

Methods of Noise Control :

- Reflection, Refraction, Absorption & Transmission of the generated noise
- Acoustic Enclosures, Room Acoustic Treatment with customized design
- High noise reduction exhaust mufflers / silencers.
- Isolation using anti-vibration mounts & Flexible exhaust bellows

What to look for in an acoustic ?

1. Ease of operations and maintenance
 2. Ventilation for complete fuel combustion and skin cooling
 3. Quality of steel and hardware
 4. Right density and Quality of the sound absorbent material
 5. Powder coating of all the surfaces of the sheets and stainless steel hardware to avoid corrosion and ensure service life
3. Maintain optimum temp. differential



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Customer
Awareness
Series - Volume 9



EVERY™ NOISE.



NOISE CONTROL EQUIPMENT

Dear Customer,

We are pleased to come out with ninth volume of our Customer Awareness Series.

The operation of diesel genset is such that it creates noise. The sources of noise in a genset are air intake & exhaust system, mechanical dynamics, combustion noise and radiator fan turbulence. The total noise in case of a genset is a combination of all these noises and is in the range of 95-108 dB. In case of multiple sets in a powerhouse, the effect is slightly higher.

Noise in industrial and residential zone has been identified as health hazard by health organizations. Central Pollution Control Board is committed to enhance lives of people by controlling the noise pollution. We want to make our customers aware about noise pollution, its bad effects and the solutions to reduce noise pollution.

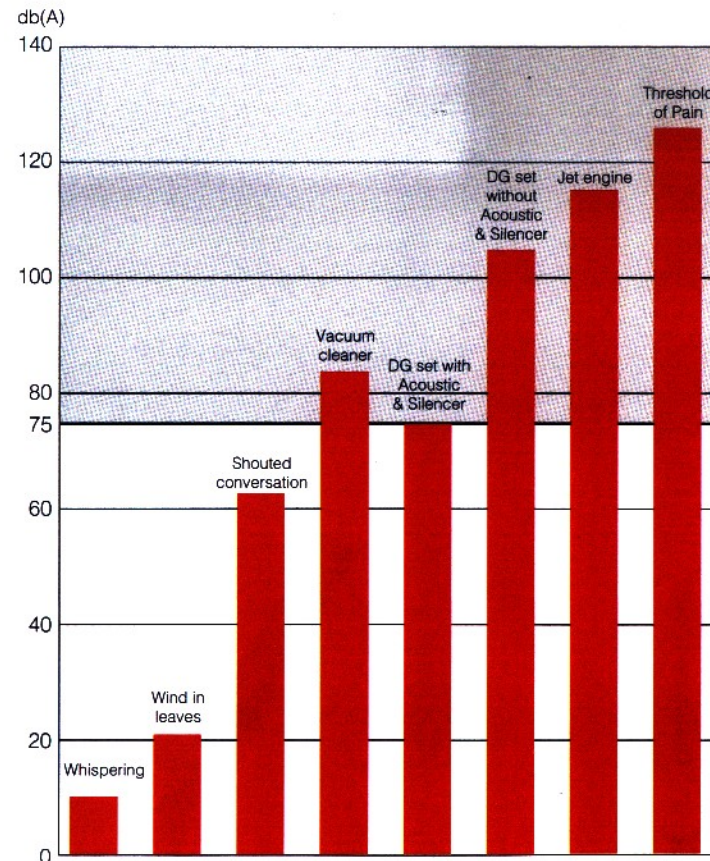
The noise pollution from generating sets can be controlled by acoustic treatment and use of silencers. This volume covers acoustic treatment and the next volume would cover silencers.

Regards,
Marketing &
Business Development

Acoustic Cell
(R&R)

What is noise ?

The word "noise" is derived from the Latin word "nausea," meaning seasickness. Noise is among the most pervasive pollutants today. Noise is now recognized as a "serious health hazard" - not merely a nuisance. Hearing damage begins at a much lower level, about 85 decibels. There is fairly consistent evidence that prolonged exposure to such noise levels can cause deafness.



The Human Resource Concern :

According to AIIMS -Head of ENT Dept.
(Source : TOI Delhi 29.1.1999)

- Permissible Noise levels in Industries range between 85 to 105 dB(A).
- Sustained exposure even for two hours daily to such high levels can lead to a temporary loss of hearing.
- Levels higher than 85 dB(A) can lead to intolerance, ringing noise in ears and may adversely affect those with heart or psychiatric condition.

The impacts of High Noise Level could be hearing loss, interference in concentration, increase in incidence of accidents, mental stress, irritability, palpitations, insomnia and importantly reduced work efficiency.

CPCB recommendations for control of noise pollution from diesel generator (DG) sets:

Mandatory acoustic enclosure/acoustic treatment of room for stationary DG sets (upto 1000 KVA).

The acoustic enclosure/acoustic treatment of the room should be designed for minimum 25 dB(A) Insertion Loss or for meeting the ambient noise standards, whichever is on the higher side. The measurement for Insertion Loss may be done at different points at 1 m from the acoustic enclosure/room and then averaged.

The DG set should also be provided with proper exhaust muffler with Insertion Loss of minimum 25 dB(A).