

Products, training and operational support services for professional work at height and rescue

What impact force might be expected at an anchor were a fully body harness tested with different types of lanyard?

The energy absorbency of the lanyard, fall factor, mass & mass distribution of the falling object all have an effect on the forces experienced by the anchor and casualty.

Testing has recorded anchor loads (in kN) as follows:

With a full body harness and 100 kg anthropometric test dummy

Lanyard Fall Factor	Energy absorber	Dynamic rope	Wire strop
Fall Factor			
1	5.9 910 mm/1,130 mm	7.8 1,735 mm/2,085 mm	16.1 1,930 mm/1,930 mm
2	6.1 910 mm/1,280 mm	10.5 1,790 mm/2,050 mm	22.1 1,930 mm/1,930 mm

With a 100 kg mass (to EN 364)

Lanyard Fall Factor	Energy absorber	
1	4.4 1,040 mm/1,605 mm	
2	7.4 1,040 mm/1,600 mm	

NOTE:

The figures given thus: "910 mm/1,280 mm" represent the original length of the lanyard and the post-fall length (mm).

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