

Protect your employees from noise-induced hearing loss and the result will be a healthier workforce and a more productive business. Follow this simple 4-step process to help you ensure every individual is offered the protection they need.

## The 4-step Guide to Hearing Conservation



### Step 1. Detection

When a noise survey is required, it must be carried out by a competent person such as a noise consultant.



### Step 2. Protection

Use the information gained during the survey to select HPE with the right level of attenuation.



### Step 3. Education and training

Not every member of your workforce will know all the benefits or understand how best to use their protection.



### Step 4. Validation

Every user is different, how do you make sure the workforce is adequately, individually protected? Ensure the correct validation system is used to give each employee their own personal attenuation rating (PAR), so they start to learn how to increase their protection levels by correctly fitting their ear protection.

## Decibel Scale dBA



**RNR\***  
**<85dB(A)**

You do not have to wear hearing protection, but make it available to your workers.



**85dB(A)**  
**– 93dB(A)**

You are above the permitted exposure level, hearing protection is compulsory.



**87dB(A)**  
**– 98dB(A)**

You are above the permitted exposure level, hearing protection is compulsory. Ideal for high frequency noise.



**94dB(A)**  
**– 105dB(A)**

You are above the permitted exposure level, hearing protection is compulsory. Ideal for high and medium frequency noise.



**95dB(A) – 110dB(A)**

You are above the permitted exposure level, hearing protection is compulsory. Ideal for all frequencies.



### SNR (Single Number Rating).

SNR is the number of potential decibels the hearing protection will reduce the noise level by, if fitted correctly.

The aim is to find a suitable product that brings noise level down to between 70 and 80 decibels. Over protection should also be avoided, as people may not be able to hear important every day sounds. SNR is only a general means of comparing different sound protection levels for different hearing protection.



Most safety helmets have a facility, usually an accessory slot at each side, to allow them to be fitted with ear defenders and other accessories. Also, many manufacturers offer helmet mounted ear defenders specifically for the purpose. Often the fitting points of the helmet and ear defenders are of a 'standard' size and style, but here a significant issue arises:

If you select a helmet and ear defenders from the same manufacturer, it is likely that they have been approved for use together. The manufacturer in question should make this clear in the product information. If, however, you select a helmet from one manufacturer, and helmet mounted ear defenders from another, they may well fit together, but unless you can see that they have been performance tested together there is nothing to show the ear defenders will provide protection!

One of the features determining the performance of ear defenders is the force produced by the spring arm. This is to maintain the seal of the cushion around your ear.

### Just because it fits, doesn't mean it works

There are many helmet manufacturers who produce ear defenders for use with their helmets. There are also many manufacturers that specialise in producing one or the other, and distributors will offer a range of both products to give you the best choice. If you select products from different sources, make sure you check that the ear ear defenders have been tested on the specific make and model of helmet with which you plan to use them. Manufacturers are well aware of the situation and many co-operate to have their products tested together, so that the customer can select the combination they prefer as the most appropriate. So, if you want to use an ear ear defender with a particular helmet, make sure they have been certified together. Remember, just because it fits, doesn't mean it works.

You may have selected the most suitable helmet for you or your workforce, and also the most appropriate ear defenders for the noise hazard, also taking into account weight, comfort, user acceptance, etc, but without testing for use in combination you cannot assume that the ear defenders will provide the expected protection.

Both the helmet and the ear defenders should be CE and UKCA marked. This mark shows that a product meets the necessary legal requirements however it does not tell you anything about its performance for any given application or task.

There are different ways to gain the CE and UKCA mark but the most common is to have a product certified using a harmonised European standard and for UKCA, the products need to have been certified by Notified and Approved bodies to the relevant UKCA standard. For helmet mounted ear defenders the standard is EN352-3, and it requires products to be tested together and manufacturers to specify the models of helmet tested with the ear defenders.