

Fall Clearance Calculation Using an SRL

BEFORE FALL

AΗ

AH: Anchor Height

WH: Worker Height (standing)

CR: Clearance Required

FFD: Free Fall Distance*
DD: Deceleration Distance*

HS: Harness Stretch*
SF: Safety Factor*

SRL: Self Retracting Lanyard Length

*All added up = Total Fall Distance (TFD)

NOTE: Total Fall Distance (TFD) must be less than the Clearance Required (CR) (Total Fall Distance < Clearance Required)

 OSHA requires Free Fall Distance to be less than 24", but when using self-retracting lanyard (SRL), the typical activation distance is ~12".

OSHA Regulation: FFD = <24"Typical Performance: FFD = 12"

 OSHA requires a maximum of 42" for Deceleration Distance.

OSHA Regulation: DD = 42"
Typical Performance: DD = 12"

 Harness stretch is 12" even when harness is worn correctly.

HS = 12"

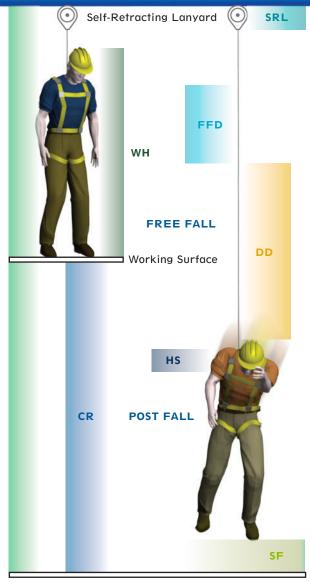
 Safety Factor (18-36") can include factors like additional harness stretch, D-Ring movement and a buffer zone.

SF= 24"

Anchor Height:

Self Retracting Lanyard Length = 18" (typical)
Free Fall Distance = 24"
Deceleration Distance = 42"
Harness Stretch = 12"
Worker Height = 60"
Safety Factor = 24"

Anchor Height: 180" (15 feet)



Lower Level Obstruction

Fall Clearance:

Free Fall Distance = 24"

Deceleration Distance = 42"

Harness Stretch = 12"

Safety Factor = 24"

Total Fall Distance: 102"* (8.5 feet)

^{*}Shorter Fall Distance may be achieved based on Typical Performance