



Fall Protection Equipment Selection

Working At Height is split into several sections, in a Hierarchy of increasing risk to the worker.

Hierarchy of Measures

- 1 Procedure Change**
Alter the method of work to remove work from height completely
- 2 Specialist Worker**
Use a rope access technician or similar to remove the risk from untrained workers
- 3 Collective Safety**
Barriers or Demarcation systems to provide a fixed and passive safety area.
- 4 Fall Restraint**
Use a Full Body Harness with suitable PPE to provide a 0% fall risk and 100% safety
- 5 Fall Arrest**
Use a Full Body Harness and shock absorber device to reduce the effect of a fall. A rescue plan is needed.

How do you select the right equipment to use for a job?

- When selecting equipment for work at height, employers must:
 - provide the most suitable equipment appropriate for the work
 - take account of factors such as:
 - the working conditions (eg weather);
 - the nature, frequency and duration of the work;
 - the risks to the safety of everyone where the work equipment will be used.
- If you are still unsure which type of equipment to use, once you have considered the risks, the Work at height Access equipment Information Toolkit (or WAIT) is a free online resource that offers possible solutions.

How do you select the right equipment to use for a job?

Select the correct equipment

Access and Egress

Specialist Worker?

Distance and consequences of a fall

Duration and frequency of use/task

Ease of rescue/evacuation

Risk of use, installation and removal of equipment

Protection Measure	Collective			Personal		
	Type	Standard	Comment	Type	Standard	Comment
Prevent	Barrier	EN 13374 EN 14122-3	Either in the form of a free standing or fixed guard rail system a collective barrier provides un-interrupted access for many people with minimal training and zero chance for a fall.	Restraint Systems	EN 361 (Harness) EN 354 (Lanyard) EN358 (Adjustable Lanyard)	Akin to using reins on a small child this type of system is the preferred use of PPE in fall protection. Bringing in more training than in Collective Safety systems, but preventing the worker from falling and therefore removing the need for rescue planning or equipment. Generally this is a full body protection harness with a fixed length or adjustable lanyard.
	Work Platform	Various	A Mobile Elevated Work Platform (MEWP), or a Scissor Lift, or a Scaffold, a Work Platform allows the worker to be protected with minimal work at height training. Care should be taken however to ensure that other necessary training is provided (eg IPAF) and also that some work platforms require the use of PPE when in use.	Anchorage Placement	EN 795 BS 7883 (UK Installation)	In addition to using a full body harness and restraint lanyard the placement of the anchorage of the PPE is vital to the success of a fall restraint system. 0% fall tolerance exists within fall restraint so anchorage position/selection is key to 100% safety.
	Parapet	Construction Standards	Many buildings come with a parapet already included within the building structure. Care should be taken that a height of the parapet is 1100mm or higher and that no work is required to be done where the worker needs to either lean over or climb onto the parapet.			
	Demarcation	Non Applicable other than for Barrier (as above)	Demarcation can come in the form of either painted lines to show the safe passage points, or via the use of a physical barrier such as Demarcation Chains or Guard Rail systems.			
	Walk way	EN 516	Walk way systems are also a good method of ensuring a marked access path in a safe area. They can also be used in conjunction with barriers or demarcation chains. In addition properly designed walk way systems can prevent slips and trips, thus reducing the workers risk even further.			
Minimise	Netting systems	EN 1263-1	Fall Arrest Netting systems are used predominantly in the portal frame building construction phase to provide collective fall arrest. Note must be made that clearance under the net MUST be adhered to and that rescue plans are put into place. Fall Arrest Netting MUST be installed by a trained operative (trained by FASET or similar)	Fall Arrest Systems	EN 361 (Harness) EN 355 (Lanyard) EN 360 (SRL) EN 353 (Vertical Lines) Various Other	Fall Arrest is the last resort in the Hierarchy of Fall Protection Measures. This is due to the fact that falling requires a rescue plan which invariably puts another person(s) in danger plus comes with a high chance of injury for the fallen person, plus suspension related issues such as DVT and Syncope.
	Airbags / Beanbags	PAS59 : 2004	These are often used in the vehicle loading and domestic construction sectors. Large airbags placed around or below the work area to catch the worker should they fall.	Rescue	Various	Once a worker has fallen then a rescue plan needs to be put into action. Required by law for any working at height area where a worker can fall this is required to be specific to the work area, and cannot be a call to the Fire Brigade. Specialist equipment and regular training and practice is required to ensure this is fully compliant and safe.
	Crash Decking	ACR Red Book	Used on roofing areas crash decking is used to cover over fragile panels and skylights to prevent a falling worker from going through the panel. Examples of this are skylight covers.	Evacuation	Various	Should an area be deemed as unsafe and require rapid evacuation (such as an oil rig) then specific equipment and procedures need to be applied to ensure that the workers can evacuate the area within a safe time.



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