality customers have come to expect from ETS-Lindgren’s EMC, microwave and wireless chambers.

Headquartered in Cedar Park, TX, ETS-Lindgren has manufacturing facilities in North America, Europe and Asia. The company is a wholly owned subsidiary of ESCO Technologies, a leading supplier of engineered products.