The performance of the hearing protector (its attenuation level) must be adapted to the risk assessment of the workplace.
It should bring the noise level to a level that is not harmful to health, while avoiding over-protection which would cut the operator from his environment (warnings, communication, etc).

Requirements Directive 2003/10/EC: Minimum requirements for the protection of workers against the risks related to noise exposure		
8 hours exposure time at or above 85dB	8 hours exposure time at or above 80dB	8 hours exposure time between 75 dB and 80 dB
Obligatory hearing protection	Hearing protectors available to the worker	Hearing protection recommended

How To Protect Yourself?

4 Steps To Choose The Appropriate Hearing Protection.

1. Identify the nature of the noise: stable, fluctuating, intermittent or pulse.
2. Measure the noise at the working station: intensity (dB) and volume (Hz).
3. Determine the exposure time.
4. Calculate the required reduction to return to a background level acceptable (see Directive 2003/10 / EC).

EN 352-1: 2002
Hearing Protectors - Ear Muffs

EN 352-2: 2002
Hearing Protectors - Ear Plugs

EN 352-3: 2002
Hearing Protectors - Helmet Mounted Ear Muffs

EN 352-4: 2002
Hearing Protectors - Level Dependent Ear Muffs

EN 352-8: 2002
Earmuffs with Entertainment Radio

All these standards establish requirements with regards to the manufacture, design, performances and test methods.

- **SNR (Simplified Noise Reduction):**
Single average value of attenuation.

HML : Attenuation values expressed in terms of average levels of frequencies:
H : Attenuation of PPE at high frequencies (pitched noises).
M : Attenuation of PPE at medium frequencies.
L : Attenuation of PPE at low frequencies (bass sounds).

ANSI (US American National Standards Institute)S3.19 - 1974
This standard specifies the test method for determining the level of noise attenuation (NRR Noise Reduction Rating) of the hearing protection, as recommended by the EPA (U.S. Environmental Protection Agency).

UNDERSTANDING JUST HOW LOUD SOUNDS ARE

The **"VOLUME"** of a sound is measured in decibels (dB) - but this isn't a straight scale. A **10dB** increase is a DOUBLING of the VOLUME.
85dB is considered the maximum safe noise level of work.

Do You Value Your Hearing?