

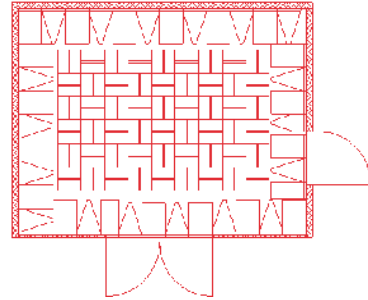
AR Anechoic Room



It is a room designed to absorb most of the noise because it has great sound absorbing power. It has the feature of reducing 6dB noise level when the distance is doubled in free space (like sound attenuation in distance).

$$SPL = PWL + 10 \log \left(\frac{1}{4\pi r^2} \right)$$

Floors, ceilings and walls are all soundproofed, but wires on the floor are connected both lengthwise and breadthwise to reduce the acoustic reflex. In addition, a soundproof revolving room, or door that opens inward is used as the entrance door.



■ Purpose and application

1. Identification of the noise level distribution of sound source
2. Measurement of PWL (acoustic power level) of sound source
3. Research of the acoustic properties of equipment, machines and parts
4. Sound-proofing feature
5. Acoustic facilities calibration

ER Reverberation Room



Because it has very little sound attenuation power, it is designed in a non-rectangular form to obtain diffuse sound fielded through acoustic reflex. In this room, almost the same level of sound is absorbed from anywhere around the room regardless of the distance from source of the sound.

$$SPL = PWL + 10 \log \left(\frac{4}{R} \right)$$

In some cases, two eco rooms are arranged to form an opening, and either construction material or a wall is attached to the opening for the transmission loss of sound. Sometimes, two eco rooms are stacked up to form an opening in between and the floor material is attached to test crashing sound.



■ Purpose and application

1. Transmission loss of construction material
2. Measurement and analysis of crashing sound on the floor
3. Measurement of sound absorbing coefficient