



Safe roofwork



Working on roofs can be dangerous, and high safety standards are essential however long- or short-term the work. This factsheet provides basic advice on safe roofwork, but cannot provide detailed guidance. It is recommended that you

contact your enforcing authority or other relevant body before starting work if you require further advice.

Precautions for roof work

Is the work necessary?

The best way to prevent a fall from or through a roof is not to go on it in the first place. If the work needs to be done, can it be done without going on the roof or can the amount of time on the roof be reduced? For example, it may be possible to partially assemble roof sections at ground level to minimise the time spent working at heights.

Before starting work

A risk assessment should be carried out for all roof work **before** work starts. The necessary equipment, appropriate precautions and systems of work should be provided and implemented, and workers should have had clear instruction and training. All roofwork, including short-duration work (lasting minutes rather than hours), needs careful planning to minimise the risks to workers.

Fall prevention

Suitable preventive measures should be taken where there is a risk of falling during work on the roof and while getting on and off it. Collective measures to protect against the risks of falls should be taken, based on the findings of the risk assessment, before personal protective measures. Any safeguard provided to prevent falls (such as edge protection) should be strong enough to prevent or arrest falls and stop injuries to workers.

Fall prevention measures should be in place before work at height starts and remain in place until the work is finished. Weather conditions should be taken into account during roofwork, as icy, wet or windy conditions can significantly increase the risk of people or material falling.

Falling material

Falling material can kill. Nothing should be thrown from a roof. Take the following steps:

- use enclosed rubbish chutes, or lower material to the ground;
- do not let material that could fall accumulate;

- prevent access to danger areas underneath or adjacent to roofwork;
- use debris netting, covered walkways or similar safeguards to stop falling material causing injury;
- where possible, avoid carrying large and heavy objects onto roofs;
- ensure that all material is stored correctly, particularly in windy weather.

Training

Roof workers need the appropriate knowledge, skills and experience to work safely. Workers need training to be able to recognise the risks, understand the appropriate systems of work and be competent in the skills to carry them out, such as putting up edge protection, operating a mobile access platform, or installing and wearing harness systems.

Types of roofs

Flat roofs

Working on a flat roof is high risk. People can fall:

- from the edge of a complete roof;
- from the edge where work is being carried out;
- through openings, gaps or fragile roof lights.

Preventive measures are required during work on flat roofs where there is a risk of falling. Protective measures may be required at the roof edge, openings, access points to the roof and where there are fragile roof lights.

Pitched roofs

On pitched roofs, people can fall:

- from eaves;
- by slipping down the roof and then over the eaves;
- through the roof internally;
- from gable ends.

Edge protection needs to be strong enough to withstand a person falling against it. The longer the slope and the steeper the pitch, the stronger the edge protection needs to be. Powered access platforms can provide a safe workplace as an alternative to working on the roof itself. They can be particularly useful in short-duration work and during demolition when gaps are created in the roof.

Safe access, egress and working places should be provided. As slates and tiles may not provide a safe footing, roof ladders or similar equipment may be required.

Fragile roofs

A fragile material is one that does not safely support the weight of a person and any load they are carrying. Many roof

assemblies are, or can become, fragile. Asbestos cement, fibreglass and plastic generally become more fragile with age, and steel sheets may rust. Sheets on poorly repaired roofs might not be properly supported. Roofs can also have fragile areas (such as roof lights) not immediately apparent, and they can be temporarily fragile, particularly during construction.

A fragile roof is not a safe working place and should not be accessed without suitable preventive measures.

Industrial roofing

Working on wide-span industrial roofs presents risks of falling:

- from the roof edge;
- through gaps in the partially completed roof;
- through liner panels;
- from the leading edge when unprotected gaps are inevitable;
- from the frame, such as when loading out with roof sheets;
- through fragile or temporarily secured roof lights or coverings.

Good planning can significantly reduce the risks involved in industrial roofing. Key elements are as follows.

- Reduce the need for workers to travel about the roof by:
 - making full use of loading bays;
 - arranging for the right sheets to be delivered as they are needed to the right place at the right time;
 - arranging access points that are convenient for the working position.
- Minimise the potential for falls by providing a safe place of work rather than relying on fall arrest equipment to restrict a fall.

Work on existing roofs

This type of work includes inspection, maintenance and cleaning, as well as refurbishment, stripping and dismantling. Non-specialists such as cleaners, janitors or building managers often do inspection and cleaning work. This work should not be carried out without a suitable risk assessment, proper planning, precautions and supervision.

Planning work on old roofs

Work on old roofs needs careful planning, as it is necessary to:

- identify fragile parts of the roof;
- identify preventive measures;
- liaise with the client (where necessary);
- carry out a structural survey in some cases; and in all cases
- carry out a risk assessment.

When planning for repair, refurbishment or dismantling of roofs, consider how the materials will be stripped from the roof and how they will be stored. Safeguards protecting

workers from falls are required throughout the dismantling process. A safe system of work for the demolition or dismantling of roofs and roof materials is essential.

Consultation

Consulting the workforce is a requirement. Using their knowledge helps to ensure that hazards are identified and solutions implemented. Employees must be consulted on health and safety measures and also before the introduction of new technology or products. Consultation helps to ensure that workers are committed to health and safety procedures and improvements.

Legislation

Key EU directives relevant to roofwork include:

- Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work;
- Council Directive 92/57/EEC of 24 June 1992 on the implementation of minimum health and safety requirements at temporary or mobile construction sites;
- Directive 2001/45/EC of the European Parliament and of the Council of 27 June 2001 amending Council Directive 89/655/EEC concerning the minimum health and safety requirements for the use of work equipment by workers at work.

European directives set minimum standards for health and safety and are transposed into law in all Member States. National legislation may require higher standards, so check with your enforcing authority.



Courtesy of OPPBTP, France

Further information

This factsheet has been produced to support the European Week for Safety and Health at Work 2004. Other factsheets in the series and further information on construction are available at <http://ew2004.osha.eu.int>. This source is being continually updated and developed. Information on EU safety and health legislation can be found at <http://europe.osha.eu.int/legislation/>.