

category	consultancy
description	acoustic consultancy services



NBS information is available for most products, indicated by ^{NBS} after the product name
[Click here for our NBS products](#)



Sound Insulation Testing

The Building Regulations Approved Document E (ADE) introduced pre-completion sound insulation testing of dwellings and flats, to demonstrate compliance with Approved Document E.

To arrange a test, get a quotation or to discuss your requirements please [contact](#) Custom Audio Designs.

Sound Insulation Testing is available as a one-off or part of other services such as:

- preliminary advice – before works begin
- during works – advice and testing
- changes from a Robust Detail Build
- remedial advice and retesting.



Planning and Noise

Custom Audio Designs provides:

- on-site noise surveys.
- background noise surveys
- [BS 8233 noise control](#)
- [BS 4142 assessments](#)

What is BS 8233?

BS 8233:2014 Guidance on sound insulation and noise reduction for buildings

BS 8233 provides guidance for the control of noise in and around buildings. It applies to the design of new buildings, or refurbished buildings undergoing a change of use, but does not provide guidance on assessing the effects of changes in the external noise levels to occupants of an existing building.

BS 8233 draws on the results of research and experience to provide information on the design of buildings that have internal acoustic environments appropriate to their functions. It deals with control of noise from outside the building, noise from plant and services within it, and room acoustics for non-critical situations.

What is a BS4142 noise survey?

BS4142 is a British Standard that describes the procedures and methods for measuring and assessing noise to determine if it will cause noise complaints from neighbouring properties. Most local planning departments will ask for a BS4142 noise survey to be carried out when any noise making activity, or equipment, is going to be introduced close to where people live.

Please [contact](#) Custom Audio Designs to discuss your requirements.



Reverberation Time Measurements and Analysis to BS EN ISO 3382



It is essential for architects and building designers to ensure that the reverberation time of a space is suitable for the intended purpose.

Reverberation time is defined as the time required for a steady state sound pressure level in an enclosed space to decay by 60dB, measured from the moment the sound source is switched off.

We often get asked how to reduce the noise levels and echo in restaurants, offices, village halls, etc., so that speech can be heard more clearly without shouting, and we can measure, as well as predict, the reverberation time of a space. Measurement is a far more accurate way to be sure what is going on across the frequency spectrum in respect of the sound decay.

Our dodecahedron loudspeaker meets the following Standards:

- BS EN ISO 140-3 Annex C (Laboratory measurements)
- BS EN ISO 140-4 Annex A (Field measurements)
- BS EN ISO 3382 Annex A (Reverberation Time measurements).

New requirements contained in Building Bulletin 93 Acoustic Conditions in Schools and Approved Document E of the Building Regulations require the calculation of reverberation time to ensure stringent limits are met.

If you require further information about measuring or predicting reverberation time then please do not hesitate to contact us, either by [email](#) or phone 01730 269572.

Construction Noise

Construction projects are generally of limited duration but may still give rise to unacceptable noise, particularly if the works are close to residential properties or occur at night and weekends.

Custom Audio Designs can assist contractors and developers through the following services:

- Baseline noise surveys prior to works
- On site compliance monitoring, once works have commenced

Please [contact](#) Custom Audio Designs to discuss your requirements.



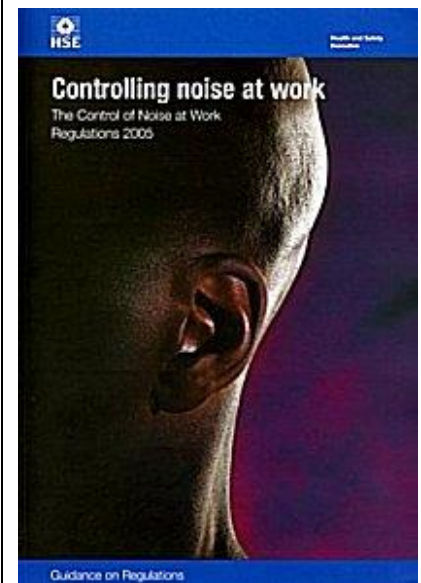
Noise at Work Assessments

New regulations require workplace noise to be monitored so as to prevent employees suffering hearing damage.

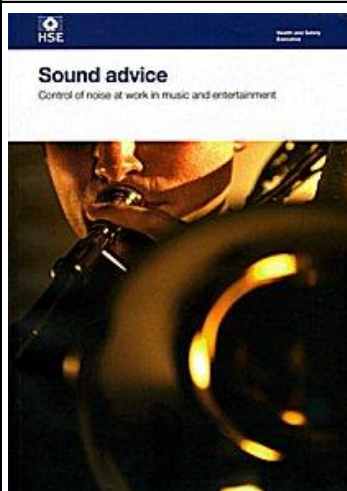
Custom Audio Designs can assist with workplace noise risk assessments and help identify problems and offer solutions.

Remember – the employer is responsible for making sure that none of their employees is exposed to sound levels that may cause potential health and hearing problems.

Please [contact](#) Custom Audio Designs to discuss your requirements.



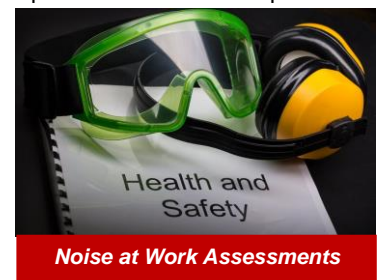
Noise at Work in the Music and Entertainment Industries



New regulations require workplace noise to be monitored so as to prevent employees suffering hearing damage.

Custom Audio Designs can assist with workplace noise risk assessments by measuring reverberation times for studios, band rooms, community halls and sports halls, etc., and providing acoustic calculations to aid in the quantity and placement of acoustic panels to improve the acoustics within performance spaces.

Please [contact](#) Custom Audio Designs to discuss your requirements.



Material Procurement

Acoustic and Noise Control Solutions

Brief our technical experts to work through the mountains of products on offer to select the right fit for your project.

Please [contact](#) Custom Audio Designs to discuss your requirements.



BS ISO 5130:2007 Measuring Vehicle Exhaust Noise for Track Racing Days

Track racing days require your car to pass specific exhaust noise limits. If you arrive on a track day your car will be tested and if it is too loud then you may not be allowed to race.

Custom Audio Designs can measure your exhaust noise emissions beforehand to BS ISO 5130:2007 using Professionally Calibrated Class 1 Test Equipment and provide you with an Acoustic Report beforehand. If your vehicle is too noisy at least that gives you time to make any necessary adjustments before arriving at the track only to be told you cannot race.

To arrange a test, get a quotation or to discuss your requirements please [contact](#) Custom Audio Designs.



Acoustic Camera Service



With this amazing new technology we can pinpoint acoustic weak spots in buildings, equipment, machinery and much more. Click [HERE](#) for more information.

Utilising an array of 225 microphones the acoustic camera can perform specific noise analysis and display a clear view of the spatial distribution of the sound field. It is possible to analyse and even listen to the sound in the selected direction in real time.

The system is ideal for spotting acoustically weak points in building structures and for pinpointing the main noise components in large scale machines or industrial plant.

This allows specific acoustic treatment to be designed for exactly the right spot at exactly the right frequency which, in many cases, gives a real cost saving.