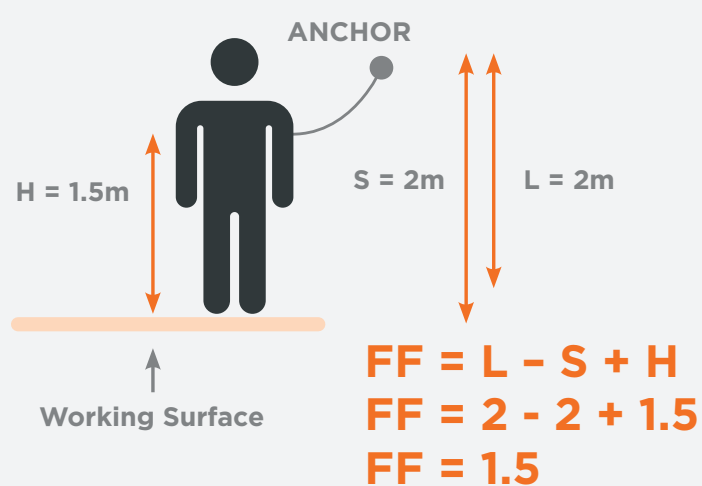


CALCULATING FALL CLEARANCE: A PRACTICAL GUIDE

PART ONE

FREE FALL DISTANCE

Free fall distance (FF) is the distance a worker falls before the safety system begins to arrest a fall.



PART TWO

DECELERATION DISTANCE

Deceleration distance (DD) is the distance the worker falls from activation of the safety system until finally coming to a complete stop.

Lanyards manufactured to AS1891.1 are made to limit tear-out length depending on the distance fallen.

Free Fall (FF)	600mm	1000mm	1500mm	2000mm
Deceleration Distance (DD)	300mm	500mm	600mm	900mm

PART THREE

CLEARANCE TO OBSTRUCTION

Clearance to obstruction (C) is a mandatory safety factor of 1 metre.

The distance is specified in the Australian Standard AS/NZS1891.4.

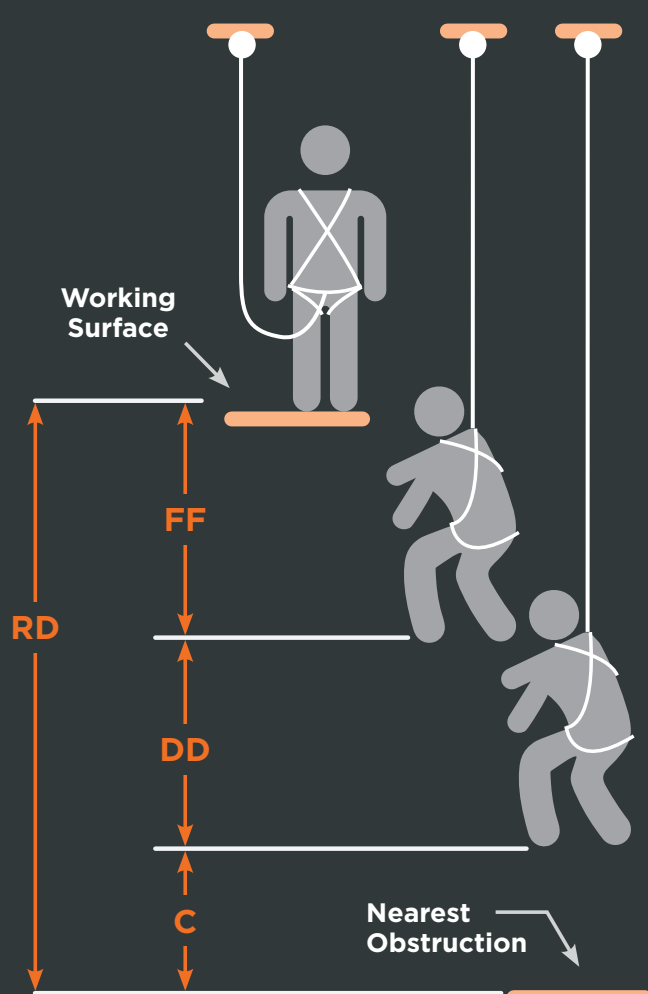


LEGEND: FF — Free fall distance L — Lanyard length before tear out S — Distance from anchor to work platform edge H — Maximum height of lanyard attachment to harness RD — Required fall clearance DD — Deceleration distance C — Clearance to obstruction

Adding it all up: required fall clearance

The final calculation adds together free fall distance (FF), deceleration distance (DD) and clearance to obstruction (C).

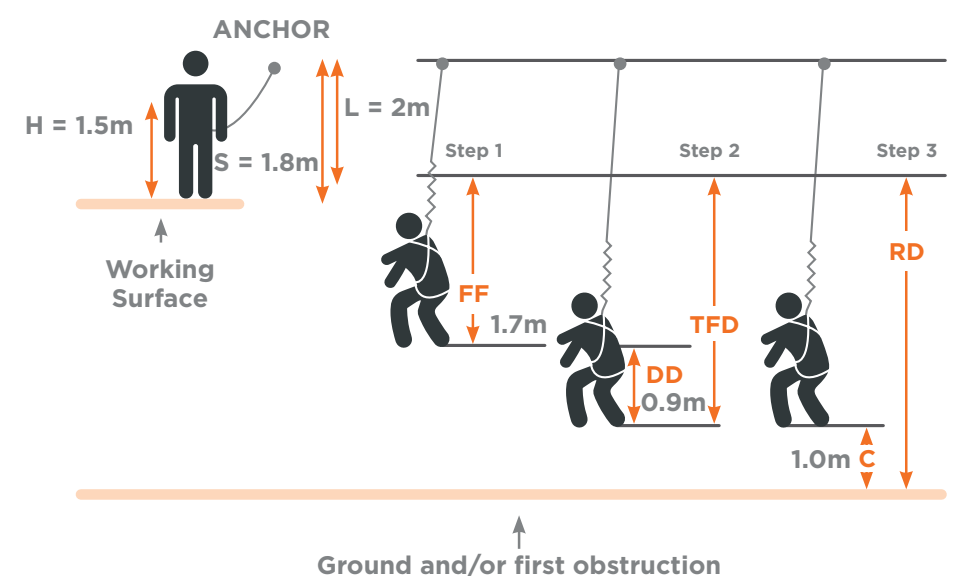
$$RD = FF + DD + C$$



OPTION 1: STANDARD 2M LANYARD

$$FF = 2 - 1.8 + 1.5\text{m or } 1.7\text{m}$$

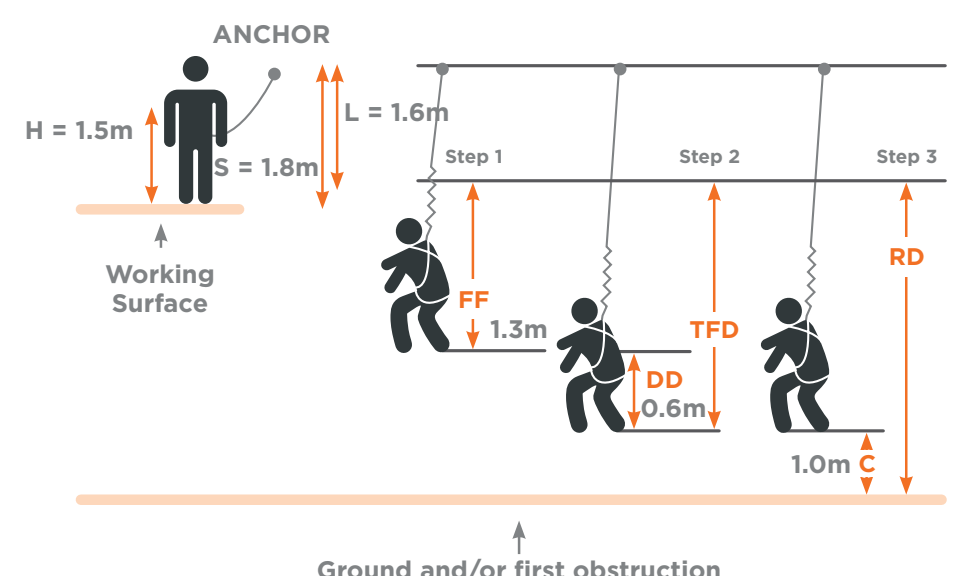
$$\text{So } RD = 1.7 + 0.9 + 1\text{m or } 3.6\text{m}$$



OPTION 2: HIGH ANCHOR POINT 1.6M LANYARD

$$FF = 1.6 - 1.8 + 1.5\text{m or } 1.3\text{m}$$

$$\text{So } RD = 1.3 + 0.6 + 1\text{m or } 2.9\text{m}$$



OPTION 3: LOW ANCHOR POINT 1.6M LANYARD

$$FF = 1.6 - 1 + 1.5\text{m or } 2.1\text{m} \quad \text{⚠}$$

$$\text{So } RD = 2.1 + 0.9 + 1\text{m or } 4\text{m}$$

