

Selecting equipment for work at height

‘Height Aware’ campaign

Information sheet 2

If you carry out work at height, or contract others to do work, this information will help you select the right equipment for the work.

What factors do you need to consider?

Working conditions

When deciding which type of equipment is most suitable for a particular task, consider the following:

- slopes or poor ground conditions;
- obstructions, eg steelwork or overhangs;
- fragile surfaces;
- floor loading.

Distance to be climbed

Portable ladders are less suitable for higher climbs, particularly if loads are carried. Where possible, provide temporary stairs or scaffold access towers with internal stairs, rather than portable ladders.

Duration and frequency of use

Longer duration or regular jobs generally justify a better standard of fall protection, eg a tower scaffold, podium step or cherry picker rather than a ladder or stepladder. A ladder or stepladder may be acceptable for short duration tasks, eg replacing a light bulb when building a tower or podium would not be reasonable because the task itself takes only a few seconds to do. But, installing several rows of light bulbs or fluorescent strips in a false ceiling refurbishment may justify the use of a tower or podium steps because the task takes longer.

Distance and consequences of a potential fall

If you have to use a fall arrest system you must make sure there is adequate clearance for it to deploy, so the user does not hit an obstruction or the ground before the fall is stopped.



If you have to use nets or airbags they should be located as close as possible to the working level because they do not work as effectively if the fall distance is too great.

Evacuation and rescue

If you have to use a fall arrest system, you must make sure a rescue can be carried out if a worker is left suspended from a roof edge.

Installation and removal

When selecting work equipment look at all the risks, not just those associated with the ‘use’ phase. It may take two or more people to assemble a tower scaffold to get onto a roof and install temporary edge protection, whereas the repair may need only one person on the roof, putting several people at risk so one person can work safely. A better solution would be to use a cherry picker, so one person can perform the task safely from the working platform. This avoids others being put at risk during set up and dismantling.

There are even more risks associated with work on a fragile fibre/asbestos cement roof. Where possible, use a cherry picker or tower scaffold to access and repair a leaking skylight. This will remove risks associated with setting up and dismantling work equipment on the roof.



How do you decide what equipment to use?

You need to make sure you give **collective protection** measures priority over **personal protection** measures.

What is *collective protection*?

Collective protection is equipment which can protect more than one person and, once properly installed or erected, does not require any action by them to make sure it will work. Examples which prevent a fall include, scaffolds, tower scaffolds and cherry pickers which have guard rails and equipment which minimises the consequences of a fall, include nets and airbags.

What is *personal protection*?

Personal protection is equipment which protects only the user/wearer and requires action by the individual, such as properly wearing and adjusting it, for it to work. Examples include work restraint equipment which prevents a fall and fall arrest equipment which minimises the consequences of a fall.

Why give priority to collective measures?

Collective measures have several advantages. They are easier to use, protect everyone at risk in the work area and need less effort in terms of maintenance and user training. Personal measures have disadvantages - they require a high level of training and maintenance and they only protect the user.

What does this mean in practice?

If you can provide collective protection you should. For example:

- use a tower scaffold (collective fall prevention) rather than work restraint (personal fall prevention);
- use airbags (collective mitigation) instead of a fall arrest system (personal mitigation);
- however, choose work restraint (personal fall prevention) before airbags (collective mitigation).

The table shows which equipment provides collective or personal protection and if it prevents a fall or just minimises the risk of serious injury. Always give priority to using equipment which provides collective prevention of falls, shown in the shaded box below.

	Collective	Personal
Work equipment which prevents a fall	Guard rails, scaffolding, tower scaffolds, cherry pickers, scissor lifts, podium steps	Work restraint
Work equipment which minimises the consequences of a fall	Airbags, safety nets	Fall arrest
Other work equipment which neither prevents or mitigates a fall	Ladders, stepladders, kick stools	

What else do you need to do?

Make sure the people who select, assemble, use and supervise the use of the equipment have all the relevant information, eg manufacturer's instructions, have been trained and are competent. Make sure the equipment is regularly inspected and maintained, including ladders and stepladders.

Want to know more?

This is one of five 'Height Aware' campaign information sheets. The others in the series are:

- Sheet 1:* Work at height: The basics
- Sheet 3:* Selecting competent contractors for work at height
- Sheet 4:* Selecting, using and maintaining personal fall protection equipment
- Sheet 5:* Minor roof maintenance work: Protecting against falls

More information is available on the HSE website www.hse.gov.uk/falls and from HSE Infoline on 0845 345 0055.