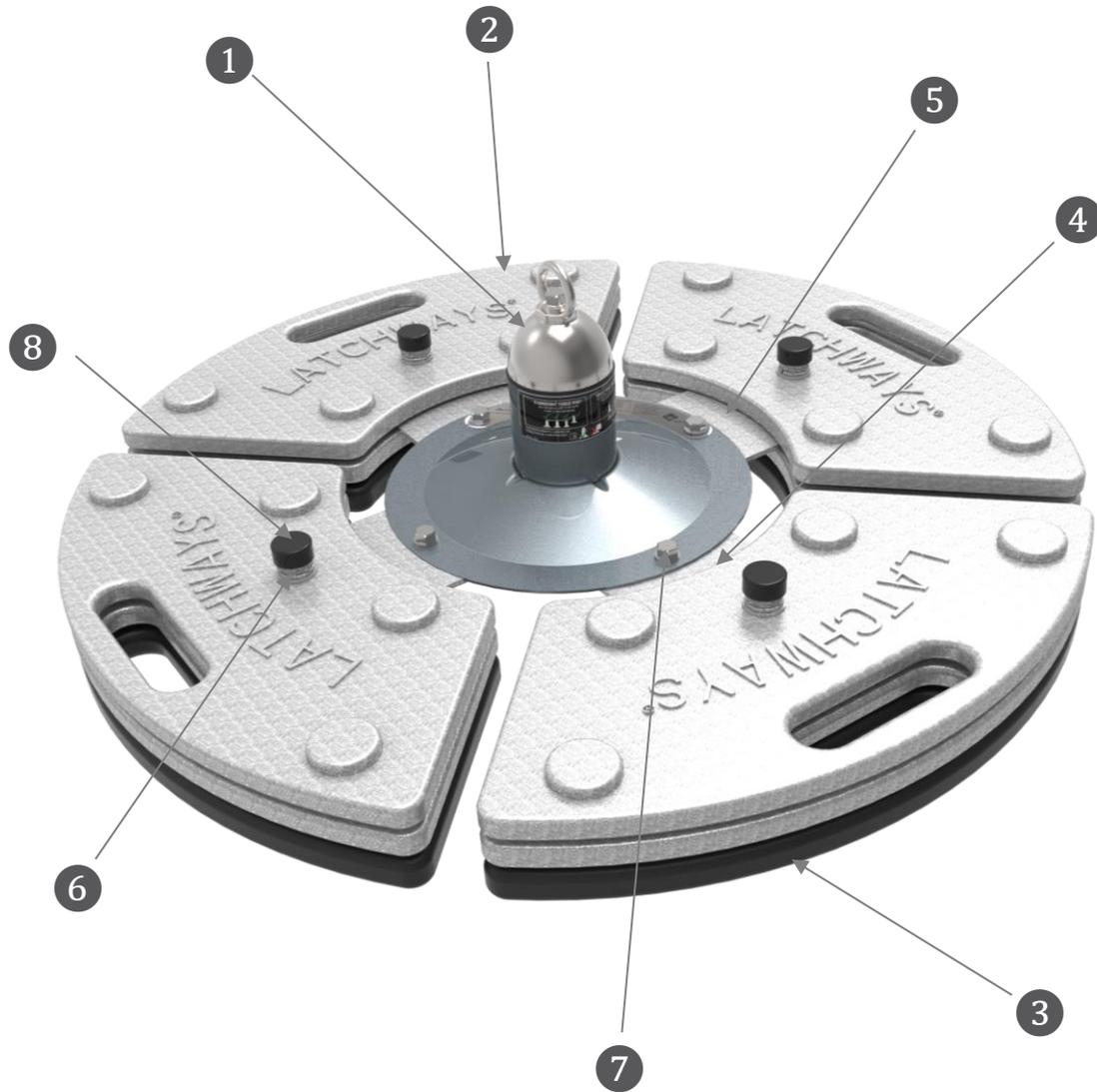
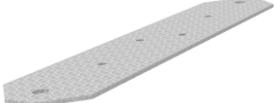
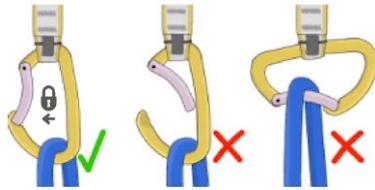
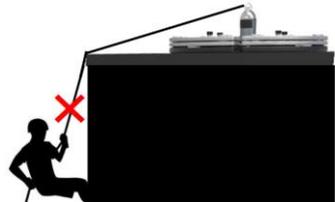


MSA Latchways Freestanding Constant Force[®] p

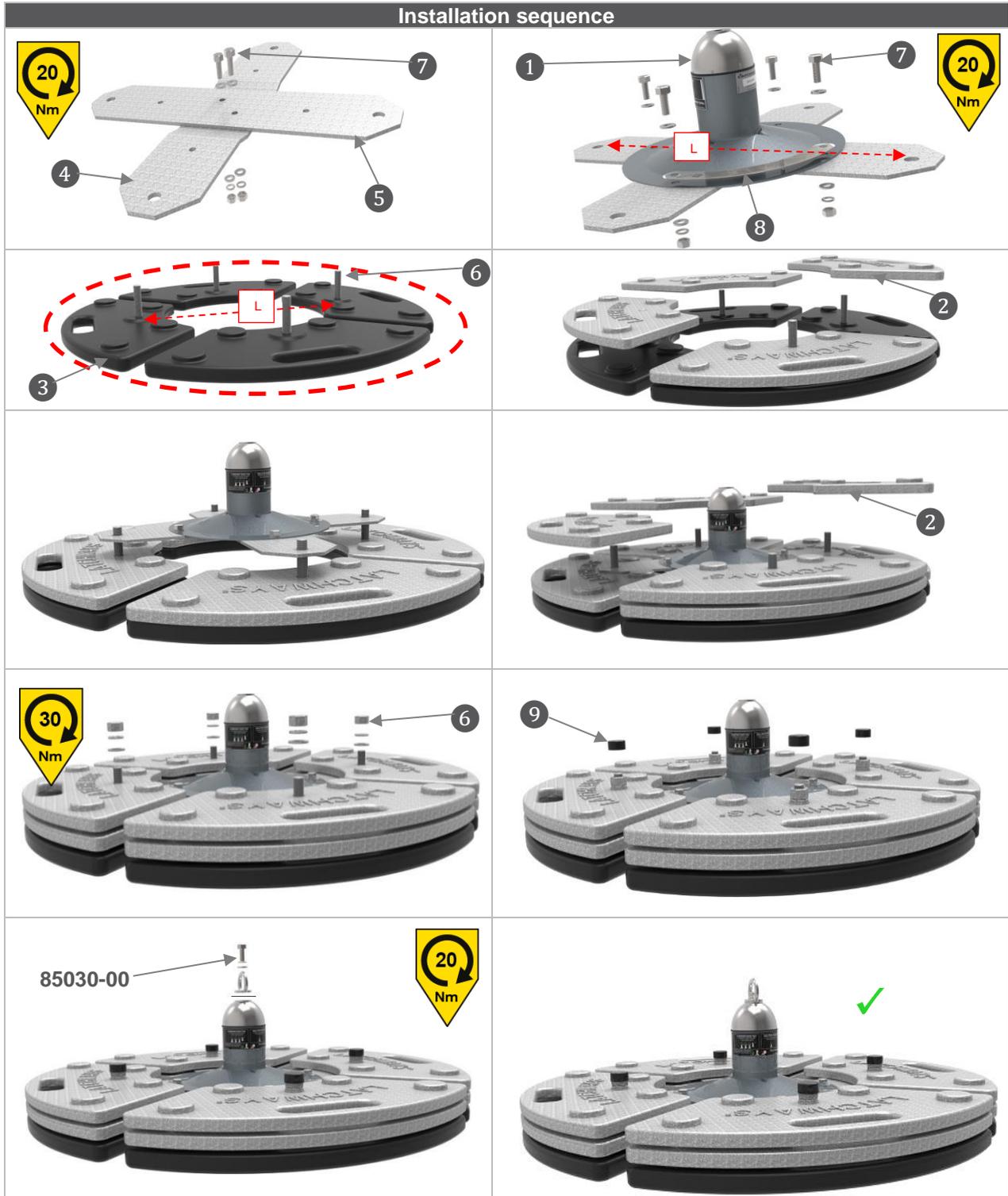
Installation instructions: Anchorage for Type C Horizontal lifeline (HLL)



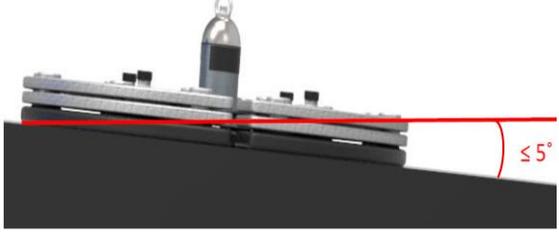
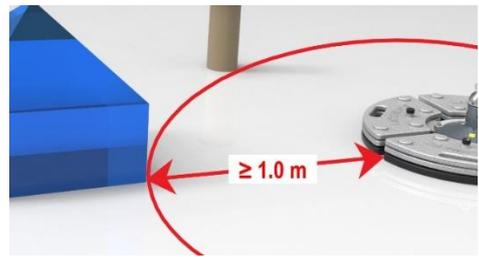
Components		REF 65643-00	REF 65644-00
		200 kg Intermediate	400 kg End or corner anchor.
1	 REF 65642-00	1	1
2	 REF 65640-01	4	12
3	 REF 65640-02	4	4
4	 REF 65640-04	1	1
5	 REF 65640-05	1	1
6	 M20 Galv. Fixings	4	4
7	 M12 Galv. Fixings	6	6
8	 REF 00800-07	4	4

Important safety information	
<p>Installation shall be completed by trained installers who are trained and capable of working at height; installations shall be completed following a risk assessment with a suitable rescue plan in place. Failure to follow these instructions may cause serious injury or death.</p>	<p>Always wear appropriate PPE.</p> 
<p>EN ANSI CSA AS/NZ</p> 	<p>EN ANSI CSA AS/NZ</p> 
	
<p>ONLY 1 user may be connected to the system at any one time.</p> <p>1x</p> 	

Tools required		
		
<p>19 mm, 30 mm</p>	<p>20-30 Nm</p>	<p>19 mm, 30 mm</p>



<p>REF 65643-00 (200 kg intermediate anchor)</p>	 x 8
<p>REF 65644-00 (400 kg end/corner anchor)</p>	 x 16

Positioning information	
	
	<p>Maximum surface incline is 5°</p> <ul style="list-style-type: none"> FR L'inclinaison maximale de la surface est de 5°. DE Die maximale Neigung der Oberfläche beträgt 5°. NL Maximale oppervlaktehelling is 5°. ES La inclinación máxima de la superficie es de 5° IT L'inclinazione massima della superficie sia di 5°. PT Inclinação máxima da superfície é de 5°.
	<p>Do not use the anchor where there is risk of water accumulations.</p> <ul style="list-style-type: none"> FR N'utilisez pas l'ancrage s'il existe un risque d'accumulations d'eau. DE Verwenden Sie den Dachanker nicht bei drohenden Wasseransammlungen. NL Gebruik geen anker op plekken waar zich water kan ophopen. ES No utilice el anclaje en zonas donde exista el riesgo de acumulación de agua. IT Non utilizzare l'ancoraggio dove c'è il rischio di accumuli d'acqua. PT Não use a ancoragem onde houver risco de acúmulo de água.
	<p>Ensure that there is a minimum 1.0 m clear space around the anchor device. Maximum deflection is 1 m.</p> <ul style="list-style-type: none"> FR Assurez-vous qu'il y a un espace dégagé d'au moins 1,0 m autour du dispositif d'ancrage. La déviation maximale est de 1 m. DE Stellen Sie sicher, dass um die Anschlagrichtung ein Raum von mindestens 1,0 m frei ist. Der maximale Rutschweg inkl. Verformung beträgt 1,0 m. NL Zorg voor een vrije ruimte van 1,0 m rondom de verankeringsvoorziening. De maximale doorbuiging is 1 m. ES Compruebe que haya un espacio libre mínimo de 1,0 m alrededor del dispositivo de anclaje. La deflexión máxima es de 1 m. IT Assicurarsi che ci sia uno spazio libero minimo di 1,0 m attorno al dispositivo di ancoraggio. La flessione massima è di 1 m. PT Assegure-se que haja no mínimo 1,0 m de espaço livre em torno do dispositivo de ancoragem. O ângulo máximo é de 1 m.

	<p>Brush surface before using anchor and ensure rubber segments will always be in contact with the roof.</p> <p>FR Balayez la surface avant d'utiliser l'ancrage et assurez-vous que les segments en caoutchouc seront toujours en contact avec le toit.</p> <p>DE Kehren Sie die Oberfläche, bevor sie den Dachanker verwenden, und stellen Sie sicher, dass die Kunststoffsegmente stets in Kontakt mit dem Dach sind.</p> <p>NL Borstel de ondergrond af voordat u het anker gebruikt en controleer of de rubberen segmenten altijd in contact met het dak zijn.</p> <p>ES Limpie la superficie con cepillo antes de utilizar el anclaje y compruebe que los segmentos de goma estén siempre en contacto con el tejado.</p> <p>IT Spazzolare la superficie prima di utilizzare l'ancoraggio e assicurarsi che i segmenti di gomma siano sempre a contatto con il tetto.</p> <p>PT Escove a superfície antes de utilizar a ancoragem e assegure-se que os segmentos de borracha estejam sempre em contato com o telhado.</p>
	<p>Ensure 2.5 m distance from any fall edge.</p> <p>FR Veillez à garder une distance de 2,5 m par rapport à tous les bords présentant un risque de chute.</p> <p>DE Stellen Sie einen Abstand von 2,5 m zu jeder Absturzkante sicher.</p> <p>NL Zorg voor een afstand van 2,5 m vanaf elke valrand.</p> <p>ES Asegúrese de que la distancia a cualquier borde de caída sea de 2,5 m.</p> <p>IT Accertarsi che vi sia una distanza di 2,5 m da qualsiasi bordo di caduta.</p> <p>PT Garanta 2,5 m de distância de toda borda.</p>
	<p>Do not use the anchor on surfaces with oil present.</p> <p>FR N'utilisez pas l'ancrage sur des surfaces huileuses.</p> <p>DE Verwenden Sie den Dachanker nicht auf öligen Oberflächen.</p> <p>NL Gebruik het anker niet op een ondergrond waar olie op zit.</p> <p>ES No utilice el anclaje en superficies con aceite.</p> <p>IT Non utilizzare l'ancoraggio su superfici con presenza di olio.</p> <p>PT Não use a ancoragem em superfícies onde haja óleo.</p>
	<p>Do not use the anchor on icy surfaces.</p> <p>FR N'utilisez pas l'ancrage sur des surfaces verglacées.</p> <p>DE Verwenden Sie den Dachanker nicht auf vereisten Oberflächen.</p> <p>NL Gebruik het anker niet op een ijzige ondergrond.</p> <p>ES No utilice el anclaje en superficies con hielo.</p> <p>IT Non utilizzare l'ancoraggio su superfici ghiacciate.</p> <p>PT Não use a ancoragem em superfícies com gelo.</p>



Do not use the anchor on surfaces where there is algae or organic growth.

N'utilisez pas l'ancrage sur des surfaces où poussent des algues ou des matières organiques.

Verwenden Sie den Dachanker nicht auf Oberflächen mit Algen- oder Pflanzenwachstum.

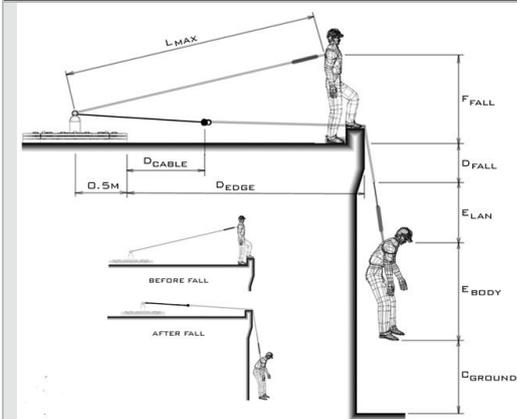
Gebruik het anker niet op een ondergrond met algen of organische begroeiing.

No utilice el anclaje en superficies con algas o plantas.

Non utilizzare l'ancoraggio su superfici su cui crescano alghe o altro materiale organico.

Não use a ancoragem em superfícies onde haja algas ou crescimentos orgânicos.

Ground clearance



L_{Max} = Maximum length of lanyard

F_{Fall} = 1.5 m free fall See note 1

D_{Edge} = Distance to fall edge (minimum 2.5 m)

D_{Fall} = D_{CABLE} See note 2

D_{Anchor} = Maximum allowable displacement 1.0 m

E_{Lan} = Maximum deployment of lanyard energy absorber (0.75 m based on 1.5 m free fall)

E_{Body} = 2 m extension of body and harness

C_{Ground} = 1 m clearance below the feet of the user

$$\text{Ground clearance} = D_{\text{Fall}} + E_{\text{Lan}} + E_{\text{Body}} + C_{\text{Ground}}$$

¹ Maximum permissible free fall distance for a User weighing 100 kg is 2.5 m.

² For free fall distance greater than 1.5 m D_{Fall} becomes: $D_{\text{Fall}} = D_{\text{CABLE}} + L_{\text{Max}} - D_{\text{Edge}} + 0.5$

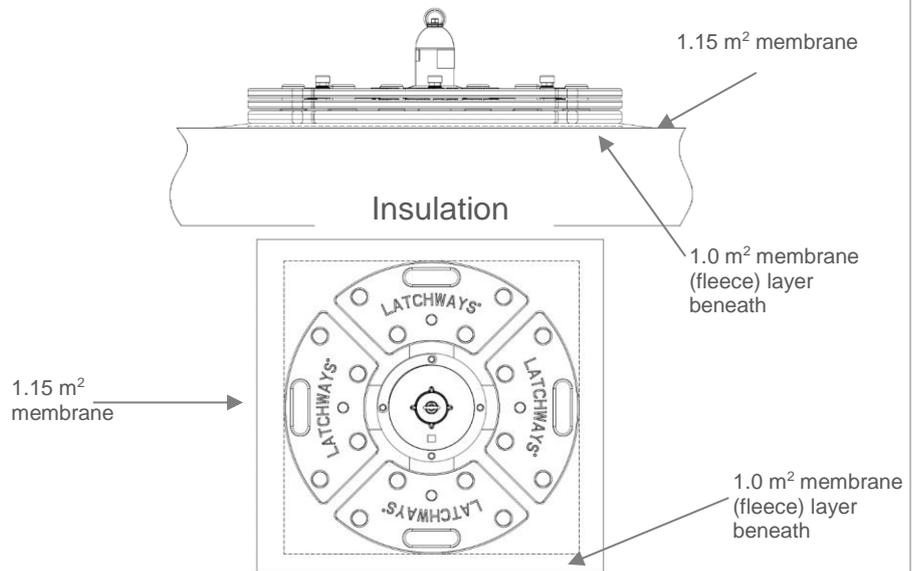
The minimum ground clearance required is 6 m for all roof types based on the above calculation.

NOTES:

The above ground clearance allows for the cable displacement that included displacement of the freestanding anchor device and the extension of lanyard energy absorber (0.75 m), which is based on a free fall distance of 1.5 m.

Installation on PVC/TPO membrane roofing

Where membrane manufacturers recommend that the anchor device shall be installed over an additional sacrificial layer of membrane.



Approved roofing types		Flat	5°
Concrete		✓	✓
Single ply membrane		✓	✓
Bitumen membrane		✓	✓

Typical components for use with FSCFp HLL's

For installation refer to 85000-99 instruction document

End anchors and standard Intermediate cable guides	
P. No. 85030-00	Overhead system intermediate cable guide component
	 <ul style="list-style-type: none"> • 316 Stainless steel
	 <ul style="list-style-type: none"> • Ultimate Static strength > 50 kN
P.No. 85041-00	
	 <ul style="list-style-type: none"> • 316 Stainless steel
	 <ul style="list-style-type: none"> • Ultimate Static strength > 45 kN

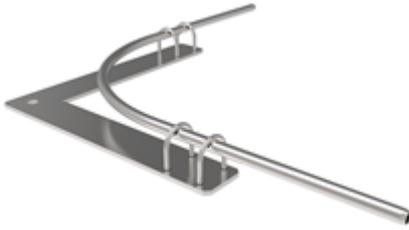
Swage components

P. No. 85025-00	Swage connection slippage indicator
	 <ul style="list-style-type: none"> • 316 Stainless steel

Swage components

P. No. 85160-00		R/H threaded swage
P. No. 85162-00		L/H Threaded swage
		• 316 Stainless steel
		• Static strength (> 37 kN – 7 x 7). (> 43 kN -1 x 19).
P. No. 85161-00	Joining swage	
		• 316 Stainless steel
		• Static strength (> 37 kN – 7 x 7). (> 43 kN -1 x 19).
P. No. 85390-00	Line tenser disc, swage connection	
		• 316 Stainless steel
		• Static strength (> 37 kN – 7 x 7). (> 43 kN -1 x 19).
P. No. 85391-00	Swage connection to yoke	
		• 316 Stainless steel
		• Static strength (> 37 kN – 7 x 7). (> 43 kN -1 x 19).
P. No. 85020-00	Swage end entry terminal	

		<ul style="list-style-type: none"> Stainless steel 17/4 PH
		<ul style="list-style-type: none"> Static strength (> 37 kN – 7 x 7). (> 43 kN -1 x 19).

Intermediate cable guides and corner components		
P. No. 85130-00	Overhead system intermediate cable guide component	
		<ul style="list-style-type: none"> 316 Stainless steel
		<ul style="list-style-type: none"> Ultimate Static strength > 29 kN
P.No. 65012-00	Ø13MM	
P.No. 65018-00	Ø18MM	
		<ul style="list-style-type: none"> 316 Stainless steel
		<ul style="list-style-type: none"> Ultimate Static strength > 29 kN
P.No. 85060-00		
		<ul style="list-style-type: none"> 316 Stainless steel
		<ul style="list-style-type: none"> Ultimate Static strength > 29 kN

Mobile anchor devices		
P. No. 85085-00 Removable Transfastener	P.No. 85080-00 Standard Transfastener	
		

Revision history

Reference	Date issued	Revision
RFEA5691	Jan-2021	-10