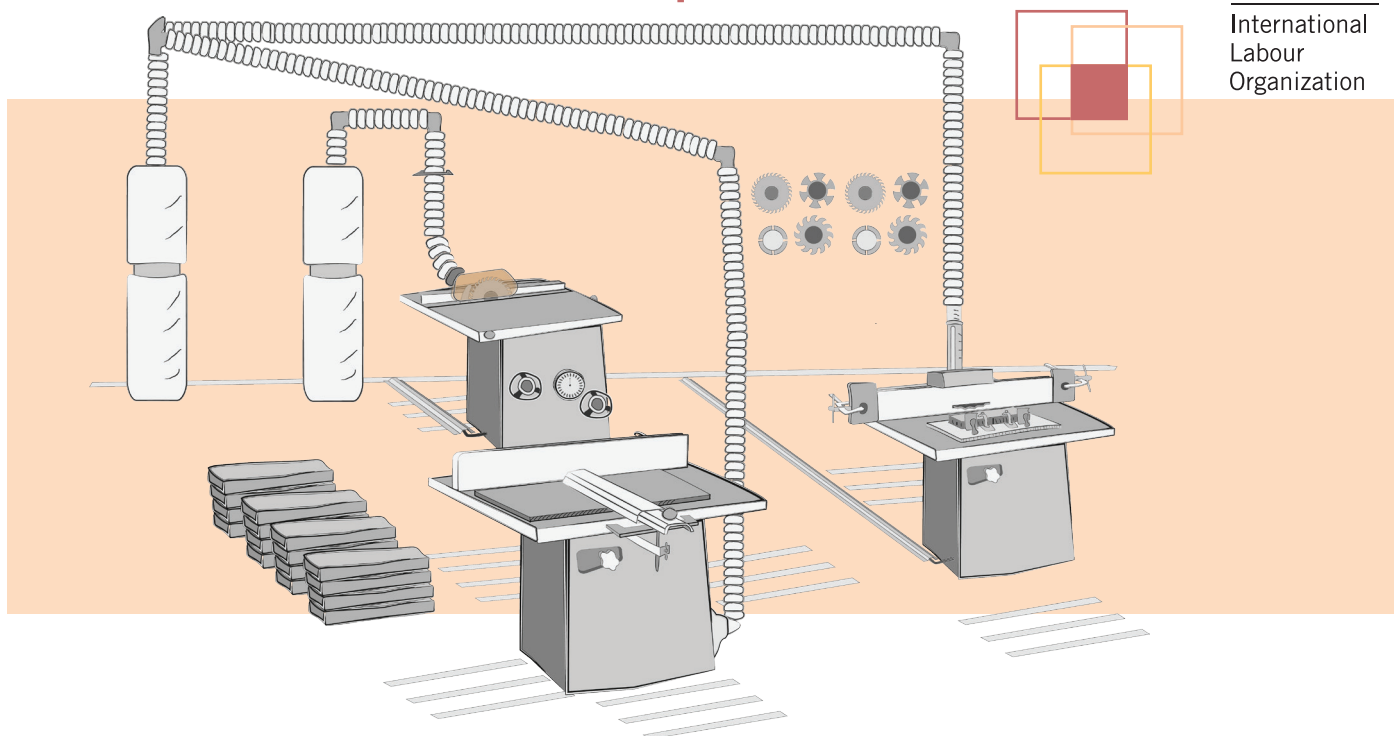


SAFETY & HEALTH

at the wood workshop



International
Labour
Organization



There are different types of wood workshops depending on the activities that are carried out in them, ranging from carving to carpentry. In all of them though there are hazards that can lead to very serious injuries, diseases and even death. Did you know that the woodworking sector has one of the highest accident rates in the manufacturing industry and you could also be at risk?

Contact with cutters and blades causes most accidents, but slips and trips, dust and noise are also common hazards that cause accidents and ill health.

This information sheet explains what you can do in certain instances to reduce the chances of suffering from occupational accidents and diseases. Remember though, that there are many other hazards that you are exposed to other than the ones that we cover here, and additional precautions may be required in certain situations, for instance pregnancy. So before you start any task, stop and ask yourself:

1. How will I do the work?
2. Do I know enough to remain safe and healthy?

Let's look at some precautions when working with certain hazards.

Please also contact your local labour inspectorate or occupational safety and health authority to help you understand the hazards and what precautions to take.

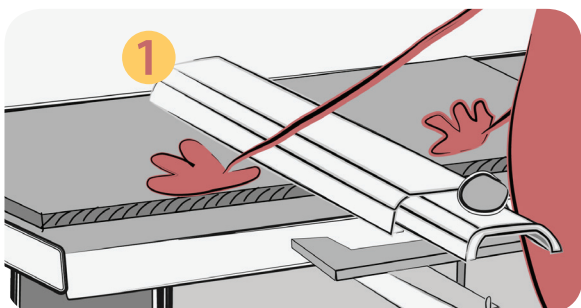
Working with MACHINES

Most woodworking accidents occur on 3 machines: surface planers, circular saw benches and vertical spindle moulders. If the machines are not guarded properly you may contact the dangerous parts and suffer a severe injury, sometimes losing fingers or upper limbs.

Blades and cutters continue to rotate when the machines have been turned off. The risk of touching a moving blade/cutter is reduced if the machine is guarded and fitted with a brake which will stop the cutter within a short time, ideally 10 seconds.

All workers operating woodworking machines must be properly trained, know the hazards and how to operate the machines safely.

Surface Planer

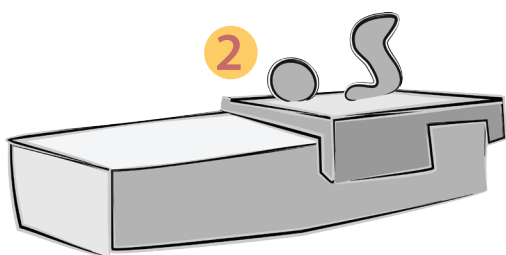


Ensure that it has a robust bridge guard **1** that covers the whole cutter block. It must be easily adjustable, i.e. without the need for a tool.

To prevent accidental contact with the cutter block.

Adjust the guards as close as possible to the work piece.

To reduce the extent of the exposed cutter block and the chance of touching it.



Use a push block **2** when working on small pieces of wood.

To keep your hands away from the cutter block.



Use a push stick if needed.

To keep your hands at a safe distance.

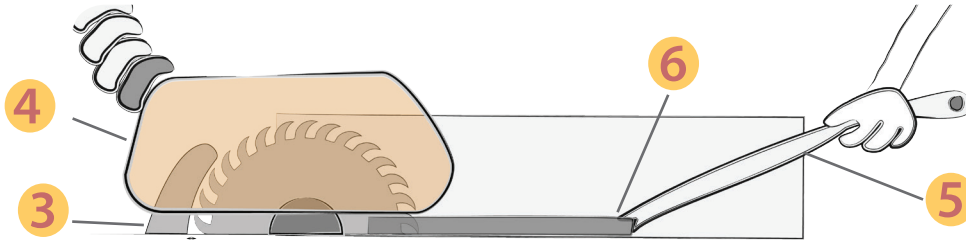
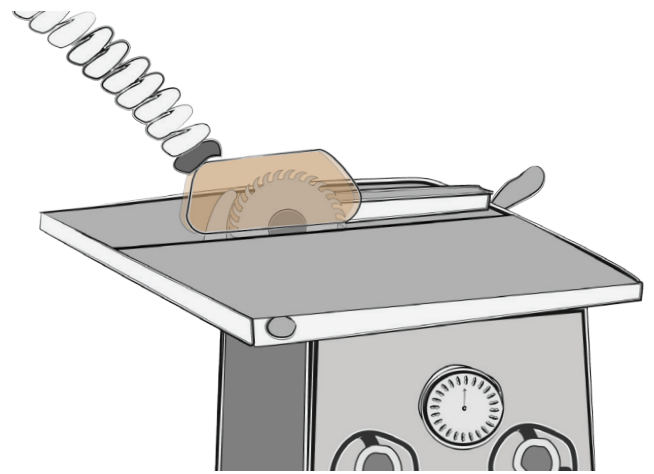
Be aware: It is vital to guard these cutters and to follow safe systems of work. If your finger contacts a two-knife cutter making 10,000 cuts per minute, in a tenth of a second it will take 16 slices off your finger!

Circular Saw Benches

Circular saws should have:

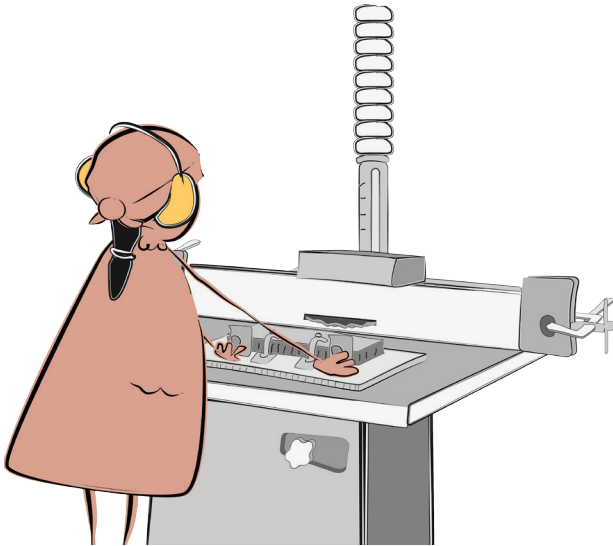
- A riving knife **3**
- A top guard, which can be lowered as close as possible to the work piece **4**

These prevent wood being ejected towards you and you touching the saw blade.



To prevent cuts when you use a circular saw you must keep your hands away from the blade. If you need to approach within 30 cm of the saw blade use a push stick **5** that is at least 45cm long and has a bird's mouth **6**. This will ensure that your hand is kept away from the rotating blade.

Vertical Spindle Moulder



Assess each job carefully before starting.

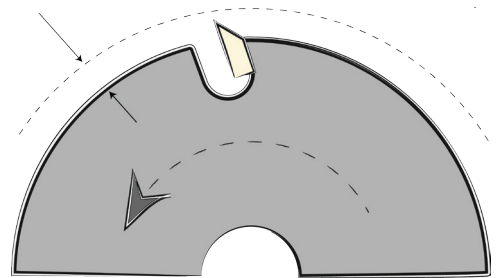
To determine the guards you will need to reduce the chance of touching the cutters.

Consider fitting the machine with a brake to stop the cutter within a short time, ideally 10 seconds.

To avoid fingers coming into contact with the cutters when the machine has been turned off but is still rotating.

Where possible use limited cutter projection tooling.

This reduces the risk of kick-back and the severity of injury (if your hand contacts the tooling).



These machines can be used for different types of work. Depending on the activity you are carrying out you will need different guards. No single type of guard will protect you from every activity. In most instances the cutters can be guarded to a high standard and where that isn't possible you can use jigs and work holders.

WOOD DUST

Wood dust is very common in workshops, mainly because machine operations generate it. Wood dust is hazardous. Why?

- It can cause asthma, dermatitis and cancer.
- It can cause fires or explosions because it is flammable.
- You can slip on it when it is on the floor.



Inform workers of the dangers of breathing in wood dust and the precautions they need to take.

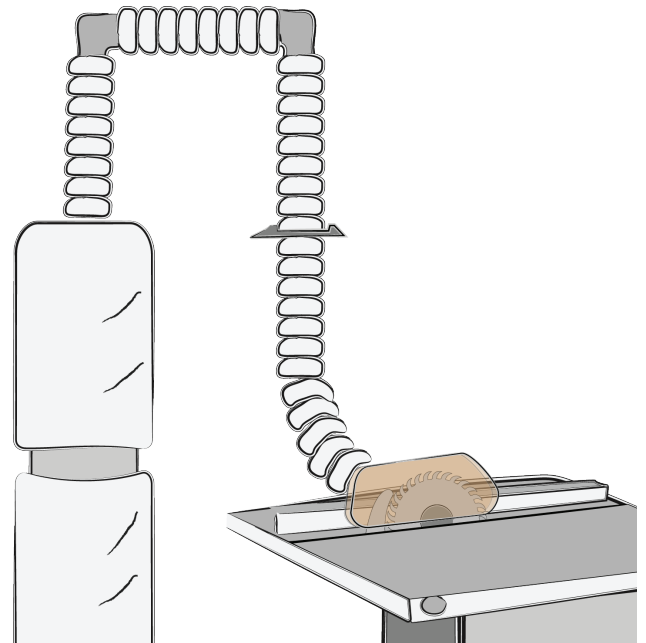
So that all understand the risks and what controls are needed to remain healthy.

Collect the dust when and where it is generated using dust extraction systems connected to the machines.

By capturing dust at the source you prevent it from being spread out and breathed in.

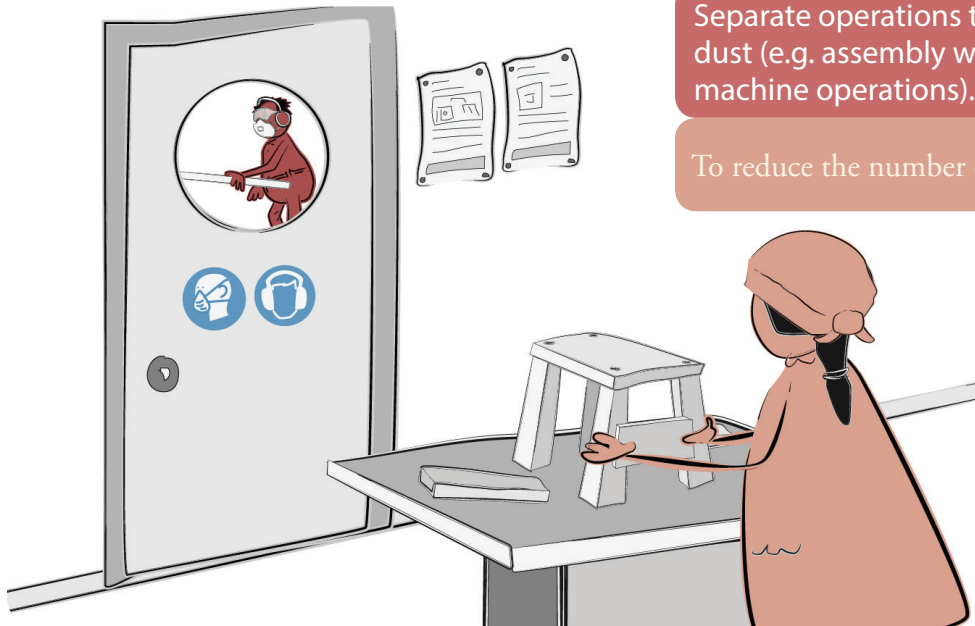
If this is not possible wear appropriate dust masks (check with the manufacturer that they prevent inhalation of fine dusts).

If you don't inhale the dust you reduce the risk of lung diseases.



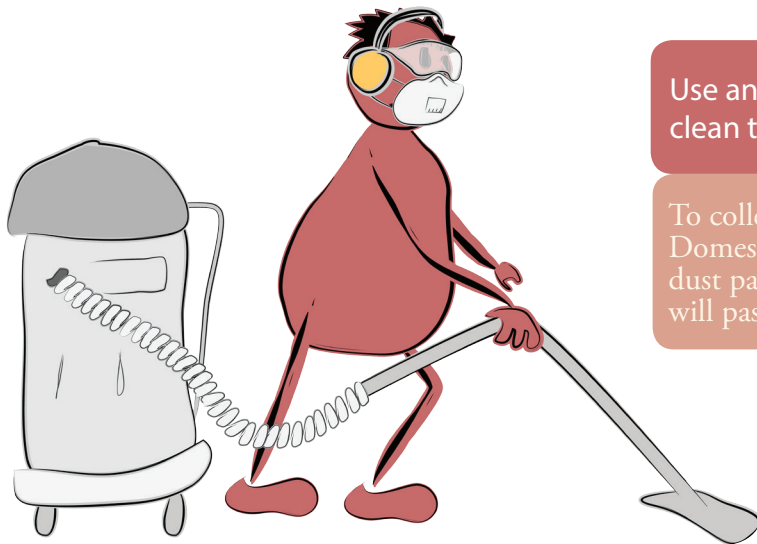
Use skin creams once a day.

Because wood dust dries out your skin, creams reduce the risk of dermatitis.



Separate operations that do not generate wood dust (e.g. assembly work) from those that do (e.g. machine operations).

To reduce the number of workers exposed to dust.



Use an industrial vacuum cleaner with dust filters to clean the workshop.

To collect the dust so you do not breathe it in. Domestic vacuum cleaners might not collect sufficient dust particles because they are too small and fine dust will pass through the filters.

If you must sweep up the dust, dampen it down (e.g. using a watering can) and wear dust masks.

To ensure that the fine particles cannot become airborne and re-enter the breathing zone.

Do not use compressed airlines to blow away dust.

Because the dust is simply moved about and re-enters breathing zones.



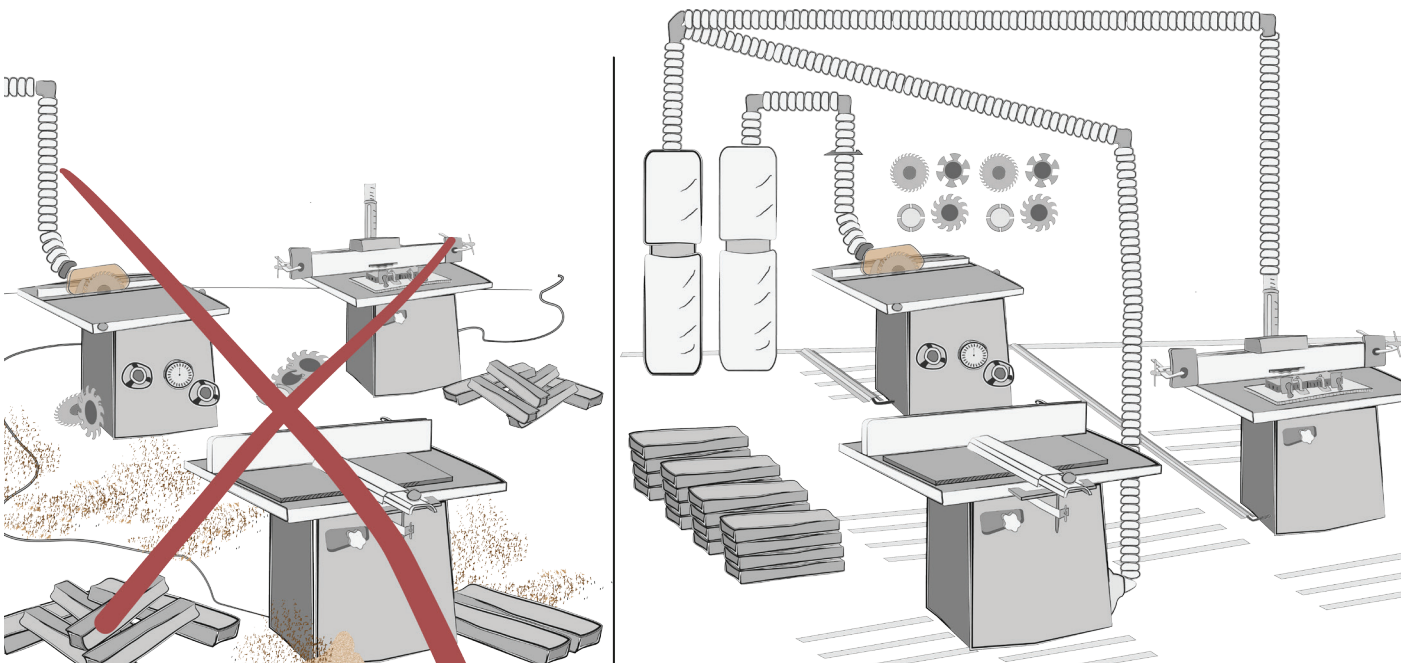
Machining wood e.g. cutting and sanding, will produce fine wood dust that you can not see as well as dust you can see. If dust is inhaled, it will damage your lungs. Following the above precautions will help to ensure you stay healthy.

SLIPS AND TRIPS

Many woodworkers have been injured due to accidents that have resulted from a slip or trip. Common causes of these accidents are trailing cables, machine tools, wood offcuts, wood dust, waste, liquids, waxes, polishes and slippery, uneven or damaged flooring. When you slip or trip you often can not control what happens next and when you fall, you might touch a poorly guarded machine resulting in serious injury. Even if this is not the case a slip or trip may result in other severe injuries.

Keep the workshop clean and tidy.

To reduce the chance of slipping or tripping over something.



Assess the flooring and consider if:

- Repairs need to be made
- Anti-slip paint or anti slip strips could be placed in areas where workers stand to operate machinery

Level non-slippery floors reduce the risk of slipping and tripping and therefore accidents.

Reroute cables to take them off the floor. If this is not possible they should be secured and covered.

This will remove a tripping hazard that is often present close to machinery.

A tidy workshop not only reduces the chances of slipping and tripping but productivity is improved as you know where everything is stored and it is easier to move about.

NOISE

Woodworking machines can generate a lot of noise. Short exposure can result in temporary hearing loss and continued exposure can result in permanent hearing damage. One of the problems is that you might not notice that your hearing is getting worse, because hearing loss is a gradual process.

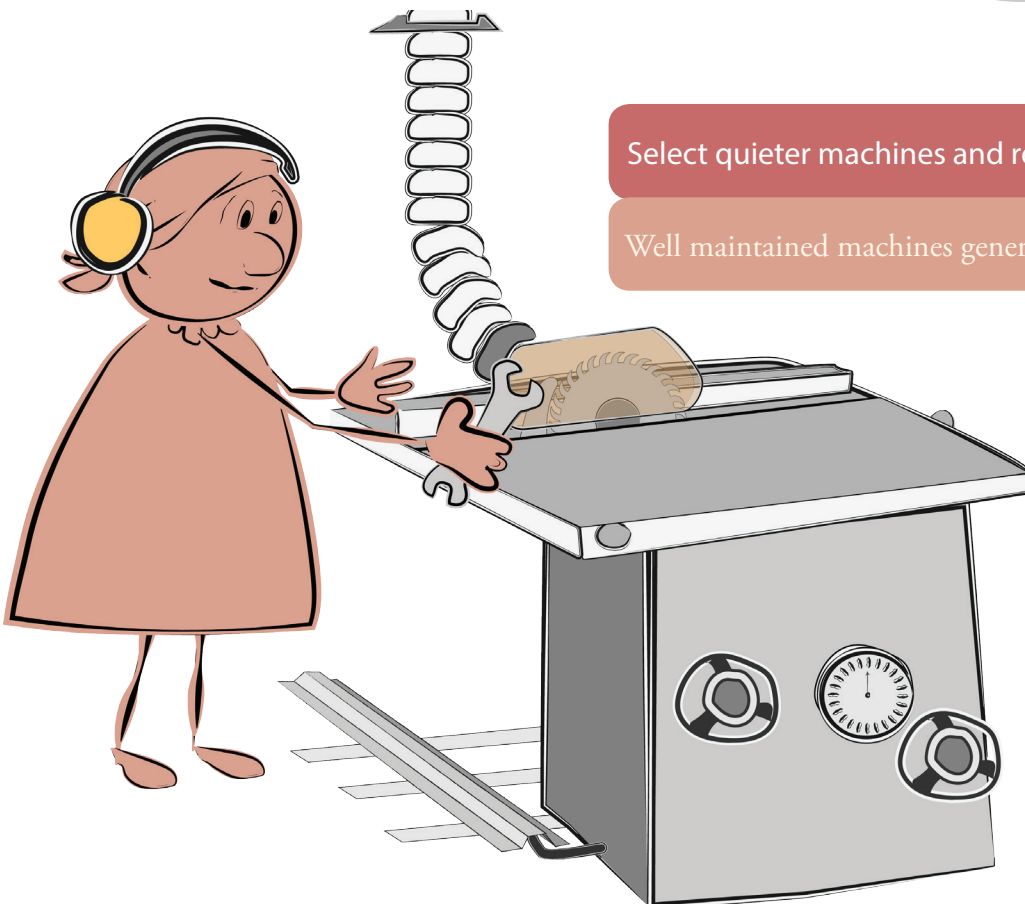
Hearing loss may occur when you are exposed to an average level of noise above 80 decibels over an eight-hour working day and does occur if you are exposed to above 85 decibels over an eight-hour working day. If you cannot hear someone who is 2 metres away talking normally, then the noise level is probably high enough to damage your hearing and you need to take action.

Tell workers about the consequences of being exposed to noise.

So they understand why they have to take the precautions.

When operating woodworking machines use hearing protection correctly and ensure it is correctly maintained.

If used incorrectly or not maintained it is not effective.



Select quieter machines and regularly maintain them.

Well maintained machines generate less noise.

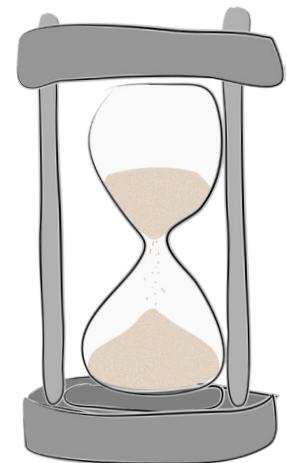
Separate operations that do not generate noise (e.g. assembly work) from those that do (e.g. machinery operations).

To reduce the number of workers exposed.



Reduce the number of hours when workers are exposed to noise, for example by moving workers between different operations and areas in the work site.

By reducing the amount of exposure, you reduce the risk of hearing loss.



Woodworking machines produce noise levels well in excess of 80 decibels, for example circular saw benches, surface planers and spindle moulders may produce noise levels between 97 and 102 decibels. Exposure to these levels of noise even for short periods will result in hearing damage so you must follow the above precautions to ensure you stay healthy.