CALCULATING - CLEARANCE REQUIREMENT FOR SHOCK ABSORBING LANYARD

Step 1: Always choose an anchorage above the back D-ring whenever possible.

Step 2: Calculate the free fall distance (FFD) of the system by:
FFD = Length of lanyard (L) + Height of TL back of D-ring (B) - Height of anchorage (C)

Step 3: Calculate total fall distance (TFD)
TFD = SAE (Extension of shock absorber) + DS (D-ring slide)

Step 4: Calculate required minimum clearance (CR)
CR = TFD + B + SM

EXAMPLE
1 - Free Fall Distance (FFD): 2'
2 - Extension of Shock Absorber (SAE): 3.5'
3 - High of the back D-ring (B): 5'
1 - D-ring Slide (DS): 1'

Total Fall Distance (TFD) 11.5'
Minimum Clearance (CR) 18.5'

Ground and/or First Obstruction

FFD = L + B – C

TFD = FFD + DS + SAE

CR = TFD + B + SM

DS = D-ring Slippage = 1 foot

SM = Safety Margin = 2 feet - *Alberta OH&S

SAE = Shock Absorber Extension = 4 feet

B = Height that Lanyard connects to Harness = 5 feet

L = Lanyard

C = Point that Lanyard is connected to structure