

# HEARING PROTECTION GUIDE

## HEALTH & SAFETY

### The Law

Employers are required to comply with the Control of Noise at Work Regulations 2005 which aim to ensure that employees' hearing is protected from excessive noise at their place of work.

The HSE guidance states that the hierarchy of control should begin with reducing noise through engineering means and other controls (e.g. segregation of activities). Where hazardous levels of noise remain present, Hearing Protective Equipment (HPE) may be used to further reduce exposure.

Where average noise levels are 80 decibels (dB) or above, an employer is required to assess the risk to employees, make hearing protection available and provide their employees with relevant information and training. 3M™ HPE which provides low attenuation is identified by green and yellow coloured symbols.

At 85dB and above the provision of suitable HPE is mandatory. When HPE is worn, employees must not be exposed to noise above 87dB. 3M™ HPE which provides medium-high attenuation is identified by red symbols. For more information visit [www.hse.gov.uk/noise](http://www.hse.gov.uk/noise)

### What to look for

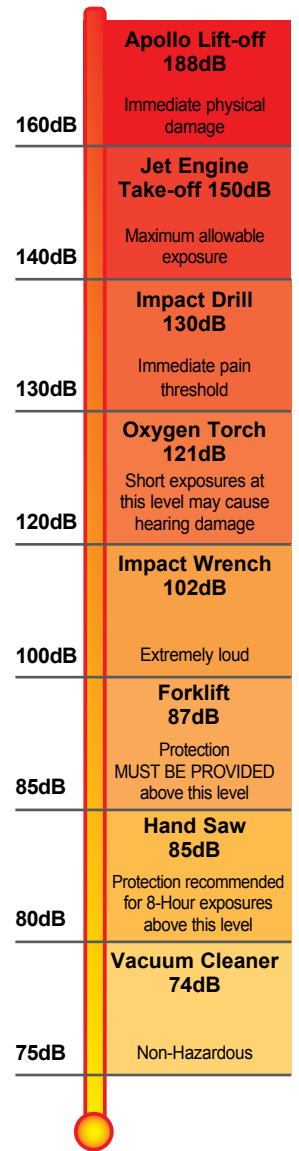
The attenuation table supplied with each hearing protector provides the assumed protection at different frequencies. They also feature H, M and L values which stand for High, Medium and Low and relate to how the equipment performs at high, medium and low frequencies. They will also have a Single Number Rating (SNR) which provides an indication of the performance averaged over the full frequency range.

The attenuation of HPE selected must be high enough to reduce exposure to noise to acceptable levels but not so high that the wearer becomes isolated and unable to communicate or hear warnings.

### Rule of Thumb

When it's necessary to raise your voice to have a conversation when 2m apart, the noise level is likely to be 85dB or above.

Noise Thermometer  
Sound Energy Doubles Every 3dB



## Safety Standards Symbols



### 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.

Target noise in the ear = 75dB to 80dB.  
Noise level = 100dB.  
SNR value of product = 25dB.  
In the ear noise = 75dB.  
Target met. 4

Identifying noise hazards and assessing noise levels in the workplace is the first step towards ensuring your workforce is protected.



< 85dB(A)  
You do not have to wear hearing protection, but make it available to your workers.



83 dB(A) - 93 dB(A)  
You are above the permitted exposure level, hearing protection is compulsory above 85 dB(A).



87 dB(A) - 98 dB(A)  
You are above the permitted exposure level, hearing protection is compulsory. Ideal for high frequency noise.



94 dB(A) - 105 dB(A)  
You are above the permitted exposure level hearing protection is compulsory. Ideal for high and medium frequency noise.



95 dB(A) - 110 dB(A)  
You are above the permitted exposure level, hearing protection is compulsory. Ideal for all frequencies.

### Assess your needs

The HSE website contains good information on assessing risk. See [www.hse.gov.uk/noise/risks.htm](http://www.hse.gov.uk/noise/risks.htm). When a noise survey is required, it must be carried out by a competent person such as a noise consultant or specialist. In-house measurement may be undertaken by appropriately trained and experienced staff using the 3M range of reliable sound level meters and associated software.

