Working Quietly

A lot of the noise which you are exposed to in your trade can be reduced by "working quietly". Just what is "working quietly"? It really means looking at the task you are about to do, thinking about the noise you will make and asking these basic questions.

1. Is there a quieter method of doing this job?
2. Is there a way of damping down the amount of noise I have to make?
3. Can I separate my noise so other people aren’t exposed to it?

Use Quieter Methods

**Impact or Pressure**

Using impacts (short, sharp bursts of energy, e.g., a hammer) to do a job can be very effective, but noisy. Sharp impacts cause high peak noise levels, which can sometimes cause instant permanent hearing loss. Sometimes, using a steady pressure can bring the same result, with a lot less noise.

- Bend metal in a press or a vice instead of hammering
- Screw type fittings are usually quieter to insert than nails.

**Choose Quieter Tools or Machines**

Ideally, your workplace should have noise level information (either from the manufacturers or from measurements done in the workplace) for each noisy piece of plant. Using this, you can select the quietest plant for the job.

- An electric power tool may be quieter than a pneumatic one
- Choose a silenced compressor or power pack.

Reduce Noisy Work

The risk of noise deafness depends on both the noise level and the time you are exposed, so choose methods which reduce the amount of time spent on noisy work.

- More accurate cutting, bending, welding and fixing means less need for noisy corrective work in hammering and grinding
- If two machines produce roughly the same noise, use the faster one.

Reduce Noise Output

**Reduce Impact Velocity**

Impact noise can be reduced by lowering the velocity of impact.

- Lower materials slowly to the ground or floor, using the proper manual handling techniques
- Reduce the fall height of objects such as tools, offcuts etc. by using a bench, breaking the fall of the object or working close to the ground.

Spread impacts over a longer time. By spreading the impact over a slightly longer time, it is possible to do the same work with less noise.

- Use a "dead blow" hammer (filled with lead shot) or a soft face hammer
- Place a wood block between the hammer and work piece.

Cushion Impacts

- Many impact noises need never occur

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• Use rubber floor mats to cushion noise of falling or rolling objects
• Treat work benches
• Line scrap bins with rubber
• Use rubber buffers on truck trays, bin lids, gates etc..

Reduce Working Forces
Sometimes the system provides more "grunt" than you need.
• Reduce compressed air line pressure (using a regulator) to the minimum needed for the task, when using nail guns, air hammers, etc
• Avoid overloading machinery so that it "screams".

Damp the Noise Radiation
The "ringing" resonance of materials which have been impacted can be reduced by damping the vibration, in the same way as you can damp the ringing of a wine glass by putting your hand on it. The brochure on Building Quiet gives information on damping.
• Lay rubber blankets or sand-filled bags on the vibrating work piece
• Use materials which radiate less noise than sheet metal, e.g., steel mesh, plastic for scrap bins, guards etc.

Separate the Noise from the People
Increase "Distance"
Even if you have to be exposed to your own noise, others in a workplace can avoid unnecessary noise if you are careful where you position your plant.
• Try not to work in a corner, or an "echo-y" area, as this increases noise
• Work further away from others, even outside use mobile screens or work behind partitions
• Locate your compressor or power pack further away, outside or behind a screen.

Control Access to Noise Areas
There are some simple ways of preventing people being in areas where noise is occurring.
• Restrict access to noisy areas by cordoning off and/or warning signs, in consultation with the relevant persons on site
• Arrange to carry out very noisy tasks at times when other employees are not at the workplace.

Summary
The ideal is to eliminate or reduce noise at the source, by using a quieter method for doing the task, or using a quieter machine. So the ideas at the top of the list in this brochure should take priority over the lower ones.

Instead of you having to think of these points every time you do a job, work through the most useful ideas in consultation with others in your workplace to come up with a set of procedures for Working Quiet.