



HOW TO AVOID OVERPROTECTION BY CHOOSING THE RIGHT HEARING PROTECTION

The global hearing protection market should grow from \$2.8 billion in 2020 to over \$3.7 billion by 2025 at a compound annual growth rate (CAGR) of 6.2% during the period of 2020-2025,” states BBC Research in a report published on their website.

This means hundreds of new earmuffs and earplug models will flood the market, making the quest for the optimal hearing-related personal protective equipment (PPE) even more difficult. Especially since workers complain that hearing protection devices (HPDs) are plain uncomfortable or interfere with other protective equipment like hard hats, face shields and respirators.

So, what is the ideal hearing protection for workers? Honeywell’s hearing experts unanimously agree that hearing protection safety should provide optimal protection, proper fit and comfort and, most of all, must be worn at all times when exposed to exceeding noise levels.

More specifically, here is what you need to consider when choosing the right hearing protection tools for your workers and working environment.

MEASURE NOISE LEVELS

To determine the level of hearing protection, first you need to accurately measure the level of noise inside your facility. This helps to determine the level of attenuation required to adhere to current EU-OSHA regulations.

Currently, EU-OSHA’s noise standard (29 CFR 1910.95) requires employees to implement a hearing conservation program if workers are exposed to time-weighted average noise level of 85 decibels over an eight-hour shift.

Most manufacturers have created charts showing protection levels for their products. In Europe, HPDs carry a label with a signal-to-noise reduction rating (SNR) level that indicates the level of hearing protection. The SNR is calculated by subtracting the 85dB from the noise level. For instance, the noise made by an industrial fire alarm is 110dB. To go from 110dB to below 85dB you need an earmuff with an attenuation of at least 25dB. Hearing protection ratings can increase to a maximum of 33dB for earplugs and 31dB for earmuffs.

IS THERE AN HPD THAT BLOCKS SOUND 100%?

Yes, but is that safe? Workers who can’t hear the warning signal of a truck or piece of heavy equipment coming their way may be in danger. Workers who can’t hear and thus, cannot communicate effectively with peers, are also more likely to make mistakes and tend to feel more isolated on the job.

Overprotection is a very real problem. So, simply going for the HPD with the highest SNR is not an option.

DETECTABILITY

In certain industries, such as food and beverage production, contamination with foreign objects is a big problem. As such, hearing protection needs to be easy to spot through visual detection equipment and thermal imaging cameras and sensors. One solution is to choose earplugs with attached cords to keep them from falling off in the first place. The second is to wear detectable safety earplugs in contrasting colors to help with the visual inspection. Lastly, you can opt for earplugs that include fixed metal grommets that can be easily identified by metal-detecting sensors.

ELECTRIC CONDUCTIBILITY

Oftentimes, people working with electricity, utilities or in mining operations are forbidden to wear PPE with metallic elements. Metal conducts electricity, exposing workers to electrical hazards. To mitigate this risk, workers should opt for single-use, multiple-use, banded earplugs or dielectric earmuffs.

NEW TECHNOLOGIES

Do workers need hearing protection with Bluetooth™ and radio to communicate or simply listen to music? Studies show that ear protection with integrated stereo sound can render workers more productive and motivated on the job.

Hence, new sound technologies embedded in connected earmuffs amplify important bass sounds such as alarms and warning signals from co-workers, while reducing unwanted and dangerous noises.