HEARING PROTECTORS SELECTION DIAGRAM

Risk factors

Hearing protectors serve to protect the hearing against excessive exposure to noise or high volume sound.
The risk of hearing damage is determined by two variables:

- the number of dB's – the higher this number, the greater the risk;
- the duration of the exposure – the longer the exposure, the greater the risk.

The risk of hearing damage starts from eight hours' exposure (per twenty-four hours) to 80 dB(A). An increase of 3 dB means the noise level doubles. People who do not want to risk damaging their hearing should limit the length of exposure proportionately. This means no more than four hours at 83 dB(A).

Excessive protection

When making a selection, it is also important to avoid excessive protection (attenuation).
Excessive attenuation leads to:

- a feeling of isolation – which can make people less alert to the surrounding sounds they should perceive, such as warning signals;
- regular removal of the protection (to be able to hear something), which dramatically reduces the effectiveness of the hearing protector.

Minimum inconvenience

The hearing protector should cause the wearer as little inconvenience as possible. The less inconvenience it causes, the "more easily" people will tend to actually wear the hearing protector and the greater the chance of preventing hearing impairment. Inconvenience can be caused by two factors:

- Wearing comfort
- Perception

It is generally known that custom-made hearing protectors offer the best wearing comfort. But apart from wearing comfort, perception can also be important. The EXINORE programme offers special filters for people who still want to be able to appreciate the music or hear other sounds such as speech well.

Use of the selection diagram

Always do this in consultation with the user / customer.

1. How many dB?

To be able to determine the right filter (attenuation value) correctly, you need to know (measure) the noise level.
If this is not available or possible, make as good an estimate as possible, based on the following:
"If you want to conduct a conversation with someone standing about 1 metre away (arm's length)" and:
a. you have to raise your voice / speak loudly, the noise level is 80 dB or more;
b. you have to shout, then the noise level is about 87 dB or more;
c. conversation is impossible, the noise level is then approx. 95 dB or more.

- **Make an estimate - in consultation with the user - of the number of dBs.**

You will find a number of possible filters that could be considered set out horizontally in the diagram.

2. Perception

After that, you need to determine the desired “perception” of the sound (or noise).
The more to the left the filter is in the diagram, the better the perception.

3. Length of exposure

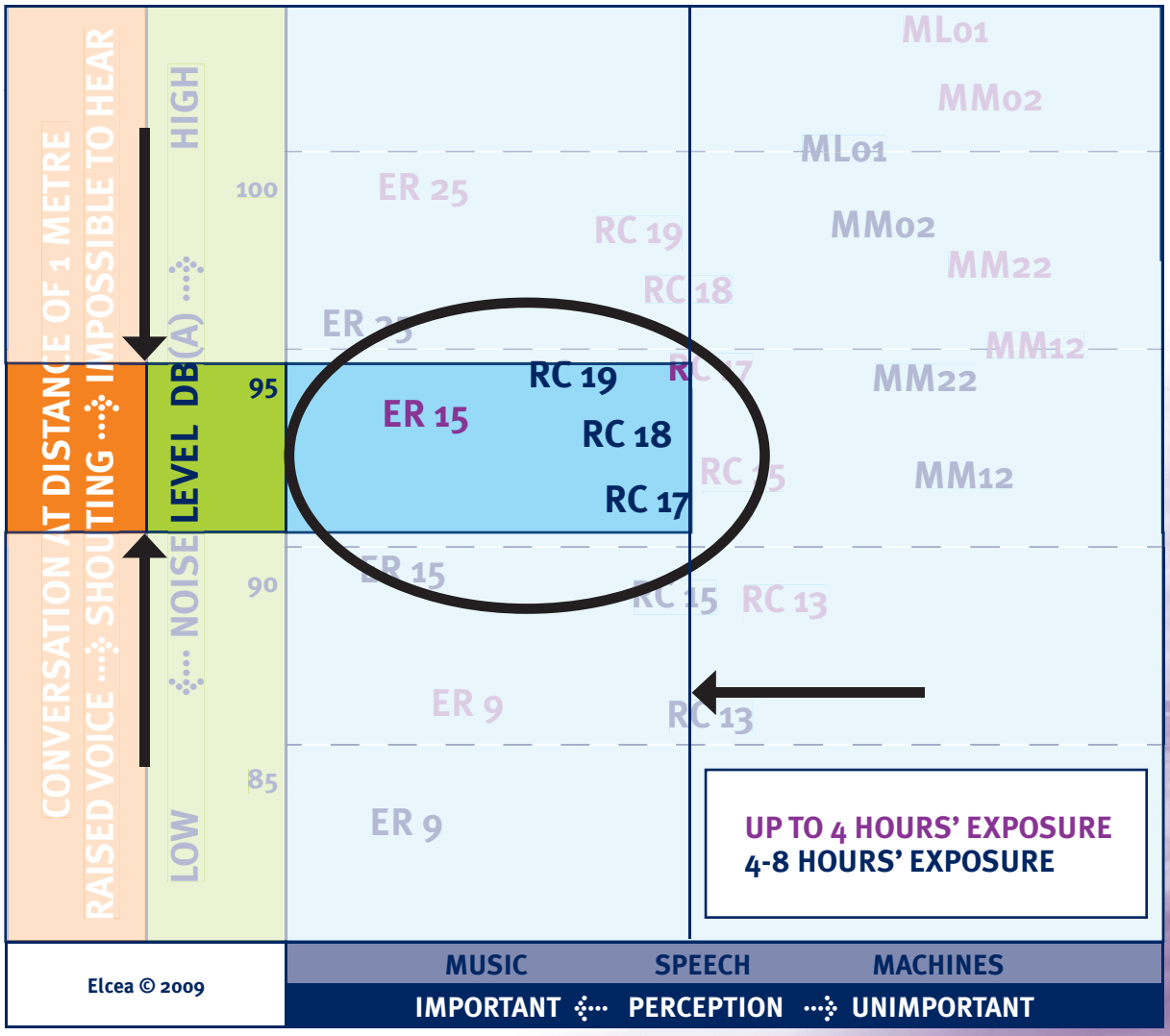
Determine the length of exposure. If the person is exposed to noise for a large part of the day (four to eight hours), one of the filters printed in blue should be chosen. If the length of exposure is “a few hours a day” (up to four hours), one of the filters printed in purple can be chosen. The ‘higher’ the filter is in the diagram, the more attenuation the filter offers.

4. Choice of filter

Following these steps will narrow the choice down to an area in the selection diagram containing one or more filters. Make the “most sensible” choice from these options.

5. Choice of hearing protector

Under the diagram you will see which type of hearing protector matches the chosen filter.



ER 9, ER 15, ER 25:	EXINORE ER
RC 13, RC 15, RC 17, RC 18, RC 19:	EXINORE Q-SOUND / SAFESOUND
MM02:	EXINORE SAFESOUND
MM12, MM22, MM02, ML01:	EXINORE COMPACT
ML01:	EXINORE BIOPACT / SLEEPFIT