GUARDSMAN
Your Partner in Safety

Hearing Protection Buying Guide

HSE Control of Noise at Work Regulations

The Control of Noise at Work Regulations 2005 came into force for all industry sectors in Great Britain on 6th April 2006 (except for the music and entertainment sectors where they came into force on 6th April 2008). The aim of the Noise Regulations is to ensure that employees hearing is protected from excessive noise at their place of work, which could cause them to lose their hearing and/or to suffer from tinnitus (permanent ringing in the ears).

The level at which employers must provide hearing protection is now 85 decibels (daily or weekly average exposure) and the level at which employers must assess the risk to workers' health and provide them information and training is now 80 decibels.

There is also an exposure limited value of 87 decibels, taking account of any reductions in exposures provided by hearing protection, above which workers must not be exposed.

HML

HML is High, Medium and Low and is literally how the protector performs at high medium and low frequencies. The values (attenuation level) of each will be found on the packaging of the hearing product you purchase. A SNR of 30 will not necessarily give a 30 decibel attenuation at all frequencies.

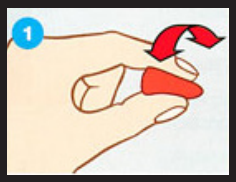
Rule of Thumb

When it is necessary to shout in order to be heard three feet away, the noise levels may be 85 decibels or more. Hearing protection must be made available to employees where sound levels are at or above 80 decibels and strictly enforced where the sounds levels reach or exceed 85 decibels.

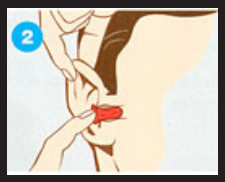
Foam Ear Plugs

Made from expandable slow recovery foam that helps provide the best combination of comfort and protection for most users. Typically foam plugs are rolled down prior to insertion where the foam plug expands to provide a snug and secure comfortable fit.

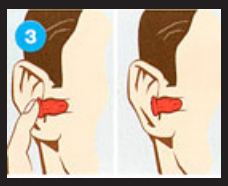
Fitting earplugs correctly



With clean hands, roll the entire earplug into the narrowest possible crease-free cylinder.



Reach over your head with a free hand, pull your ear up and back, and insert the earplug well inside your ear canal



Hold for 30-40 seconds, until the earplug fully expands in your ear canal. If properly fitted, the end of the earplug should not be visible to someone looking at you from the front

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

Sound Levels / Noise Meters

Part of your risk assessment should involve understanding the level of noise within your work environment. Sound measuring systems can be used to help employers/employees select the appropriate type of hearing protective equipment for use in areas of the workplace. The fitting of hearing protection products is just as important as establishing the total noise level.

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Dispensers

An ideal solution for where hearing protection is required all the time at a fixed location within the workplace.

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Made from expandable slow recovery foam that helps provide the best combination of comfort and protection for most users. Typically foam plugs are rolled down prior to insertion where the foam plug expands to provide a snug and secure comfortable fit. Generally seen as a disposable product.

Moulded Ear Plugs

Made from flexible materials that are preformed to fit the ear canal. These reusable ear plugs are comfortable, hygienic and economical. Hygienic carrying case made available with some products.

Detectable Ear Plugs

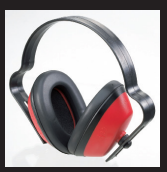
Available to buy in either a foam or a moulded finish. The ear plug is fitted with a choice of detectable components (steel ball bearing or a non-ferrous filter) finished with a visible non-food blue detectable cord. Hygienic carrying case made available with some products.

Banded Semi-Aural Ear Plugs

Can be finished in either a foam or moulded tip. Ideal for intermittent use as they are quick to put on and take off as well as being easy to store around the neck. They provide less protection than either plugs or ear muffs and are not usually recommended for continuous long-term wearing.

Ear Muffs

Ear muffs have rigid cups with soft plastic cushions that seal around the ears to block out noise. The cushions are foam filled which are seen to be lightweight and durable.



Noise Level Scale

	Apollo Lift-off 188db Immediate physical damage
160db	
	Jet Engine Take-off 150db Maximum allowable exposure
140db	
	Impact Drill 130db Immediate pain threshold
130db	
	Oxygen Torch 121db Short exposures at this level my cause hearing damage
120db	
	Impact Wrench 102db Extremely Loud
100db	
	Forklift 87db Protection MUST BE PROVIDED above this level
85db	
	Hand Saw 85db Protection recommended for 8 hour exposures above this level
80db	
	Vacuum Cleaner 74db Non-Hazardous
75db	