



Noise

Minimum requirements for the protection of workers from risks to their health and safety arising or likely to arise from exposure to noise and in particular the risk to hearing.

This includes mainly for our sector:

- noisy powered tools or machinery;
- explosive sources such as cartridge operated tools or detonators;
- noise from impacts such as hammering, drop forging, pneumatic impact tools etc)

Why is dealing with noise important?

- Noise at work can cause hearing loss that can be temporary or permanent.
- Hearing loss is usually gradual because of prolonged exposure to noise.
- Hearing loss is not the only problem. People may develop tinnitus (ringing, whistling, buzzing or humming in the ears), a distressing condition which can lead to disturbed sleep.





What do Employers have to do?

In the workplace, the noise exposure limit values, which must not be exceeded, principally pertains to a daily or weekly exposure of 87 decibels (dB) and 140 dB (C) of peak sound pressure (p_{peak}), the maximum value of the 'C'-frequency weighted instantaneous noise pressure, taking into account any attenuation from hearing protection. The exposure action values, the decibel levels at which an employer must take certain actions, are set at a daily or weekly exposure of 80 dB (lower value) and 85 dB (upper value). Concerning the peak sound pressure, the values are 137 dB (C) and 135 dB (C) respectively.

Concerning the peak sound pressure (p_{peak}), the maximum value of the sound pressure, the values are which an employer must,

The employer has a responsibility to assess and, if necessary, measure the levels of noise to which workers are exposed, giving particular attention to:

- level, type and duration, including impulsive noise,
- the exposure limit value and the exposure action values,
- effects on workers from particular risk groups,
- effects from interactions between noise and work-related substances toxic to the ear, vibrations or warning signals and other safety-related sounds,
- manufacturers' information on noise emission,
- alternative equipment that could reduce noise,
- noise beyond normal working hours,
- information from health surveillance, and
- availability of hearing protectors.





EXAMPLES

National Examples (non exhaustive list):



- The Health and Safety Executive UK (HSE) has set guidance documents and noise calculator on its website (www.hse.gov.uk/noise/index.htm).



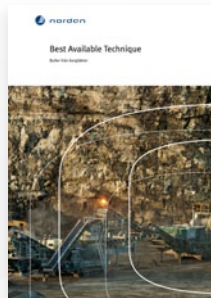
- The Quarry and Mining Spanish Administration with the Spanish Aggregates Association ANEFA produced a clear and simple guidance document as reference for companies.

→ [Link to the pdf](#)



- The Irish Health and Safety Authority has set Guidelines on Hearing Checks and Audiometry Under the Safety, Health and Welfare at Work.

→ [Link to the pdf](#)



→ [Link to the pdf](#)

- The German National Health Insurance, Berufsgenossenschaft Rohstoffe und chemische Industrie (BGRCI) has a dedicated page and guideline.

→ [Link to the pdf](#)



- On behalf of the Nordic Council of Ministers, ÅF's experts in noise and vibration have evaluated best available techniques (BAT Best Available Technique) regarding noise from quarries. The purpose is to show how noise diffusion can vary from a rock depending on the choice of machine equipment and application of the best possible technology.

Company Examples (non exhaustive list):

As far as possible the risk factors must be removed at source or reduced to a minimum, taking into account:

- working methods with less exposure,
- appropriate equipment,
- workplace design,
- training, consultation and participation of the workers,

- use of shields, enclosures, sound-absorbent coverings, dampening and isolation,
- workplace and equipment maintenance, and
- organisation of work, schedules and rest periods.



LA UEPG DE UN VISTAZO

La Industria de los Andos está integrada por
15.000
EMPRESAS en su mayoría PYME ...

... que gestionan
25.000
CANTERAS Y GRAVERAS en Europa, ...

... empleando
230.000
TRABAJADORES directos e indirectos ...

... representando una cifra de negocio de más de
15.000
MILLONES de EUROS.

La demanda europea de áridos es de
2.700
MILLONES DE TONELADAS ANUALES, ...

... y cada ciudadano europeo consume
5,2
TONELADAS PER CAPITA CADA AÑO.

Workplaces exceeding the exposure action values should be marked appropriately, and have restricted access. The employer must make individual hearing protectors available to workers. The use of hearing protectors is mandatory where the noise level is above the upper action value.

Where hearing damage is diagnosed, a doctor will assess whether it is likely to be the result of exposure to noise at work. If this is the case the employers has the responsibility to:

- inform the worker
- review the risk assessment and measures to reduce risks,
- take into account medical advice, including the possibility of re-assigning the worker, and
- continue surveillance and review the health of any worker similarly exposed.



Find out more

Directive 2002/44/EC: eur-lex.europa.eu - Document 02002L0044-20081211

EU-OSHA : osha.europa.eu/en/legislation/directives/19

HSE: [vibration website](#) (including Guidance and Calculator)

The Guidelines for the application of Directive 2000/14/EC of the European Parliament and of the Council of 8 May 2000 on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors was updated in June 2017. [Link](#).

ADCO Guide for machinery manufacturers to declare noise emission in the instruction manual according to the requirements of the Machinery Directive 2006/42/EC (MD) and Outdoor Noise Directive 2000/14/EC. [Link](#).

The EU law

Directive 2002/44/EC – Minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (vibration). The Directive aims at ensuring health and safety of each worker and at creating a minimum basis of protection for all Community workers by timely detection of adverse health effects arising or likely to arise from exposure to mechanical vibration, especially musculo-skeletal disorders.

