

# Fall Clearance Calculation Using an SRL

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

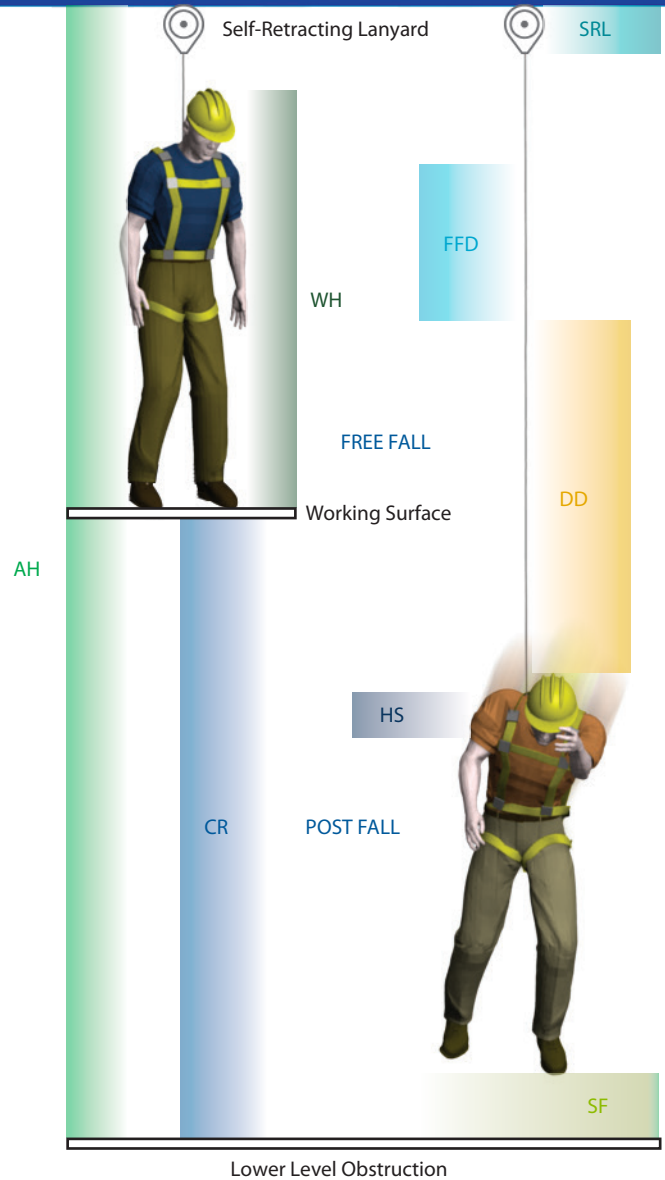
\*All added up = Total Fall Distance (TFD)

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"
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Anchor Height:		180" (15 feet)

BEFORE FALL



Fall Clearance:		
Free Fall Distance	=	24"
Deceleration Distance	=	42"
Harness Stretch	=	12"
Safety Factor	=	24"
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Total Fall Distance:		102" * (8.5 feet)

\*Shorter Fall Distance may be achieved based on Typical Performance