“BUY QUIET”

Advice for buyers of machinery

Edition 2018

- This leaflet helps you buy or hire lower noise machinery and meet your legal duties.
- Noise has hidden costs and harms workers.
- It is likely that you have a choice between noisier and quieter models of machinery. The only way to know is to have a “Buy Quiet” policy.
- Why buy a noise problem when you could buy quieter machinery?
- If you and your industry ask for quiet machinery – “Buy Quiet” – suppliers will see a commercial advantage to making lower noise machinery. And if your suppliers market quiet machinery – “Sell Quiet” – the cost and effort to manage noise risk in your company will reduce.
- ALWAYS consider noise before buying or hiring new machinery.

Why should I Buy Quiet?

Noise is bad for health. It causes hearing damage and deafness, stress, poor productivity, and interferes with communication. Inability to hear causes workplace accidents and deaths.

Your company is legally responsible for managing risks from noise for its employees - the quieter the machinery you buy for your company, the easier this will be.

Buying Quiet:

- Reduces the costs of managing noise risks.
- Increases productivity and reduces the number of sick days.
- Reduces the need to buy and manage health surveillance, noise control, hearing protection.
- Reduces compensation costs and insurance premiums (depending on country).

What noise information should I obtain before buying or hiring machinery?

Where manufacturers have been unable to eliminate noise risk, they must:

- Provide noise emission data in their sales literature and instruction manuals:
  - Noise emission values provided should be for the noisiest typical operation.
    - Manufacturers may be able to provide noise emission data for other common applications.
- Tell you how to use their equipment without risk from noise:
  - What noise control options are available and appropriate for your operation.
  - How to install and assemble the machinery so that noise risk is minimised.
  - What special training in noise control is required for users.
  - The need for hearing protection.

Choose a manufacturer or supplier who will help you to avoid noise problems. Employers must manage the noise risk in their workplaces, but careful use of manufacturers' information can make this easier.

Noise emission data provided by manufacturers are composed of:

- Emission sound pressure level at the workstation. This is a measure of the noise produced only by the machine at a specific position, with workroom reflections removed. Values above 70 dB(A) indicate that there may be a noise risk. The emission sound pressure level can be used in your risk assessment, but the effect of reflected noise in the workroom and the noise from other machines must be added.
- Sound power level. This is a measure of the overall noise produced by the machine. It can be used by you (or an acoustic consultant) to predict sound pressure levels at worker or other specific positions from the machines in a workroom, to help with your risk assessment. The sound power level must be provided for machinery designed to be used outdoors and for all machinery whose emission sound pressure level exceeds 80 dB(A).

Both emission sound pressure level and sound power level can be used to compare machinery from competing manufacturers on the basis of noise.

Important note: Noise emission data can only be compared if they have been determined according to the same noise test code. You must check in the instructions, or possibly the sales literature, the reference to the standard for the noise test code used. Check that what you are going to compare is comparable.

How do I make "Buy Quiet" part of my noise control strategy?

A machine with a lower emission sound pressure level and a lower sound power level is likely to be a quieter machine and should be given preference when buying or hiring machinery.

Make sure you have:

- A list of suitable machinery and their suppliers.
- Noise emission data from sales literature or manuals from potential suppliers.
- The operating conditions most likely to be used.
- The positions where operators are most likely to spend their time.

Before you make your final selection, check with your supplier:

- That the operating conditions during the noise tests are similar to the operating conditions you intend to use; if not, ask if the noise will be higher or lower.
- That the emission sound pressure levels are given for workstations actually occupied.
- The noise control options available and their guaranteed performance.
- That the noise emission values are reliable and will be guaranteed in the purchase contract.

Check your specification is met when the machinery is delivered. You may want to include a penalty clause in your contract if the guaranteed noise emission values are exceeded. If you suspect the manufacturer's noise data are poor, report this to your market surveillance authority.

Further reading

National guidance on occupational noise and how to design low-noise workplaces.

ADCO NOMAD Guide for manufacturers, Edition 2016, https://www.baua.de/EN/Service/Publications/Report/NOMAD-Guide.html

Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast).

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.