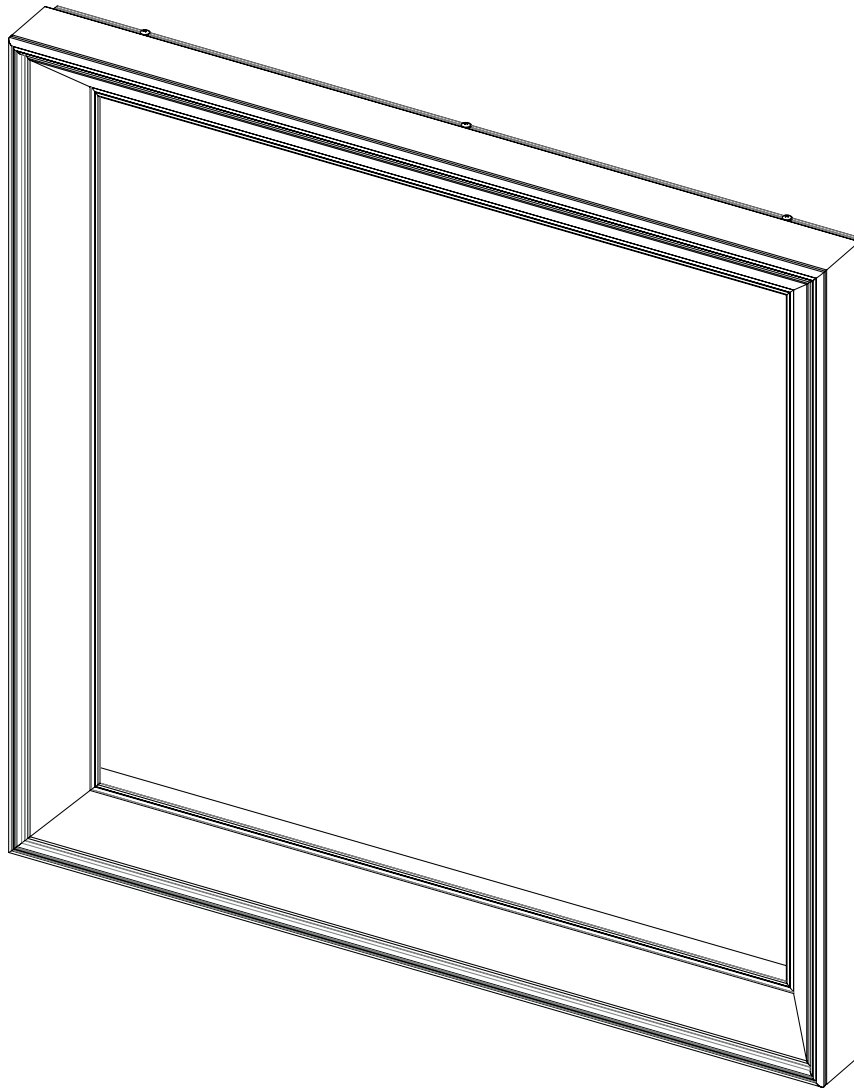


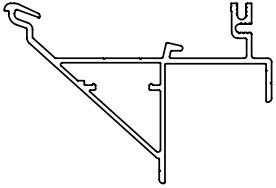


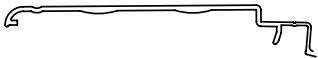
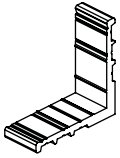


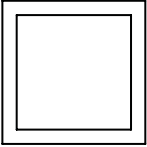
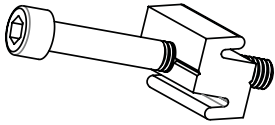
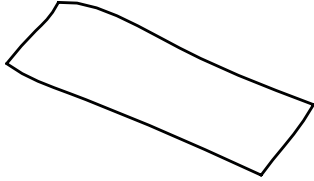
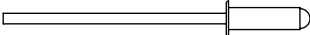

COMHANHOLLAND
— ALUMINIUM —



BillBoardFlex®

Montage instructions

Art.no.	Part/order unit	Section	Length/quantity
131200	Tension frame profile • length 6100 [mm]		• $2 \times H + 2 \times W$ [mm]
130110	Stretching profile • length 1500 [mm]		$2 \times (H-45) + 2 \times (B-45)$ [mm] • $\frac{\quad}{1500}$ [mm] (round up)
130115	Clamp profile • length 6100 [mm]		$2 \times (H-45) + 2 \times (B-45)$ [mm] • $\frac{\quad}{1500}$ [mm] (round up)
130790 130792 (anod)	Cover profile • length 6100 [mm]		• $2 \times H + 2 \times B$ [mm]
131201	Cornerconnector 25 [mm]		• 4X

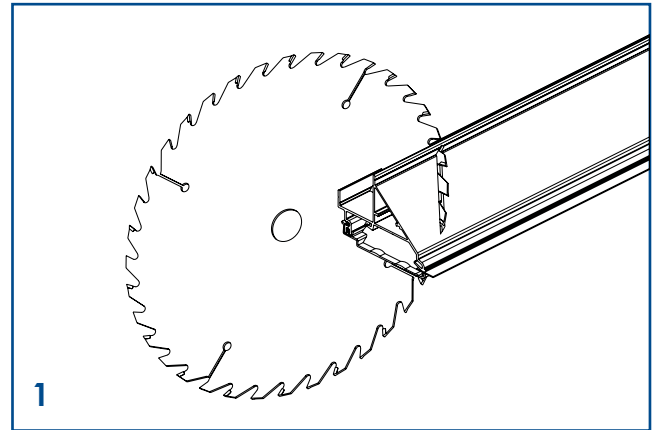
Art.no.	Part/order unit	Section	Length/quantity
107120	Rectangular tube 40 x 40 x 4 [mm] • length 6100 [mm]		<ul style="list-style-type: none"> • $2 \times (B / 1400 \text{ [mm]} + 1)$ (round up)
130140 130740	Tension set: <ul style="list-style-type: none"> • Tension block • Tension bolt (stainless steel) 		<ul style="list-style-type: none"> • See table 1: tension set
	Fabric		
	Rivets alu 4 x 8 [mm] alu 5 x 6 [mm] alu 5 x 8 [mm] alu 5 x 12 [mm] alu 5 x 16 [mm] stainless steel 5 x 16 [mm]		If the illuminated sign is to be welded, only aluminium rivets 4 x 8 (mm) required for attaching to the rear wall.
130750	Stainless steel sheet-metal screws		The screws are required for assembling the cover and hinge profile with a centre to centre distance of 390 [mm].

Art.no.	Part/order unit	Section	Length/quantity
	<p>Table 1: tension set</p> <p>The stretching profiles are 1500 [mm] long with holes drilled centre to centre 175 [mm]. Every piece of the stretching profile therefore has 9 holes.</p>	<ul style="list-style-type: none">• At height H to 700 [mm]:• At height H 700 - 1500 [mm]:• At height H from 1500 [mm]:	<ul style="list-style-type: none">• 3 per stretching profile• 5 per stretching profile• 9 per stretching profile

Cutting the profiles

Cutting dimensions

- A template containing all cutting measurements can be found in figure 17.
- The stretching and clamp profile is supplied in lengths of 1500 [mm]. The attachment outlines how measurements of pieces of residual length can be calculated (the residual length is required in order to be able to properly stretch the fabric over each side).



Cutting a tension frame and cover profile

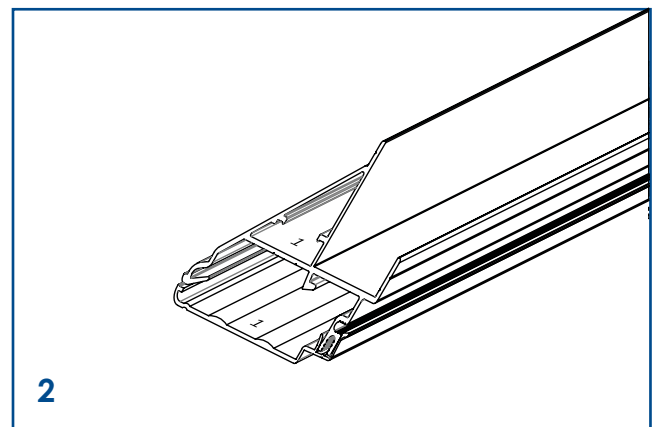
- Mount the cover profile on the tension frame profile using a few stainless steel sheet-metal screws 4.8 x 13 [mm].
- Make sure that the screws are not cut by the mitre saw.
- Mitre cut the tension frame profile together with the cover profile.

Aluminium filler plate

- Use an aluminium filler plate 300 x 20 x 1 [mm] at the location of the cut to compensate for the thickness of the fabric to be stretched.

Mark profiles

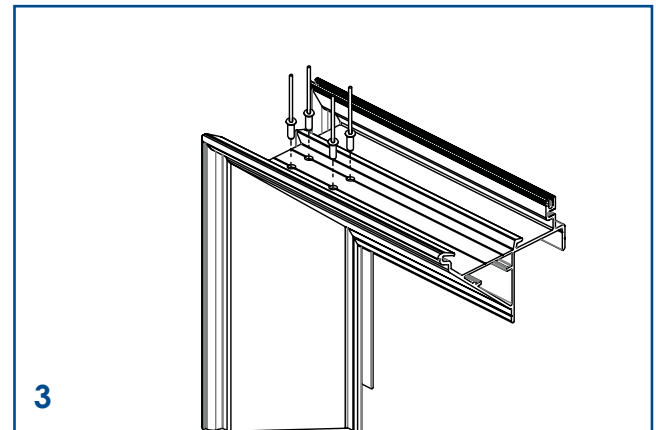
- Mark both profiles after cutting with a number, so that corresponding profiles remain recognizable (as indicated by the 1).



Rivets

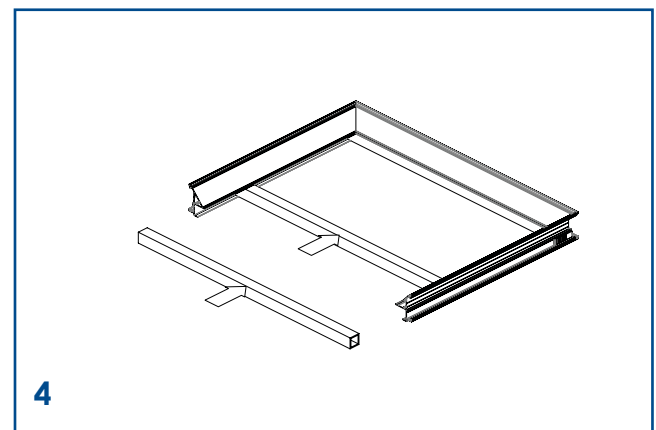
Mitre angle riveting

- For a strong and tightly fitting mitre at 15 and 50 [mm], drill $\varnothing 5.1$ [mm] holes from the mitre angle.
- Fix each corner piece with 8 stainless steel rivets 5 x 16 [mm] (4 nails per side).



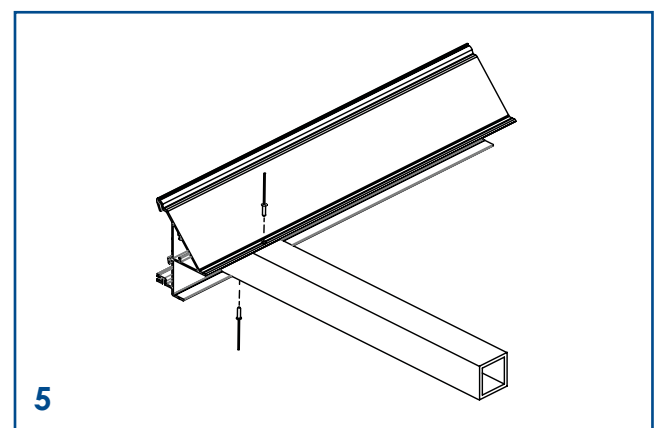
Mounting reinforcement profiles

- The distance between the reinforcement profiles is approximately 1200 [mm].



Mounting reinforcement profiles

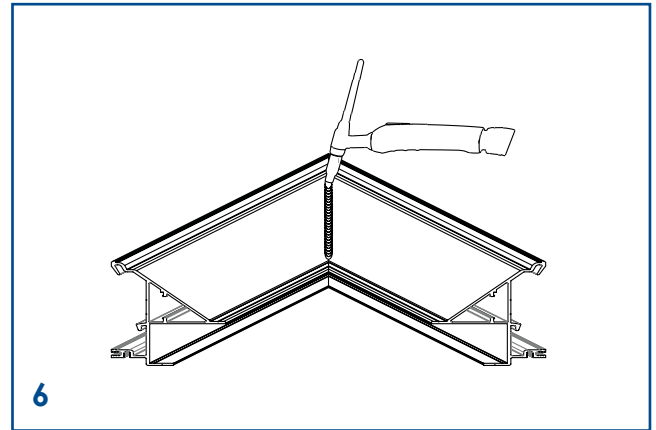
- Mount the reinforcement profiles by securing them at each end at the top with aluminium rivets 5 x 8 [mm] and at the bottom with aluminium rivets 5 x 16 [mm].



Welding

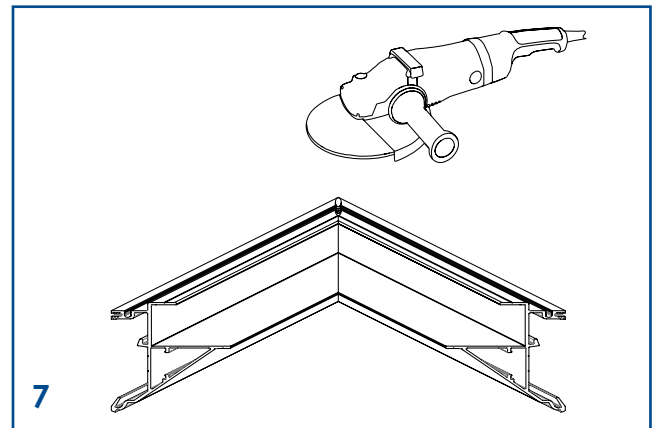
Welding inner tension frame

- Make a joint across the slanting side of the tension frame profile mitre.



Welding the back of the tension frame

- Make a joint across the short side of the tension frame profile mitre at the back.
- Grind the joint flat.

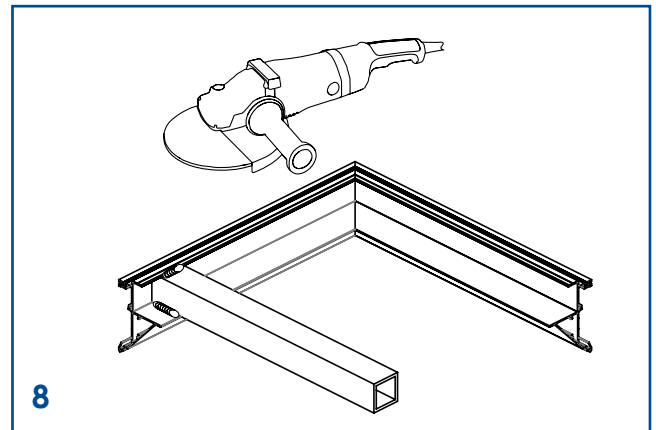


Measuring diagonally

For the purpose of fitting the tension frame on the illuminated sign, it is necessary to measure the tensioning frame diagonally for squareness and to correct it if necessary before the reinforcing profiles are mounted.

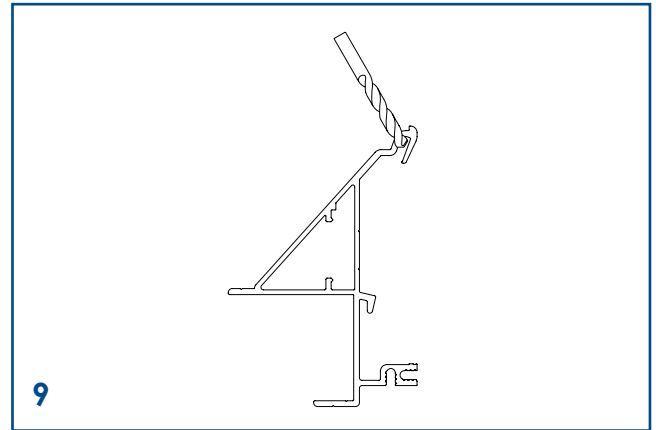
Reinforcement tension frame welding

- On one side, weld the end of the reinforcement profile to the tension frame profile flange (length of join about 30 [mm]).
- Weld the other end of the reinforcement profile on the opposite side in the same way to the tension frame profile flange (for improvement of torsional stiffness).
- Weld the back of the reinforcement profile at the rear side of the tension frame profile.
- Only grind the joints on the rear side of the tension frame profile surface.



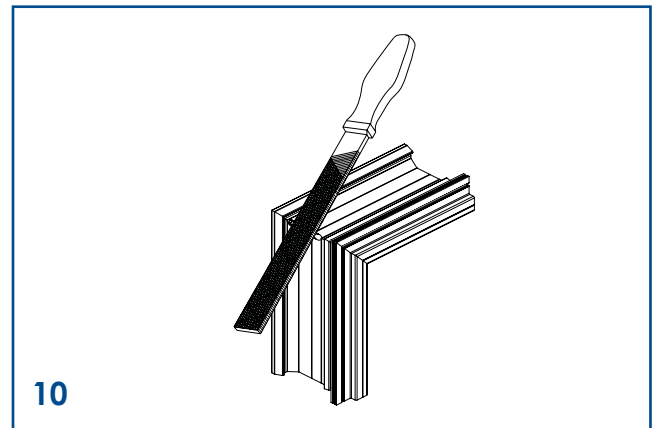
Holes for de-watering

- Drill a number of holes measuring $\varnothing 12$ [mm] with a centre to centre distance of 500 [mm] in the lower tension frame profile at the location indicated for de-watering of the stretching frame.



Rounding of mitre angles

- It is advisable to round the mitre angles of the tension frame in order to prevent damage to the fabric when tensioning the corners.

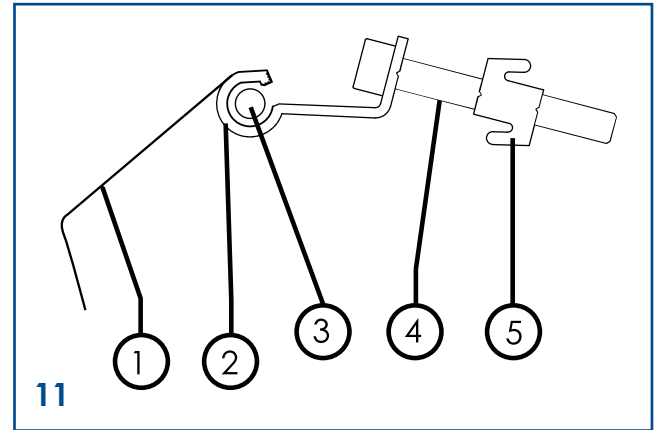


Spraying/painting tension frame white

- It is advisable to spray or roller the inside of the tension frame profile white in order to improve the light reflection.
- When using LEDs mounted on ACM rear wall (175 degree angle of radiation).

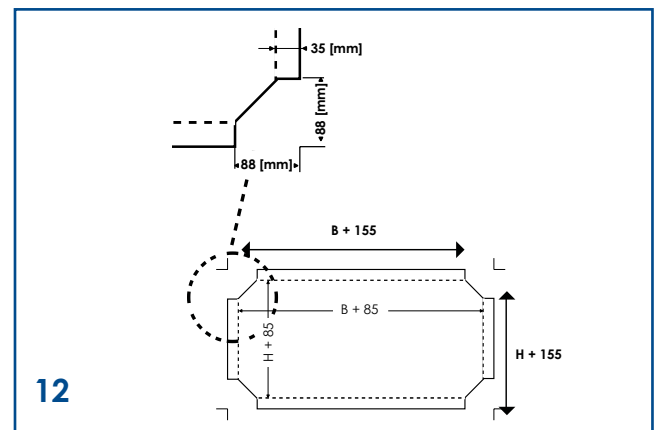
Tensioning the fabric

Parts	Art.no.
1. Fabric	
2. Stretching profile	130110
3. Clamp profile	130115
4. Stainless steel tension bolt M6 x 35 [mm]	130740
5. Tension block	130140



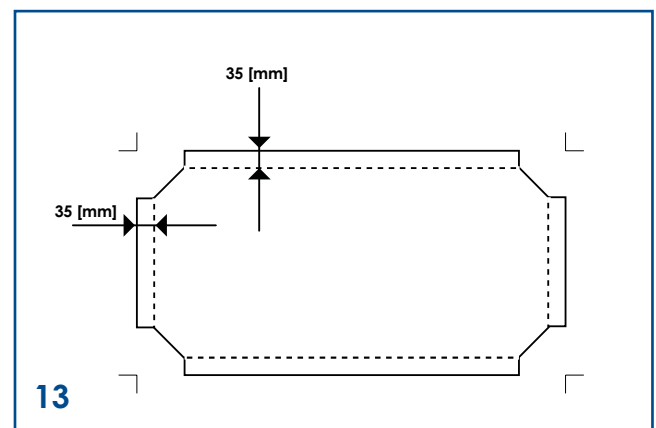
Cutting fabric

- Cut the fabric to size, assuming stretching frame outer dimensions of $W + 155$ [mm] and $H + 155$ [mm].
- Cut the tips as depicted in figure 12.



Folding line

- Draw a folding line at 35 [mm] from the margin of all sides or print the line with it.



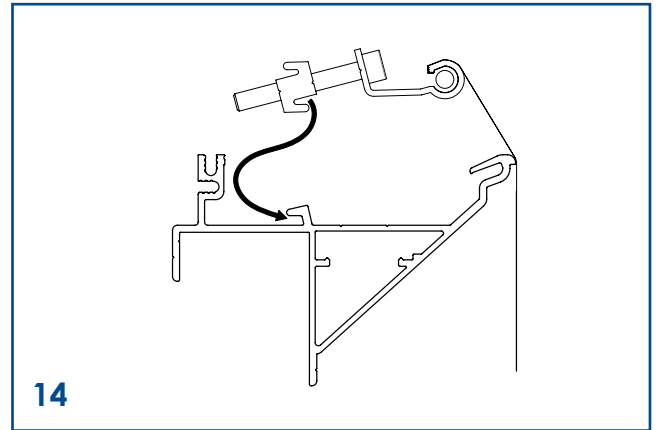
Attach the fabric to the tension frame

- Turn the fabric over and place it on the tension frame.

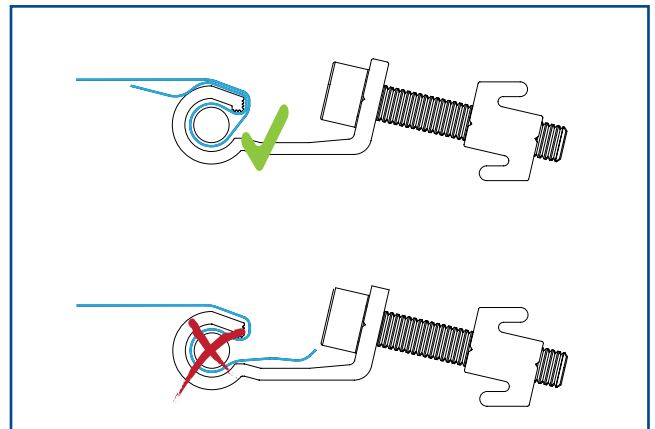
The number of tension sets required depends on the height of the illuminated sign:

- At height H to 700 [mm]: **3** per stretching profile
- At height H to 700 - 1500 [mm]: **5** per stretching profile
- At height H from 1500 [mm]: **9** per stretching profile

- Now mount the tension bolts and blocks by inserting the bolts into the selected holes in the stretching profile and screwing a tension block on each bolt (1 strike is enough).
- Then hook all the tension blocks behind the edge into the stretching profile.



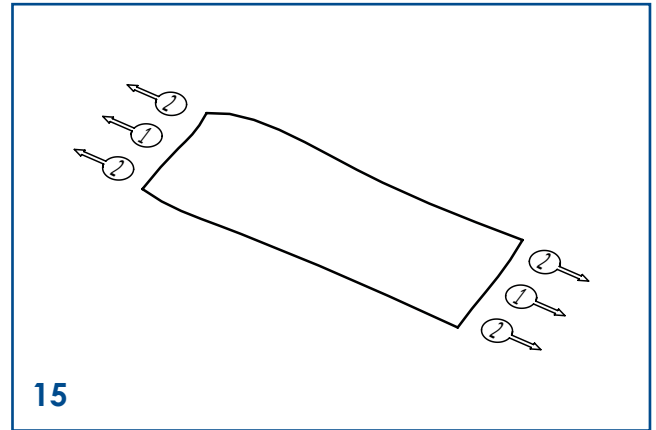
Screen attachment



Tensioning the fabric (short sides)

Method of pre-tensioning and tensioning the fabric:

- First stretch the short sides. Work from the centre to the sides (note the sequence numbers).



Tensioning the fabric (long sides)

- Stretch the long sides. Here too work from the centre to the sides (note the sequence numbers).

Tensioning

- Tension the fabric by first tightening the short sides, as in 15, and then, as in 16, by tightening the long sides.

