

Technical Query

Q: If the user instructions state: *Always ensure there is sufficient fall clearance below worker, 7.0m minimum is recommended for 2.0m lanyards, how can they be used to climb the first 7m of any climb?*

A: The clearance distance of circa 7m is a 'worst case scenario', i.e. when a 2m long energy-absorbing lanyard (the maximum length allowed) is anchored at foot level. This is sometimes referred to as a fall of 'Fall Factor 2' (FF2).

A climber should seek to:

- Use the shortest lanyard length practical – often between 1 to 1.5m
- Keep their attachment point at or above waist level, i.e. at least FF1

This will reduce (a) the energy in the fall, and (b) the required clearance distance.

Examples of the calculation of minimum free space requirements for different fall arrest systems are given in BS 8437:2005, Code of practice for selection, use and maintenance of personal fall protection systems and equipment for use in the workplace. In particular, Annex F (informative), Clause 9.7 and Figure 32.

Note

The clearance required is made up as follows:

- 2m – length of energy absorbing lanyard
- 1.75m – deployment distance (maximum allowed under the EN Standard)
- 2m – height of a person (notional) – *this also allows for some harness stretch*
- 1m – safety distance (recommended).
- 6.75m – total clearance below foot level (viz 7m)

© heightec, June 2012