



# HARNESSES & SAFETY EQUIPMENT

# 10

## The A, B, C, D of Personal Fall Protection

The basics of every personal fall arrest system can be described as the ABCD of fall arrest.

**A** **ANCHORAGE**  
Anchorage is a secure point of attachment (structure) for the fall arrest system.

**B** **BODY SUPPORT**  
Full body harnesses provide a connection point on the worker for the personal fall arrest system.

**C** **CONNECTORS**  
Connectors are devices used to connect the worker's full body harness to the anchorage system (eg. shock absorbing lanyard, self retracting lifeline, etc.).

**D** **DESCENT/RESCUE**  
Rescue and retrieval of a fallen worker is a required component of any Fall Protection Programme.

Before any user decides to purchase a piece of height safety equipment, it is important to understand if it is actually needed.

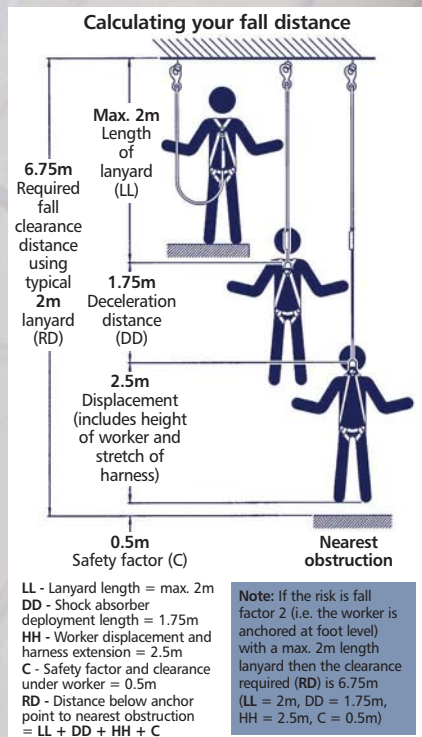
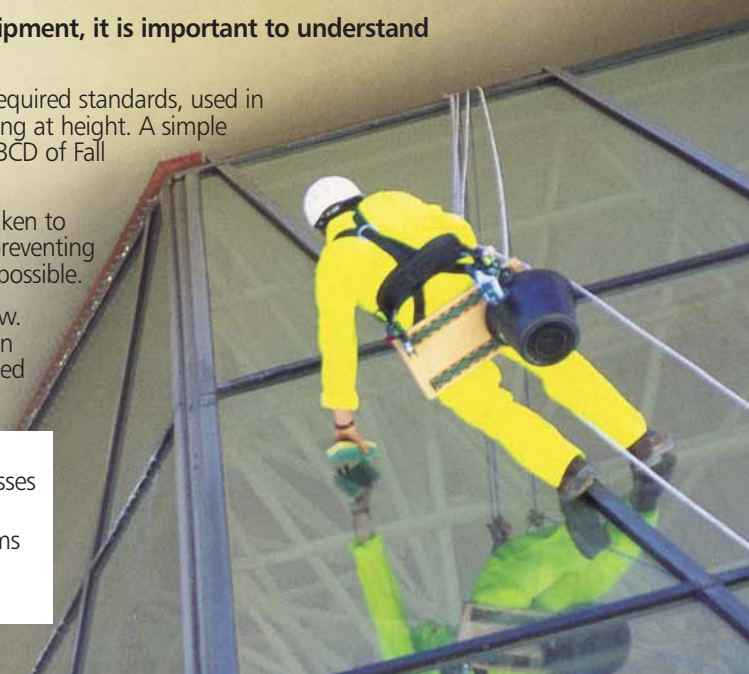
Fall Protection Systems are a collection of equipment conforming to the required standards, used in conjunction with each other to ensure the safety of a worker whilst working at height. A simple way of remembering the core components of a fall arrest system is the ABCD of Fall Protection (as shown above).

In order to ensure that the correct equipment is supplied, care must be taken to assess the work environment to determine if restraint can be employed, preventing a fall completely. Restraint products can only be used if 100% restraint is possible.

Fall clearance for a shock absorbing lanyard is shown in the diagram below. Care should be taken to ensure that a suitable anchorage is supplied, in an elevated position to minimise free-fall. If clearance is limited and an elevated anchor is available then an SRL (self retracting lifeline) should be used.

### European Standards

- |  |                              |
|--|------------------------------|
| EN 341 – Descender devices               | EN 361 – Full body harnesses |
| EN 354 – Lanyards                        | EN 362 – Connectors          |
| EN 355 – Energy absorbers                | EN 363 – Fall arrest systems |
| EN 358 – Work positioning systems        | EN 566 – Slings              |
| EN 360 – Retractable type fall arresters | EN 795 – Anchor devices      |



### WORK AT HEIGHT REGULATIONS 2005

"A place is 'at height' if a person could be injured falling from it, even if it is at or below ground level"

The Work at Height Regulations 2005 came into effect on 6 April 2005. They apply to all work at height situations where there is a risk of a fall liable to cause personal injury.

They place duties on employers, the self employed, and any person that controls the work of others, (e.g. facilities managers or building owners who may contract others to work at height). As part of the regulations, duty holders must ensure:

- All work at height is properly planned and organised
- All work at height takes account of weather conditions that could endanger health and safety
- Those involved in work at height are competent
- The risks from work at height are assessed and appropriate work equipment is selected and used
- The risks from fragile surfaces are properly controlled
- Equipment for work at height is properly inspected and maintained
- Where risk assessment requires fall arrest equipment to be used, provision for rescue must be included
- The risks from falling objects are properly controlled

There is a simple hierarchy for managing and selecting equipment for work at height. Duty holders must:

- Avoid work at height where they can
- Use work equipment or other measures to prevent falls where they cannot avoid working at height
- Where they cannot eliminate the risk of a fall, use work equipment or other measures to minimise the distance and consequences of a fall should one occur

The regulations include schedules giving requirements for existing places of work and means of access for work at height, collective fall protection (e.g. guardrails and working platforms), collective fall arrest (e.g. nets, airbags etc.), personal fall protection, (e.g. work restraints, fall arrest and rope access) and ladders.