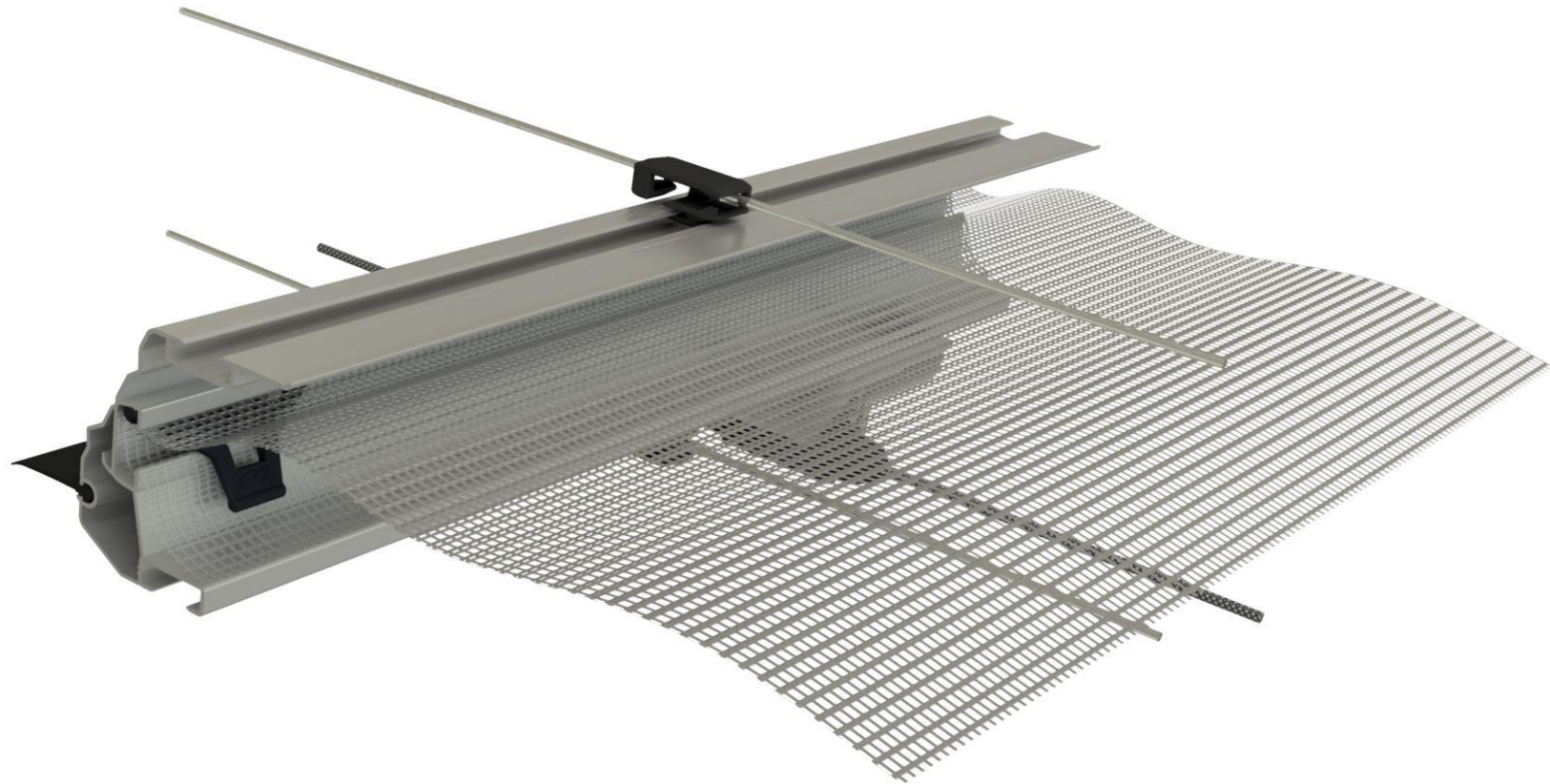


Manual - ValkScreenVision 1.0



Lower Screen

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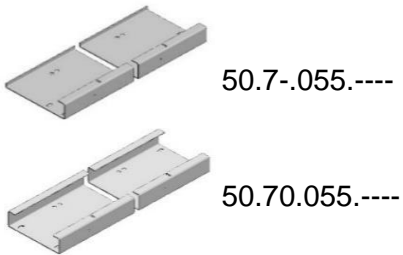
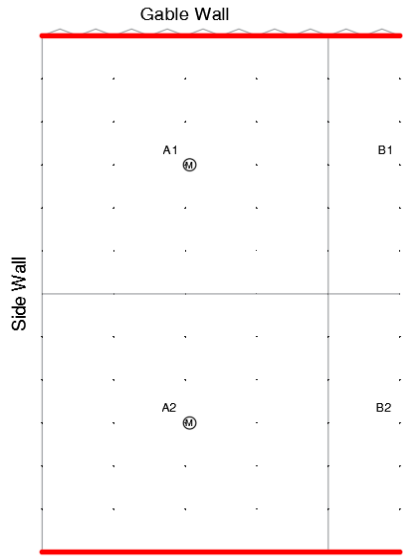
You have chosen a screen system from Van der Valk horti systems. This manual is a standard manual for specific installation drawings, see project drawings and quotation supplied separately. If you see a QR code in the manual, a movie is available with additional explanation. You can watch this movie by scanning the QR code.




- * This manual is not project specific.
- * This manual is not legally binding.
- * No right may be derived from this installation manual.
- * Consult the cloth and motor supplier manual for installation of their products.
- * The order of installation in this manual is carefully chosen, but could differ depending on the installation tools used.

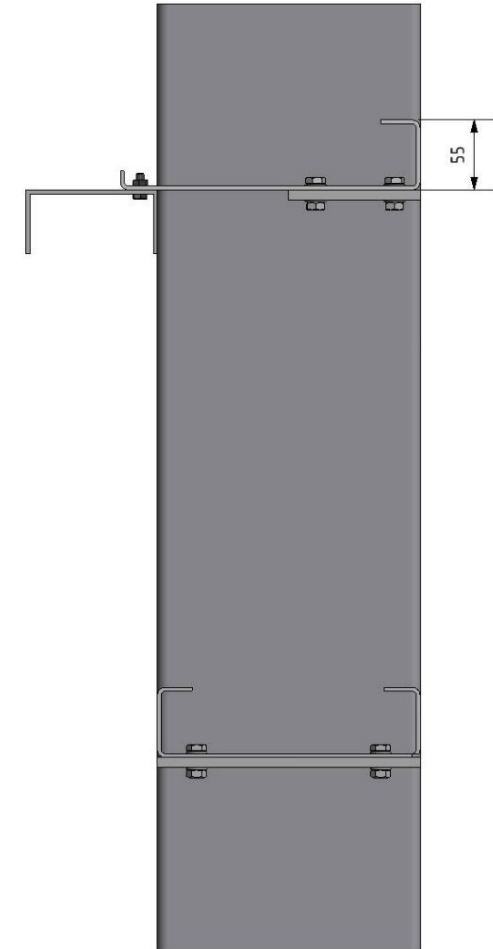
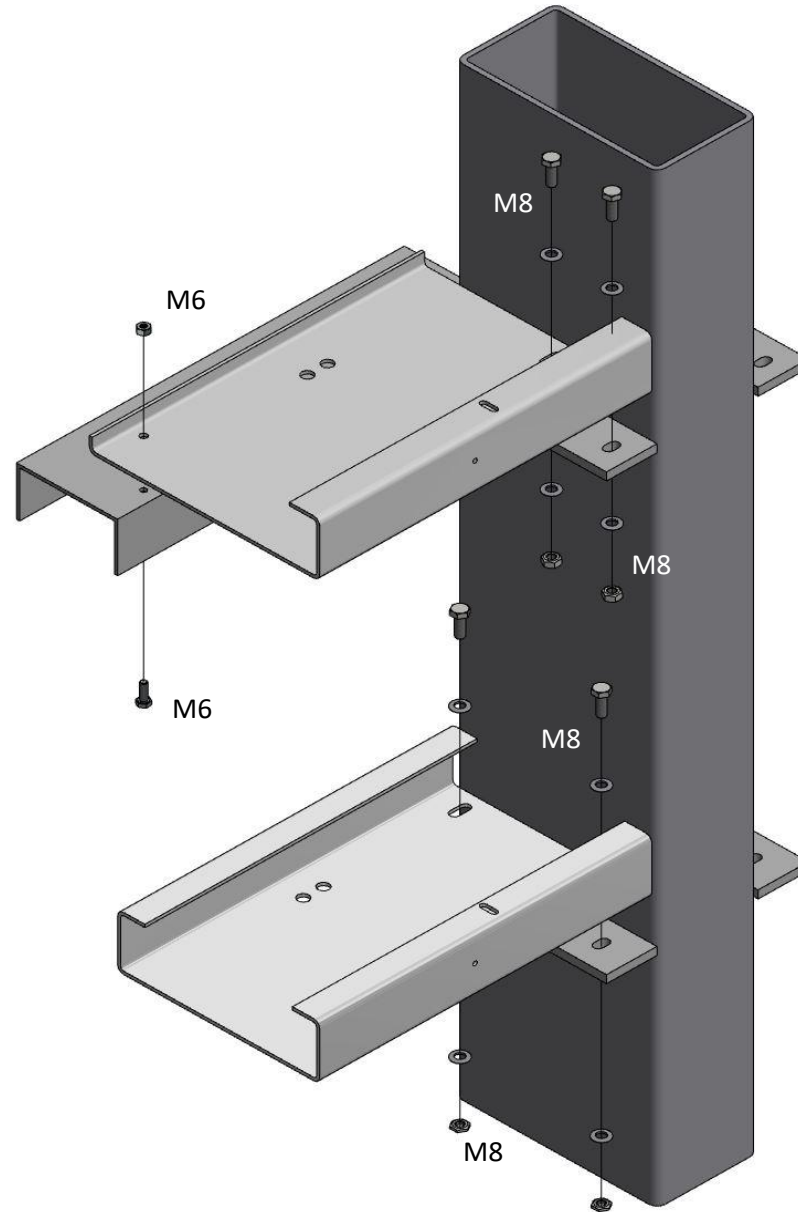


if you scan or click this QR-code you will be linked to the youtube playlist of all installation movies. you will find a specific QR-code at the page.

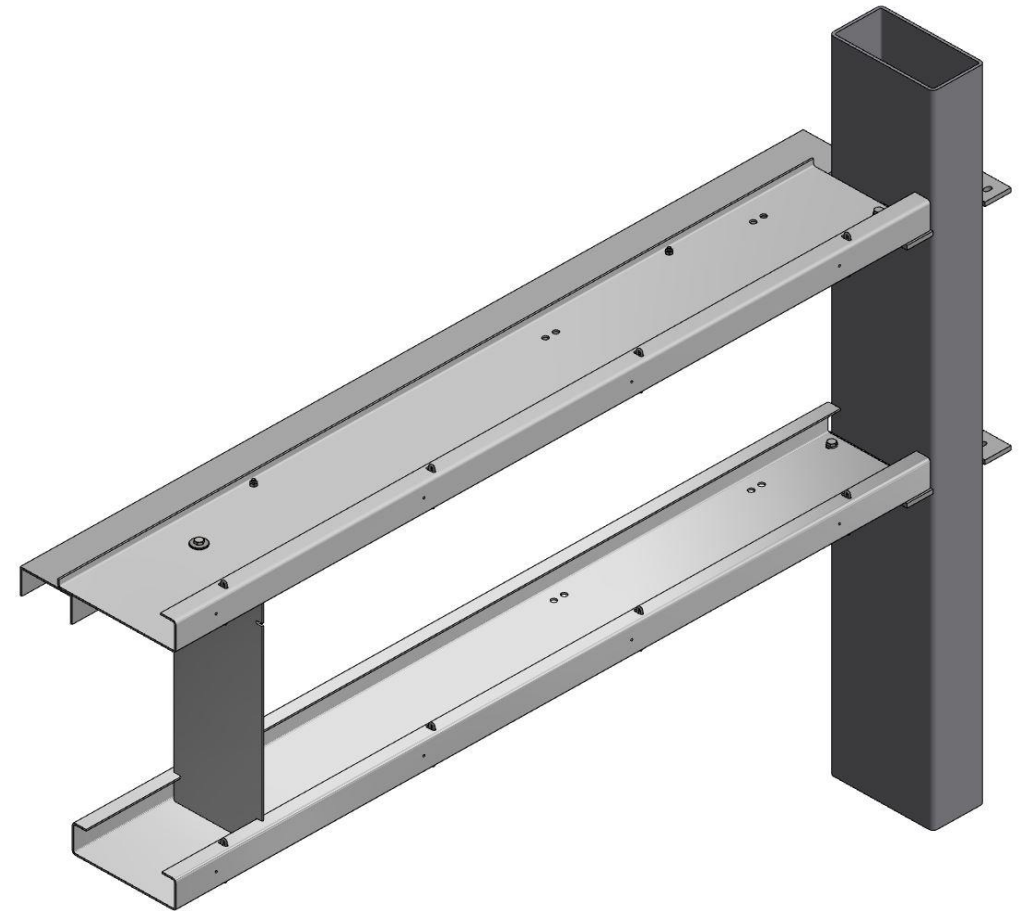
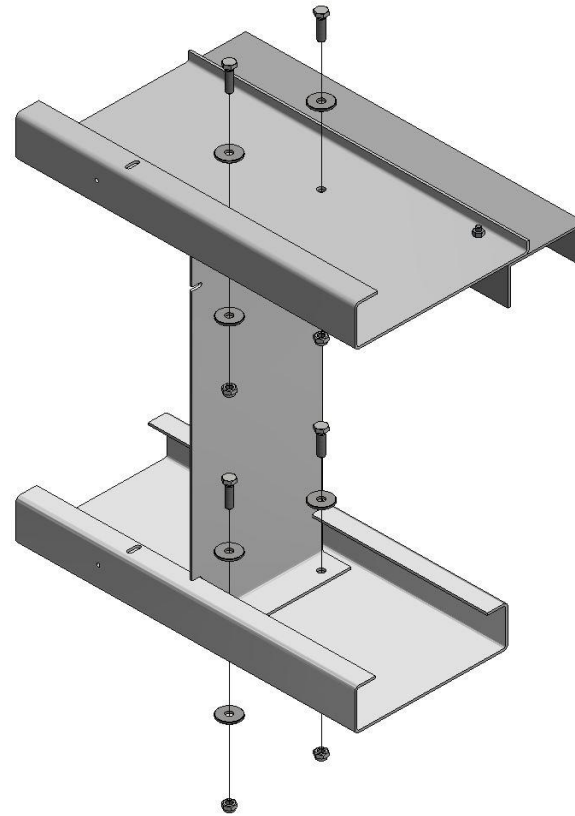
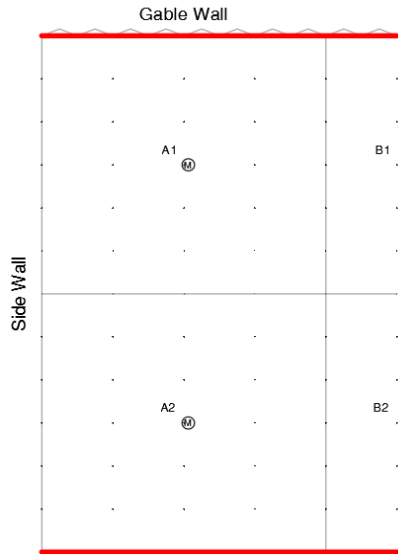
▶ Mounting screen plate



-  55.40.20 M8x20
-  55.40.05 M8
-  53.55.17 M8
-  55.30.16 M6x16
-  55.30.00 M6



Note: The top of the screen strip is equal to the bottom of the trellis top chord.



50.71.----



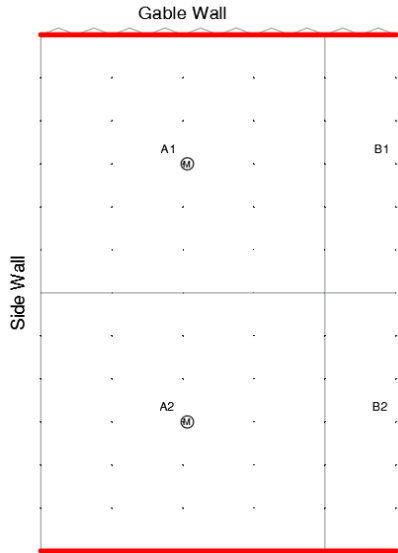
55.40.30 M8x20



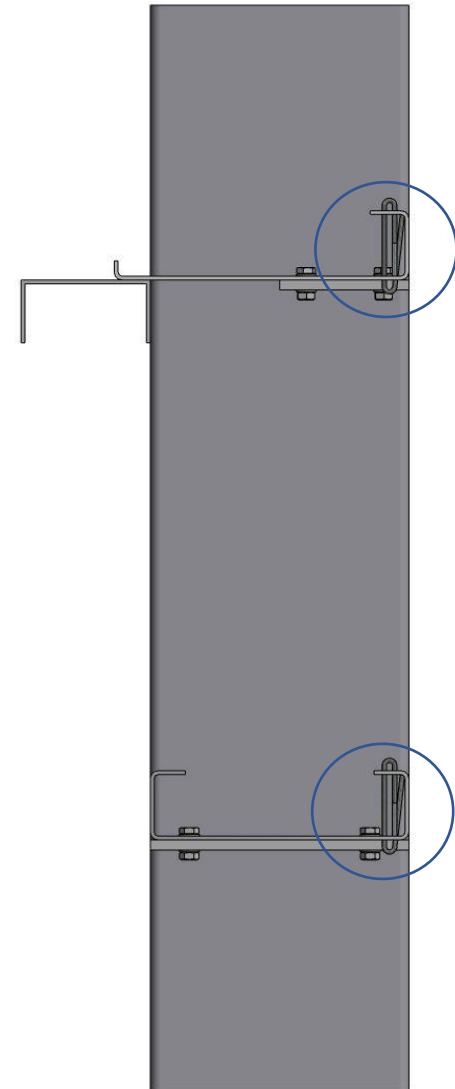
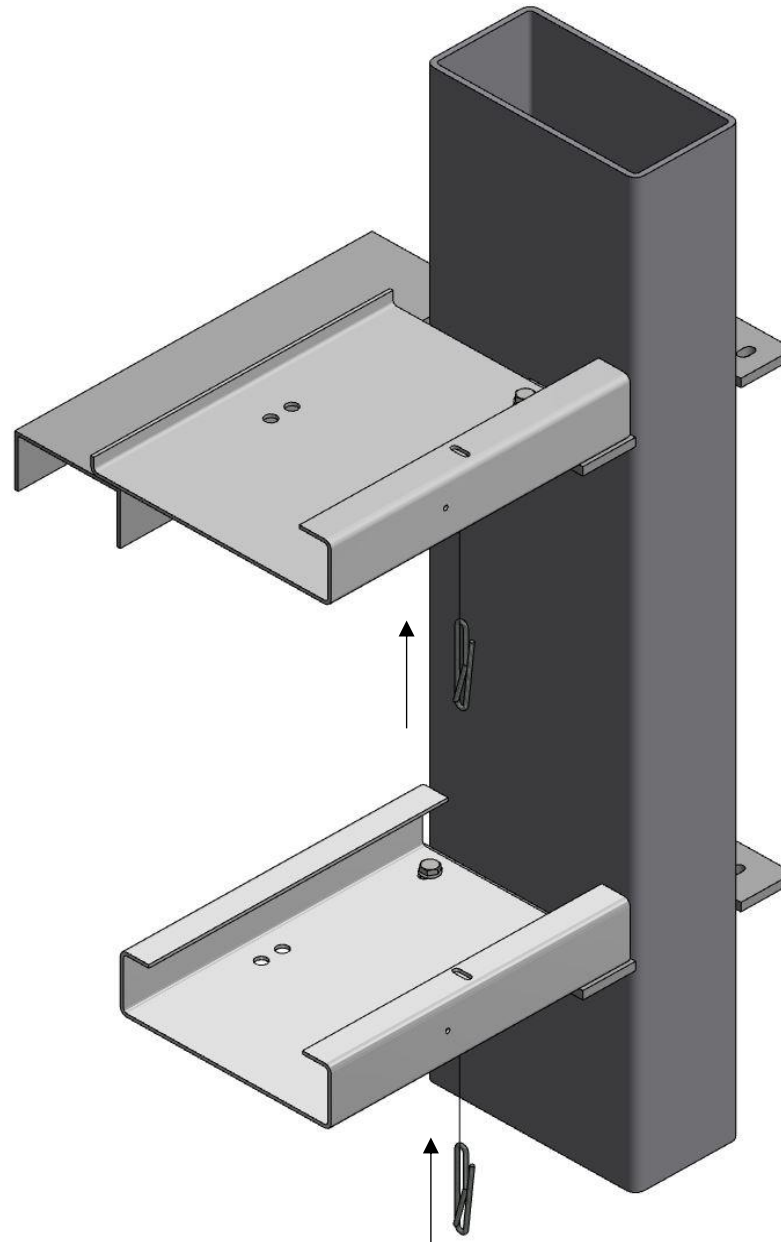
53.55.38 M8

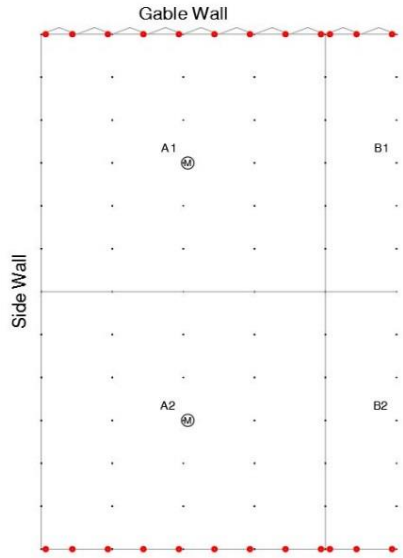


55.40.05 M8



45.81.85





44.81.30



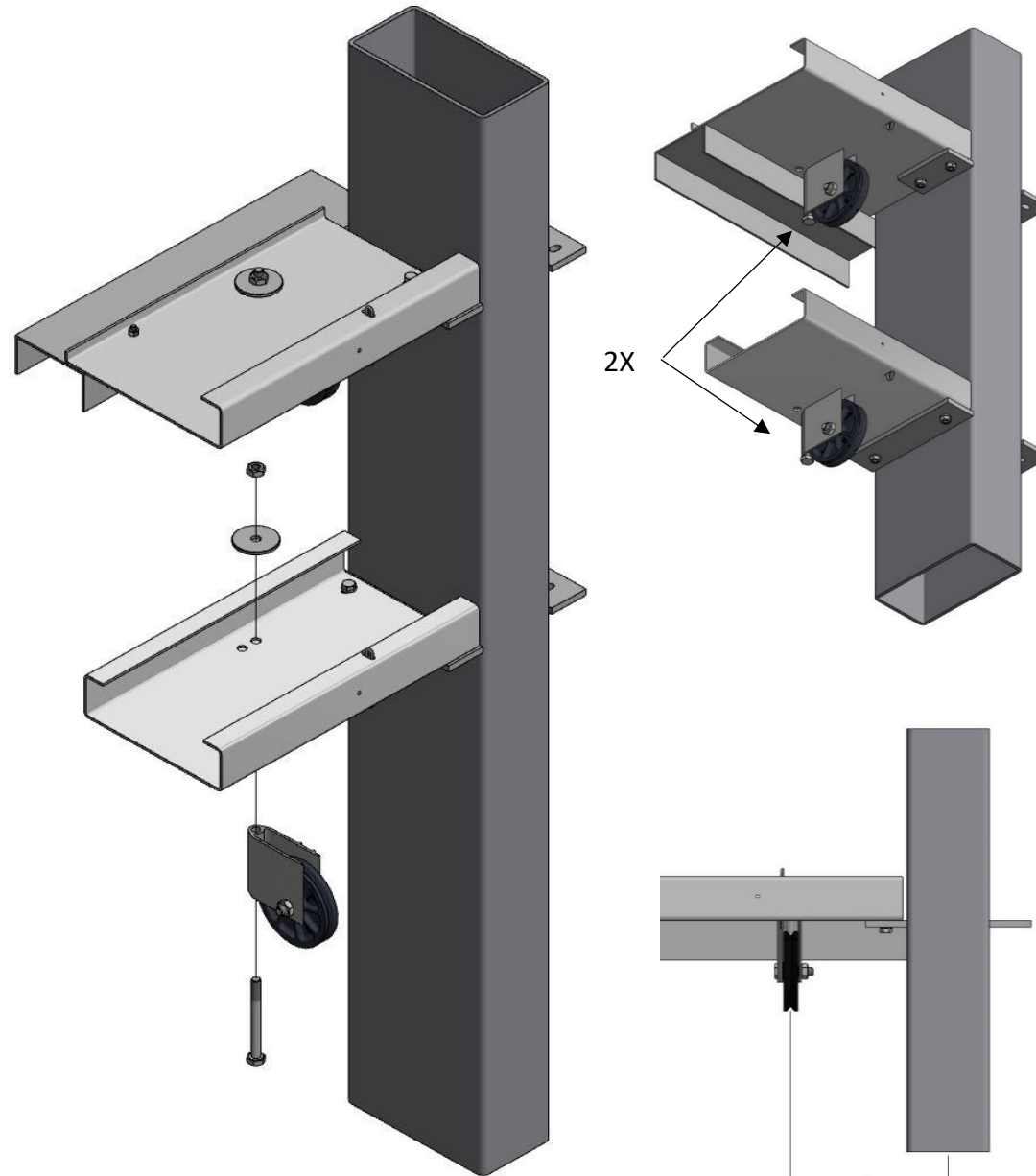
55.51.00 M10x100



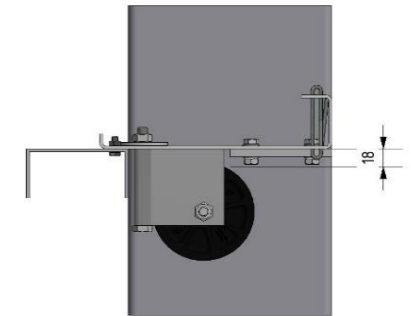
53.55.42 M10



55.50.00 M10

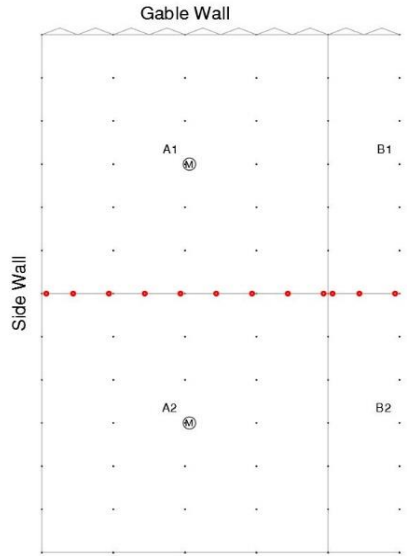


The screen plates are produced with 2 holes for the reversing wheels. Use 1 of the 2 holes.

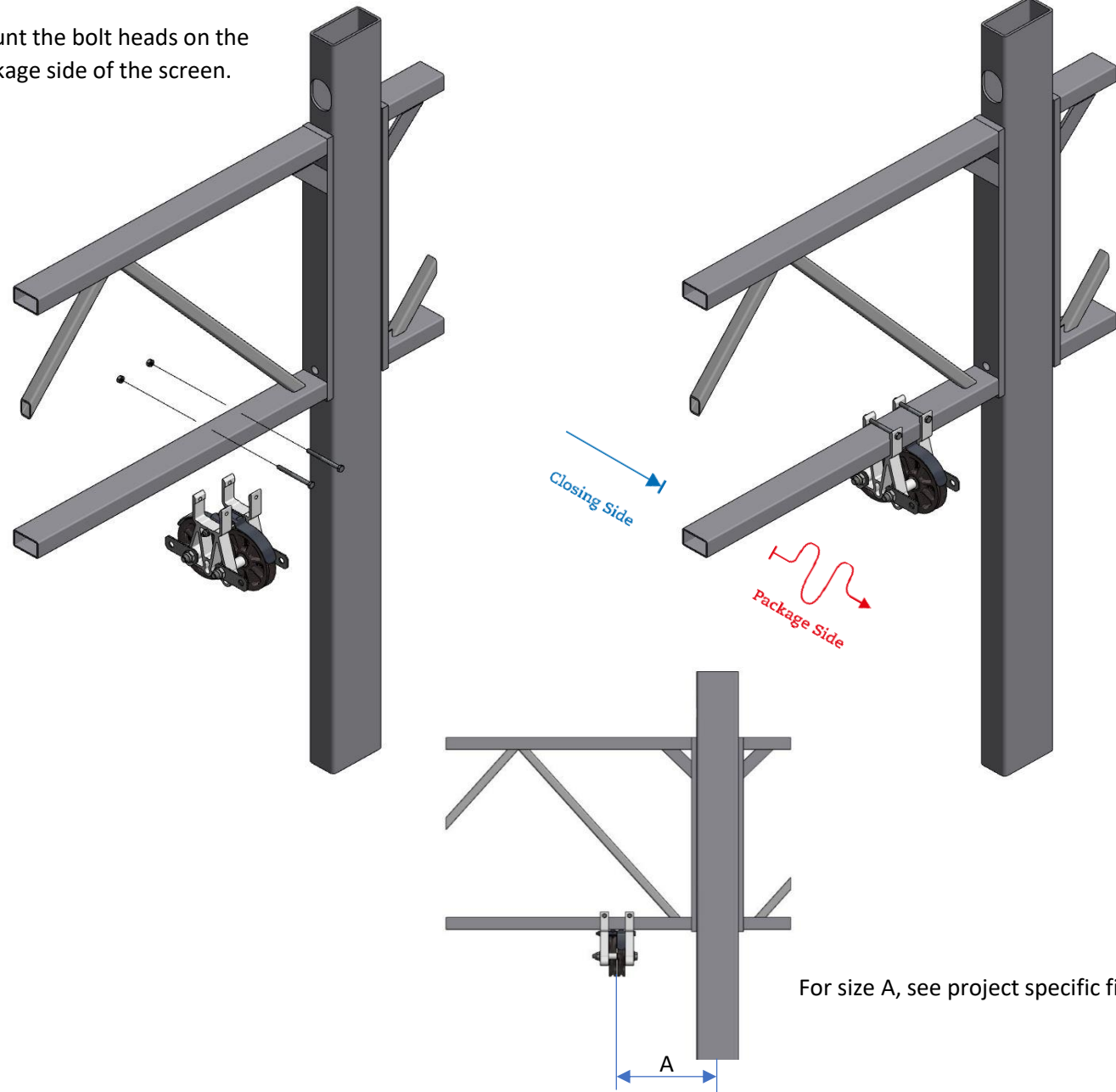


Note: When using the wire clip, the distance between the bottom of the screen plate and the pull wire is 18 mm.

For size A, see project specific file.



Mount the bolt heads on the package side of the screen.



(topcord width and height)
44.740.---.--- black

(topcord width and height)
44.750.---.--- gray

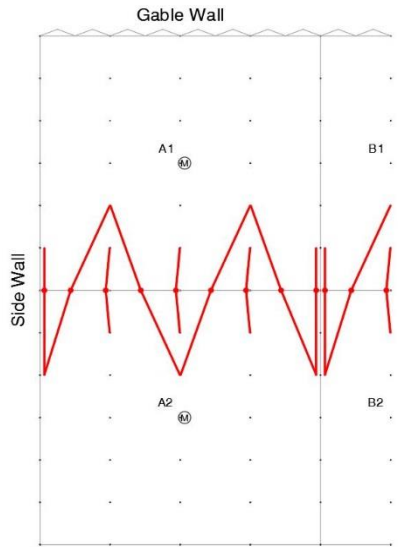


(trellis width + 15 mm)
55.30.--

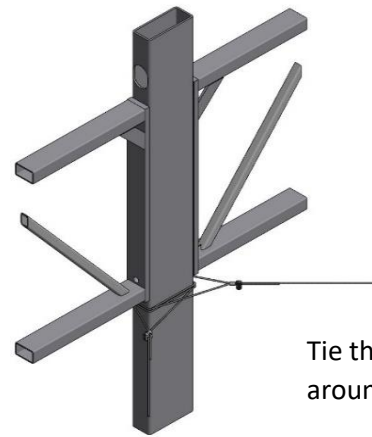


55.30.00

For size A, see project specific file.



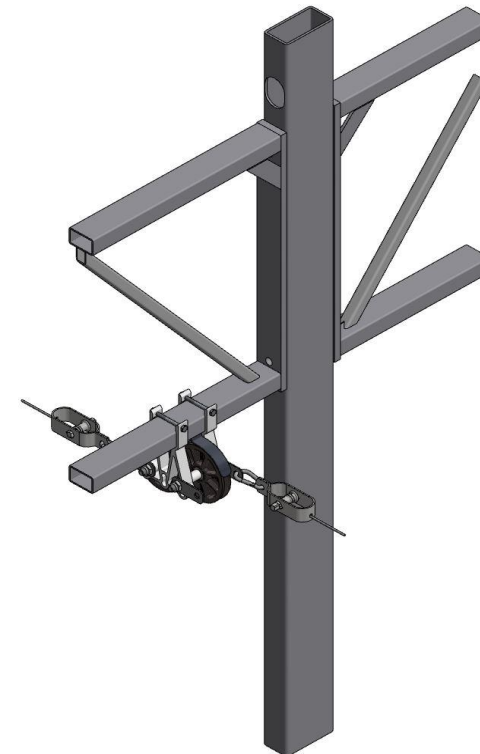
Bracing at the column:



Brace diagonally when the reversing wheel is close to the middle of the trellis.

Brace straight when the reversing wheel is close to the column.

Column:



Floating gutter:



48.10.17



48.80.40



48.80.12

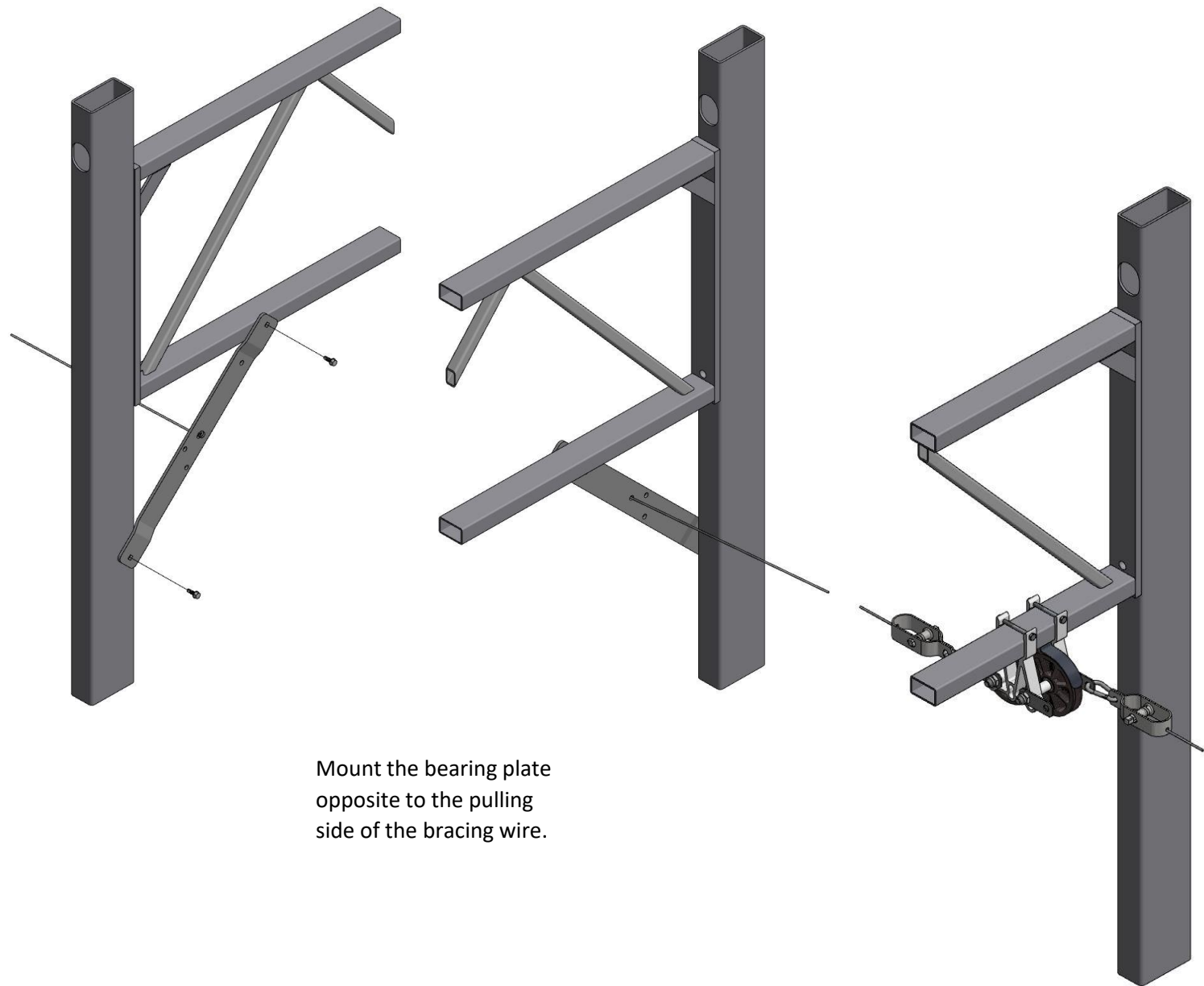
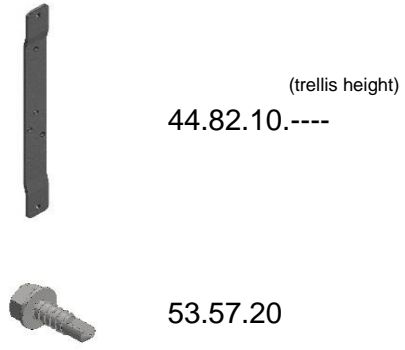
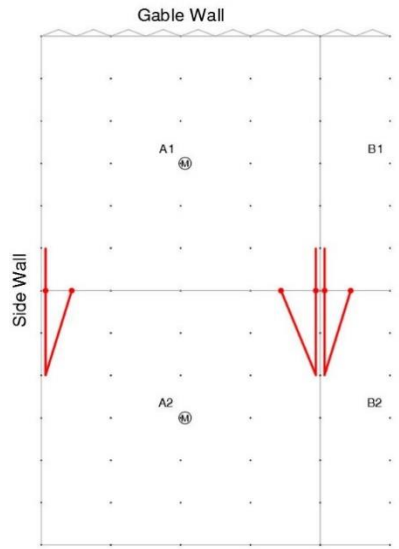


48.80.30



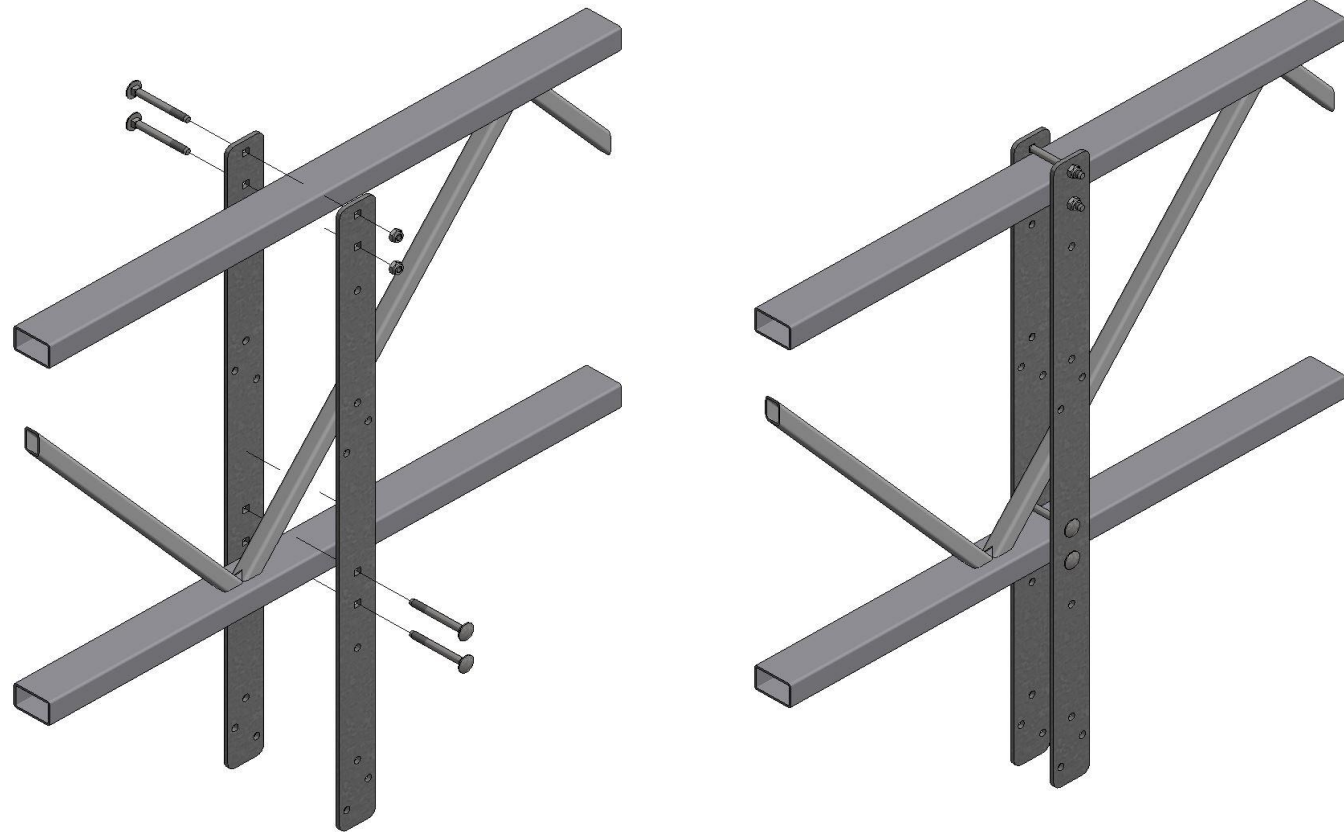
48.80.37

▶ Bracing of ValkReversingWheel at section ends



Mount the bearing plate
opposite to the pulling
side of the bracing wire.

See project drawing for position.



(trellis height)
44.82.11.----

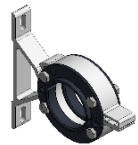


53.41.-- M8x--



55.40.05

See project drawing for position.



44.82.16



44.85.--



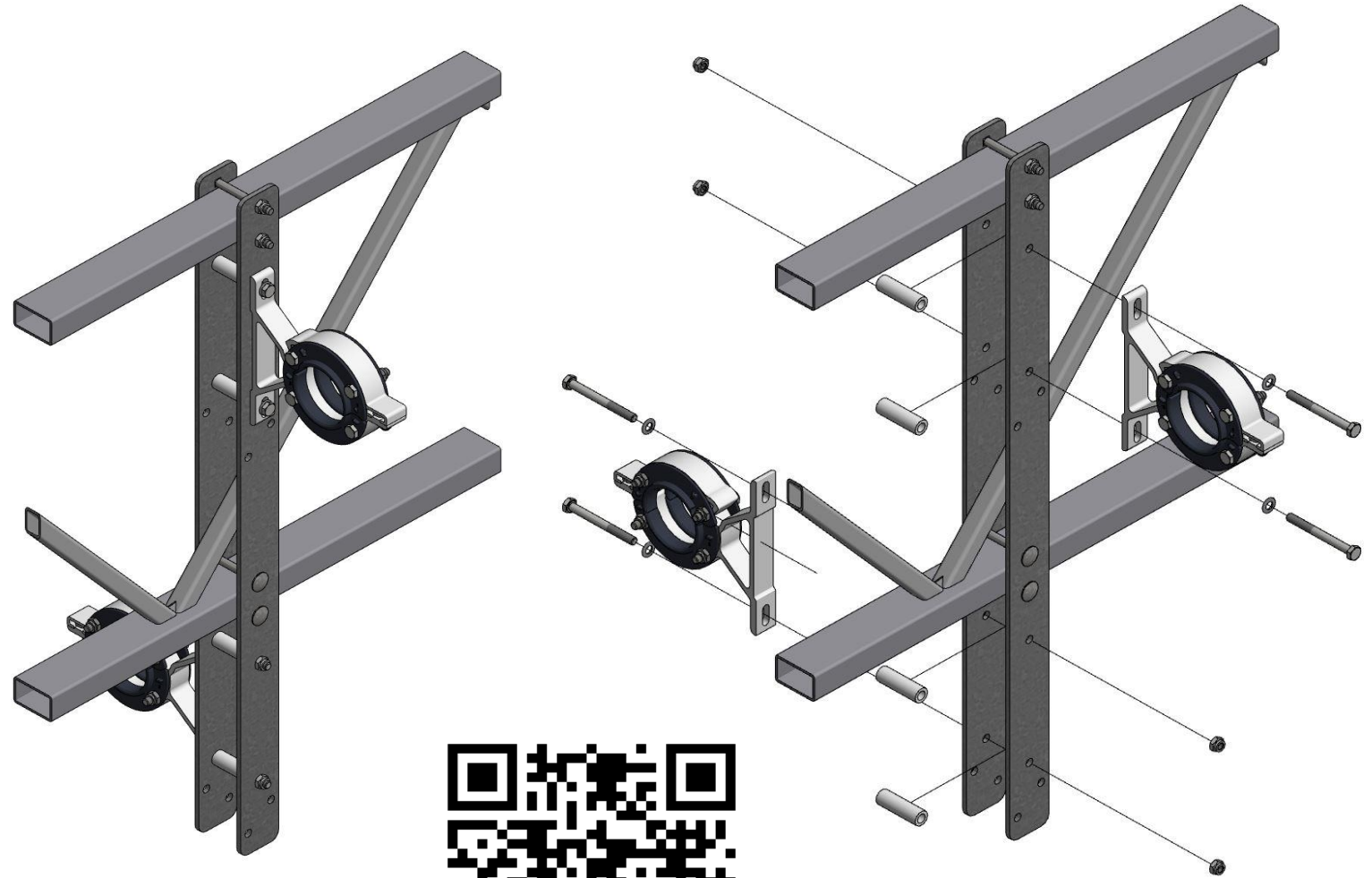
(trellis width +20 mm)
53.41.-- M8x--



53.55.17 M8



55.40.05 M8



▶ Bracing the ValkBearingBracket - Double bearing plate

See project drawing for position.



48.10.17



48.80.40



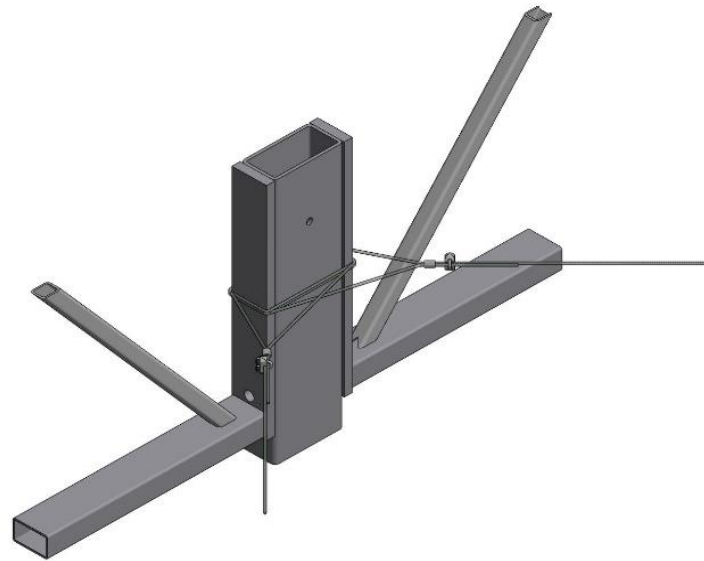
48.80.12



48.80.30

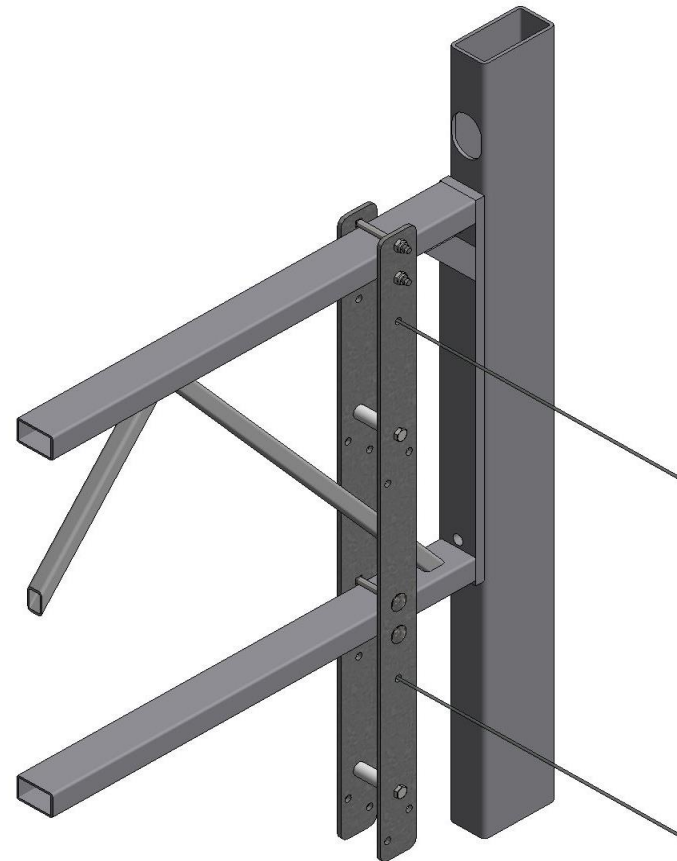


48.80.37



▶ Bracing of ValkBearingBracket - Double bearing plate at section ends

See project drawing for position.



(trellis height)
44.82.11.-----



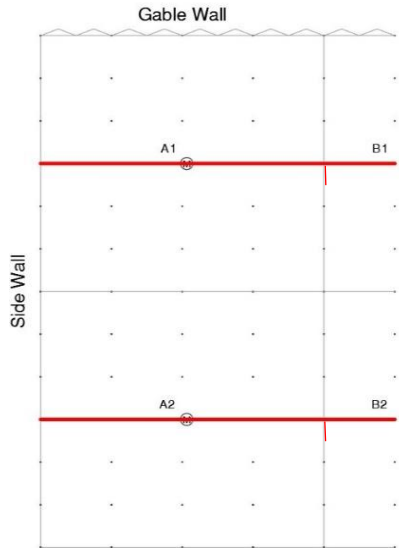
53.41.--



44.85.--



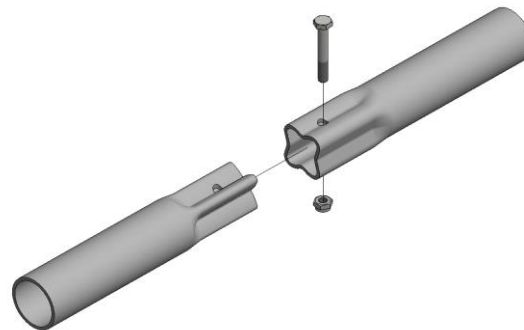
55.40.05



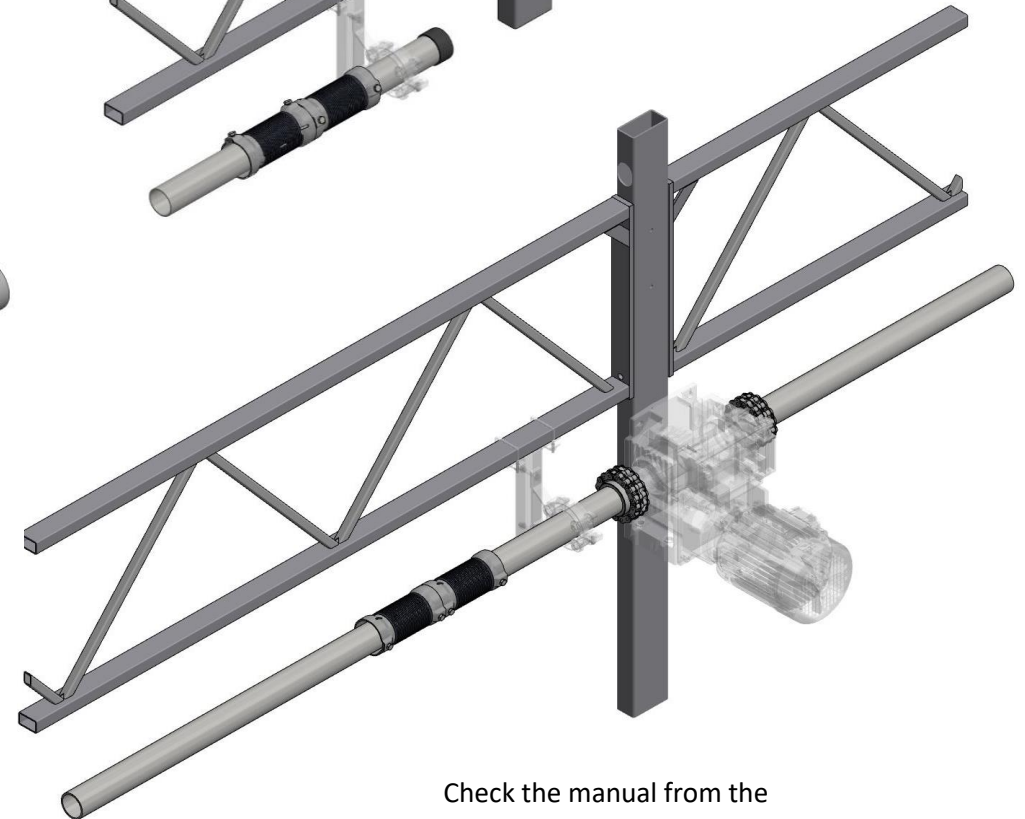
For tightening torque of the wire tensioner see chapter H.



At the section separation use a end cap.

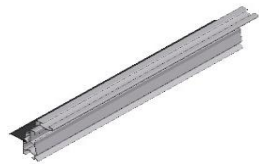
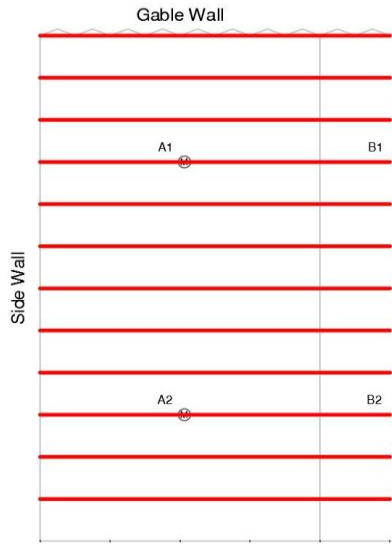


Attention: Slide the wire tensioner on the shaft before installing.

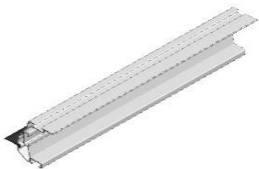


Check the manual from the drive supplier for how to install the motor.

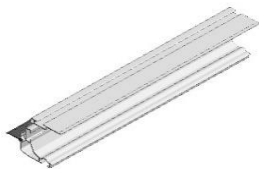
- 50.42.0-----
- 52.8--85-----
- 52.8--86-----
- 44.80.34-W
- 53.25.20 M8
- 55.40.16 M8x16
- 55.50.60 M10x60
- 55.50.05 M10
- 44.16.60



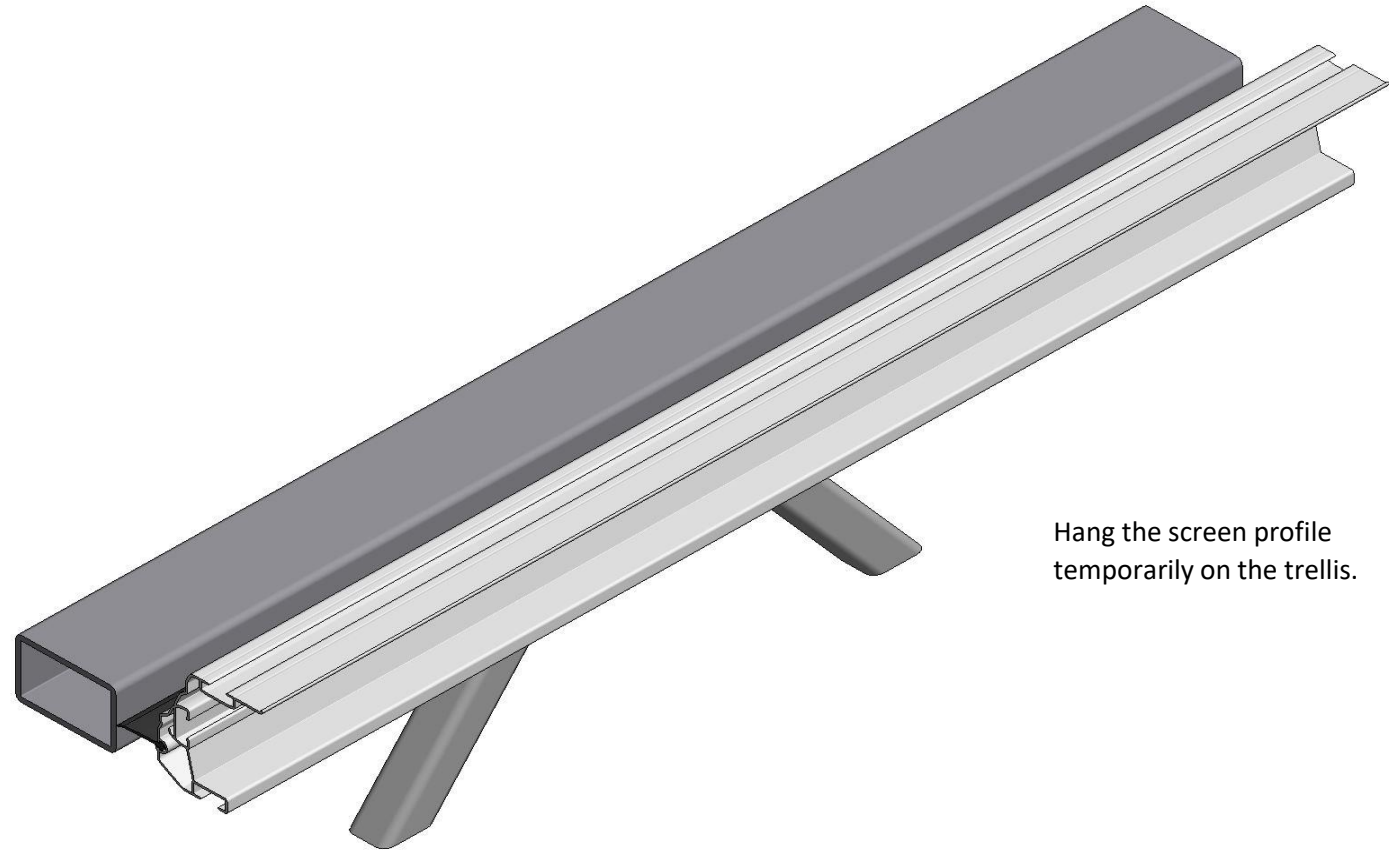
(profile length)
43.93.30,-----
VSV 22 mm



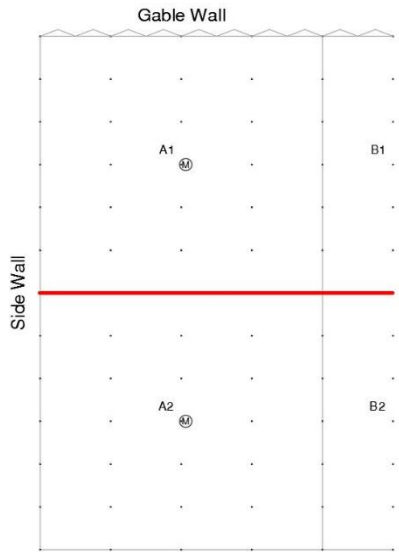
(profile length)
43.93.80,-----
VSV 35 mm



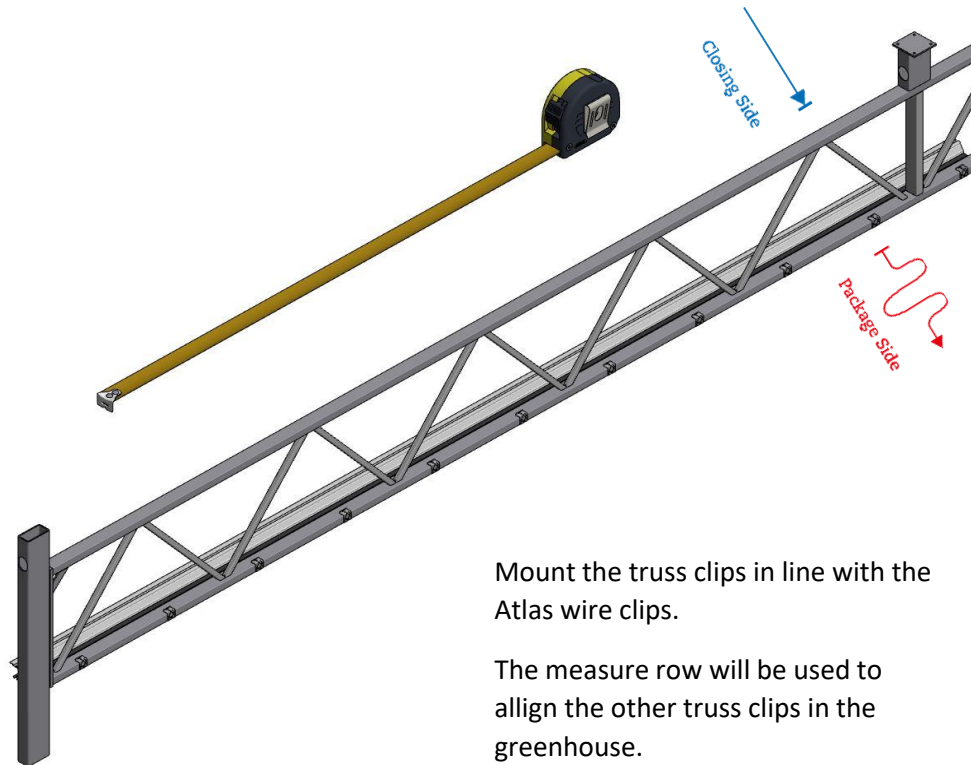
(profile length)
43.96.10,-----
VSV 50 mm



Hang the screen profile temporarily on the trellis.

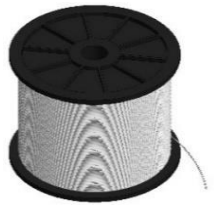
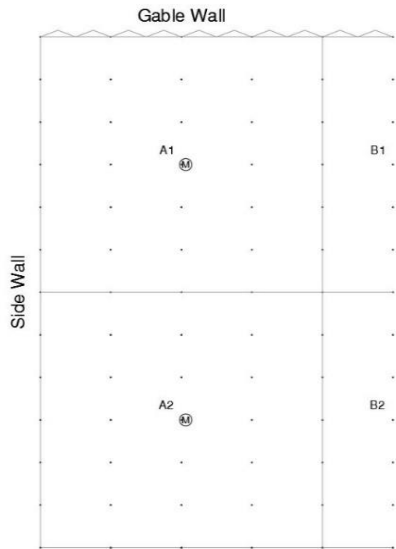


H + 2 mm
45.20.--

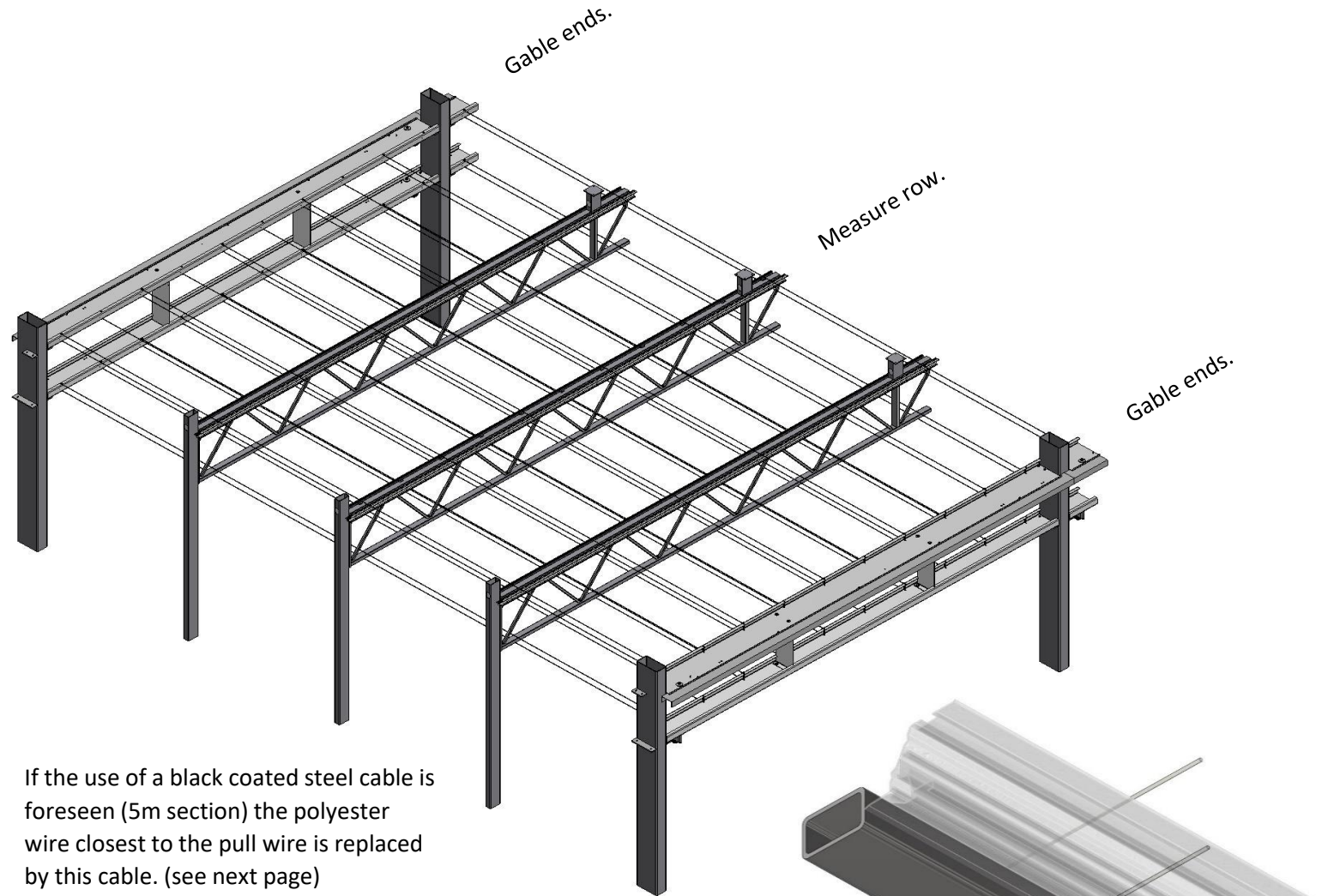


Mount the truss clips in line with the Atlas wire clips.

The measure row will be used to align the other truss clips in the greenhouse.



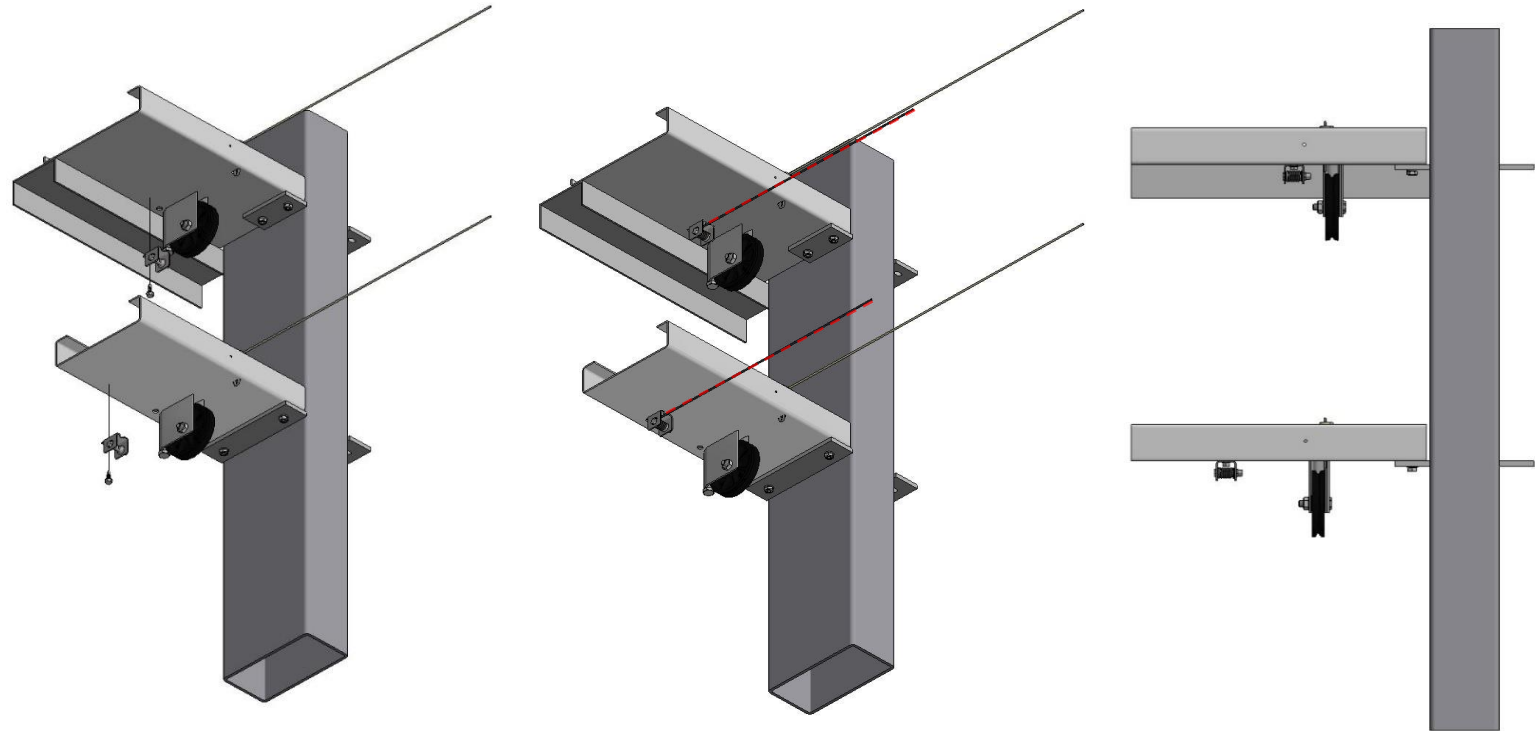
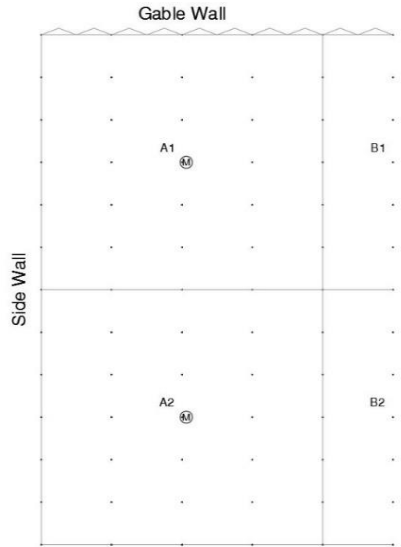
48.50.30



If the use of a black coated steel cable is foreseen (5m section) the polyester wire closest to the pull wire is replaced by this cable. (see next page)

"Click" the polyester wire in the truss clip at the measure row.

▶ Extra black coated steel support cable



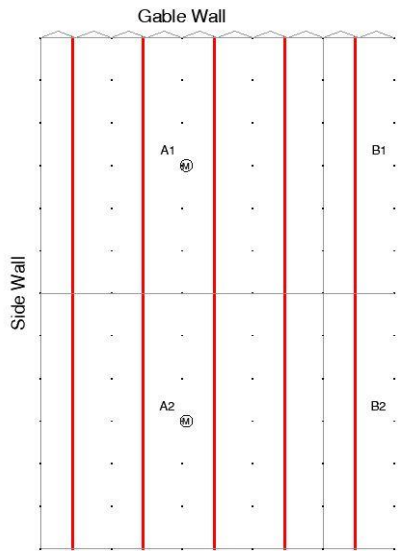
48.20.15



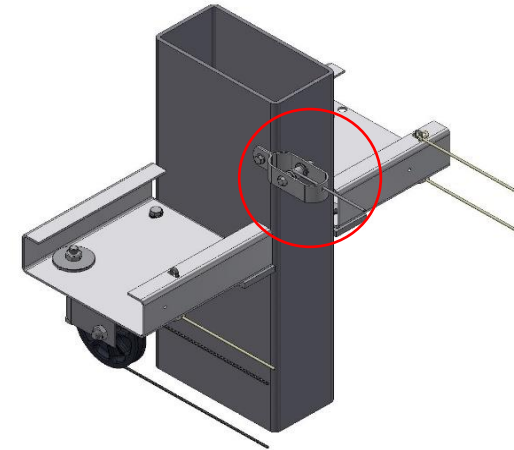
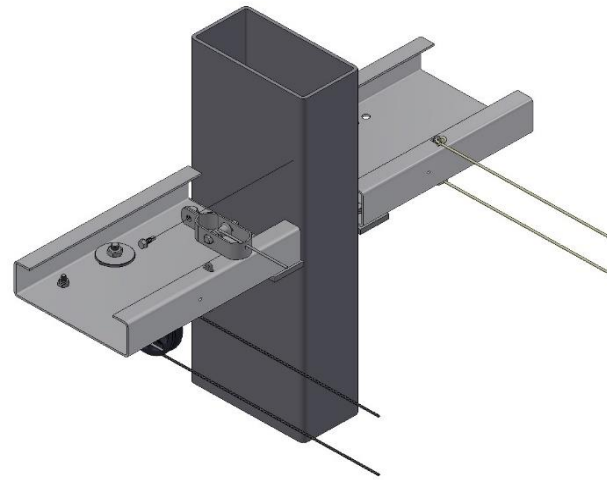
48.80.10



53.57.20



Attention: Only for the lower screen.



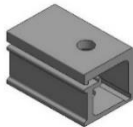
48.10.17



48.80.12



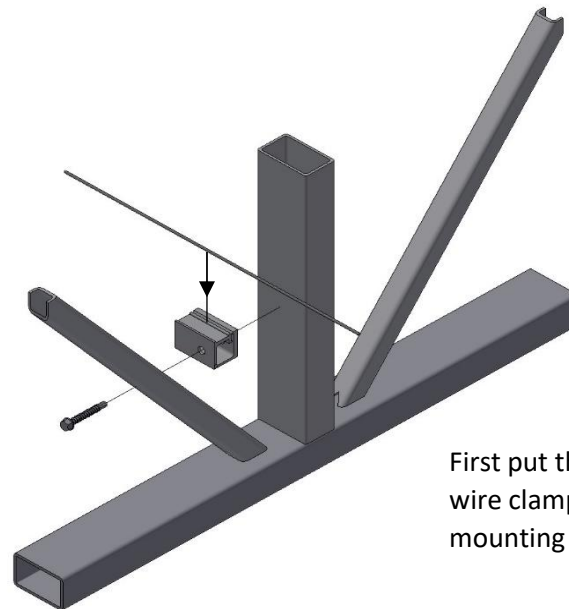
53.57.20



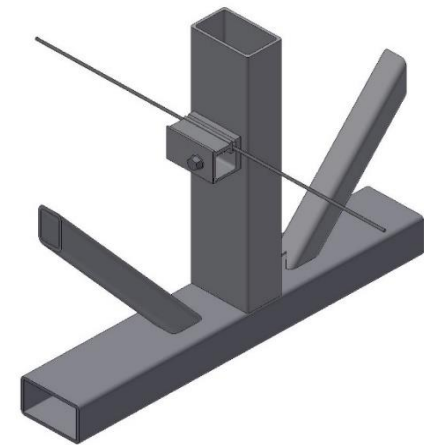
44.30.10



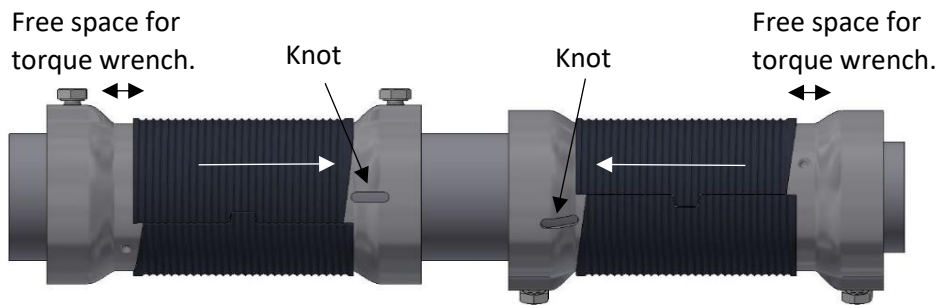
53.57.15



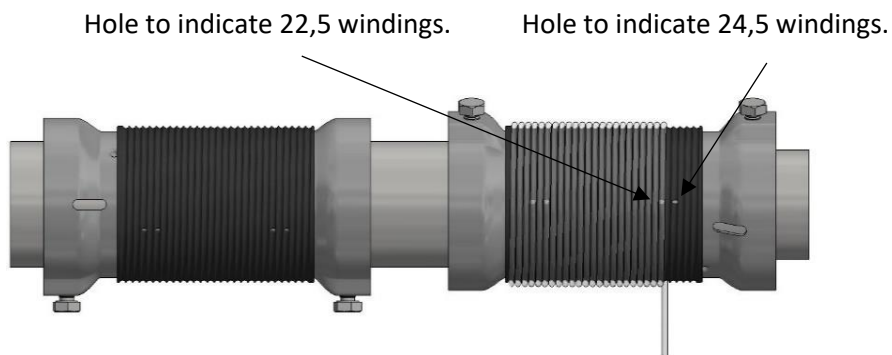
First put the steel cable in to the wire clamp (44.30.10) before mounting it on the trellis.



1. Make sure that the plastic cable drum is moved to the side where the knot will be placed, this to make sure there is enough space on the other side for the torque wrench.

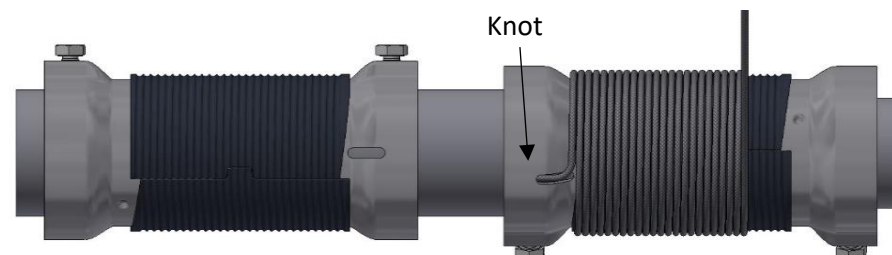


2. The holes in the plastic cable drum stand for how much wire needs to be on the wire tensioners at a certain section size.

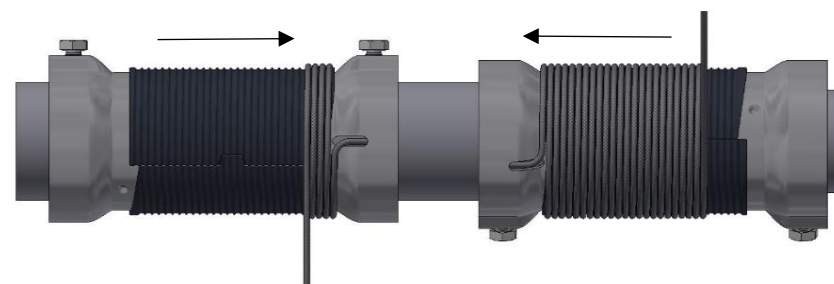


Section size [mm]	No. of windings on wire tensioner 1	No. of windings on wire tensioner 2
3200	3,5	17,5
3658	3,5	19,5
4000	3,5	20,5
4500	3,5	22,5
5000	3,5	24,5

3. Tie a knot at the end of the wire and place the required number of windings on the ValkWireTensioner.



4. Slide the ValkWireTensioners together in such a way that the knots are hidden between the tensioners.



5. Finally, the wire should be wound on the ValkWireTensioner as shown in the picture below.



For the required wire tension, see page H2 and H3



Place the torque wrench 61.16.11 next to the ValkWireSleeve on the remaining piece of the ValkWireTensioner.



61.16.11



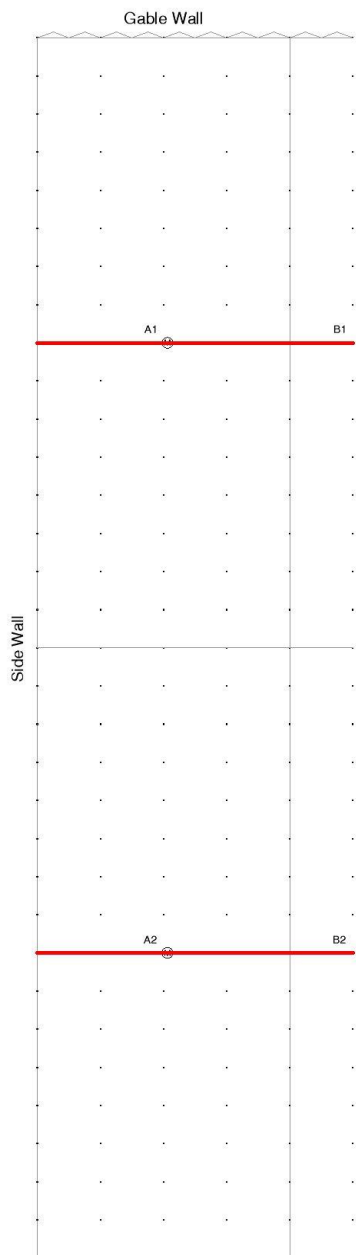
61.16.12



61.16.15

The tools listed above are optional and not standard provided with a screen system. You could order them at Van der Valk Systems.

For the required wire tension see page H3.



ValkKliMax green has a max. skid force of 3 kg.
 ValkKliMax blank has a max. skid force of 6 kg.
 ValkKliMax red has a max. skid force of 9 kg.

In the neutral position (= mounting position) there should be a certain pre-tension applied.

This pre-tension is of great importance for the correct operation of the system.

The pre-tension depends on the number of ValkKliMax's on one steel cable.

Calculated Cable tension [kg]	Moment to set on torque wrench [Nm]
40	20
50	25
60	30
80	40
100	50
130	60

$$\text{Cable pre-tension} = \frac{(\text{number of ValkKliMax's} \times \text{max. skid force})}{2} + 20 \text{ kg}$$

Example: See greenhouse on the left with 16 sections of a blank ValkKliMax.

$$\text{Cable pre-tension} = \frac{(16 \times 6 \text{ kg})}{2} + 20 \text{ kg} = 68 \text{ kg}$$

The torque wrench must be set approximately to 35 Nm. (see table)

Attention:

When adjusting the motor in the screen system, ensure that 20 cm of pull cable is fed through the ValkKliMax's when closing the system and when forming the screen package.



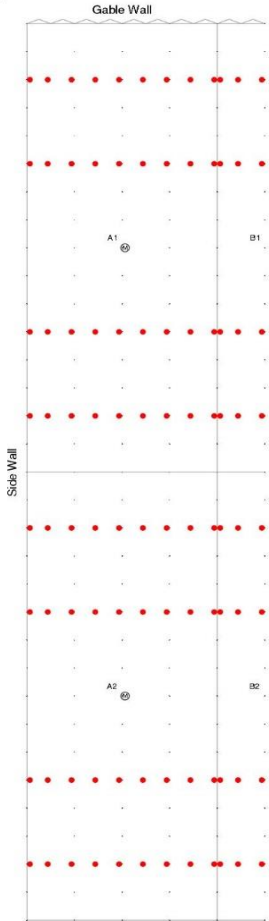
3 kg



6 kg



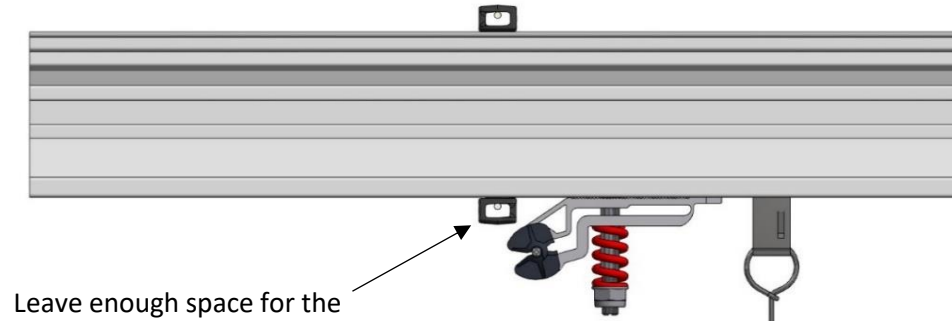
9 kg



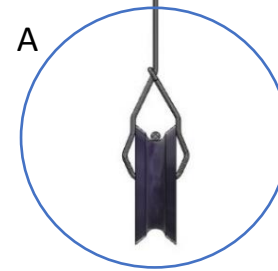
Mount the ValkPulley every 3rd section.



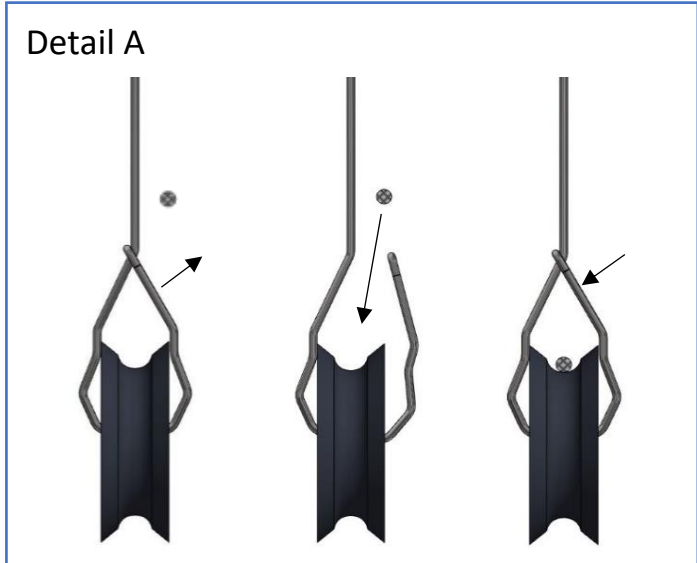
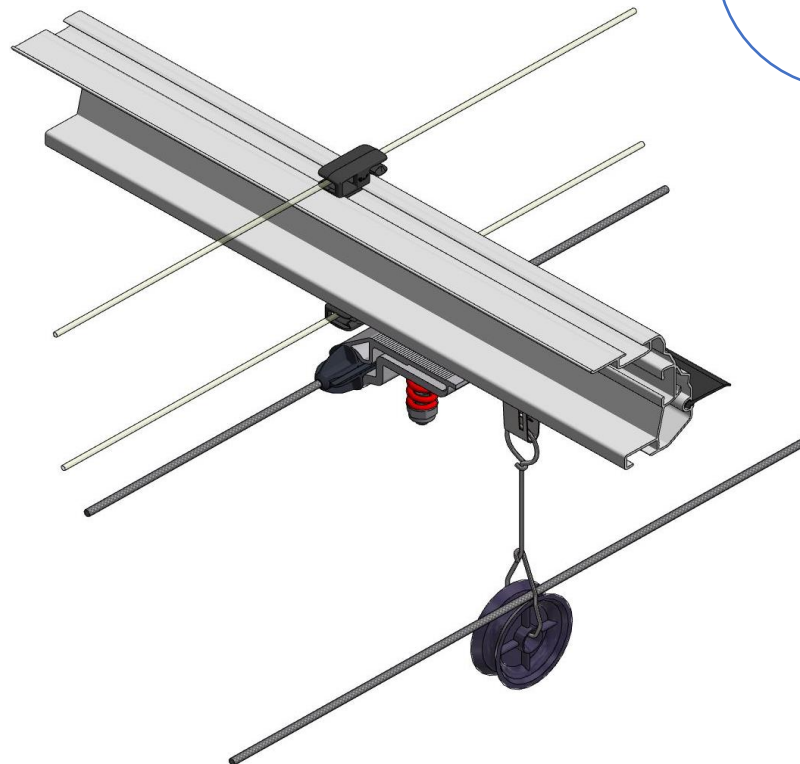
44.27.77



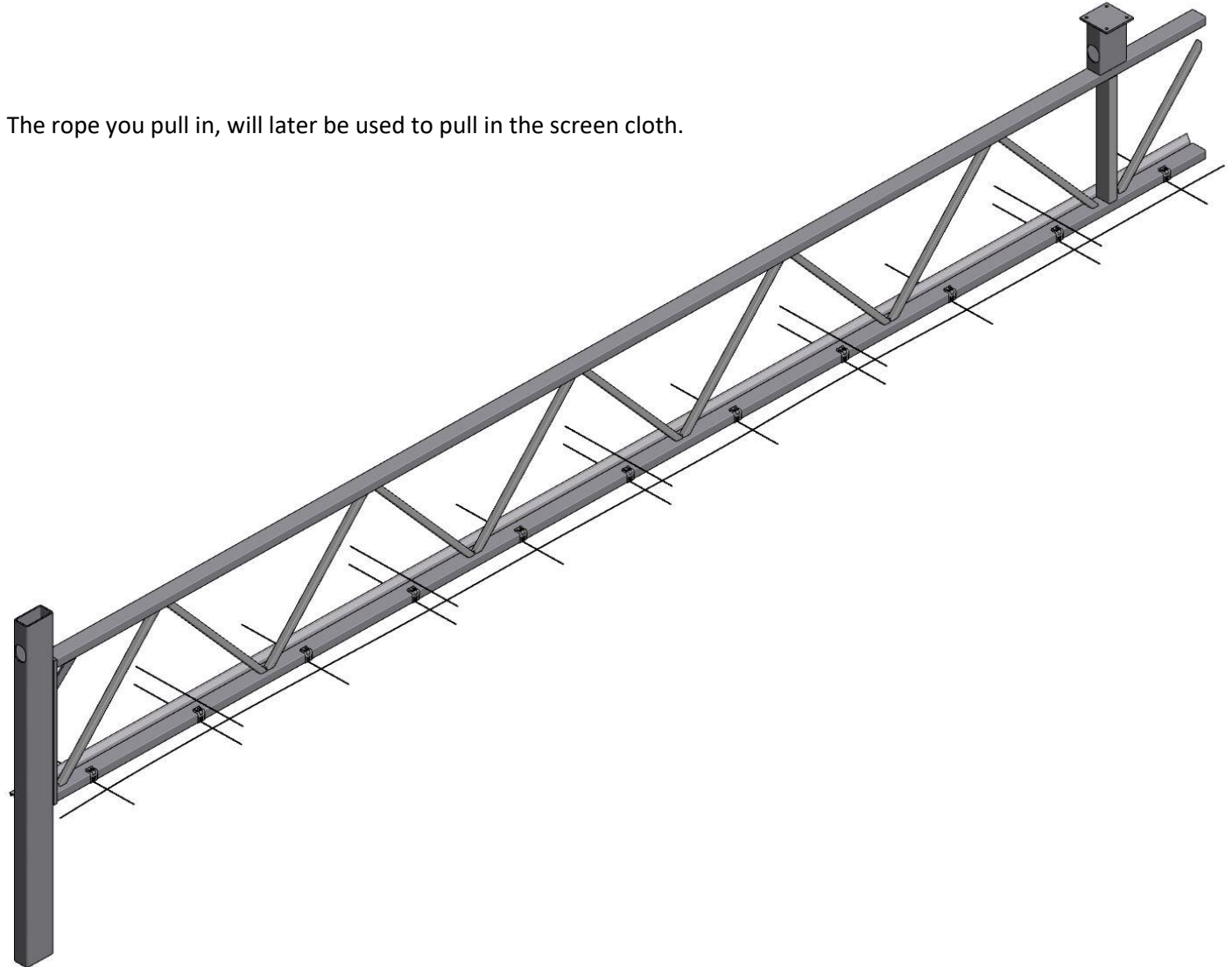
Leave enough space for the ValkWireGuide to slide.



The return wire in the ValkPulley is designed to swing.

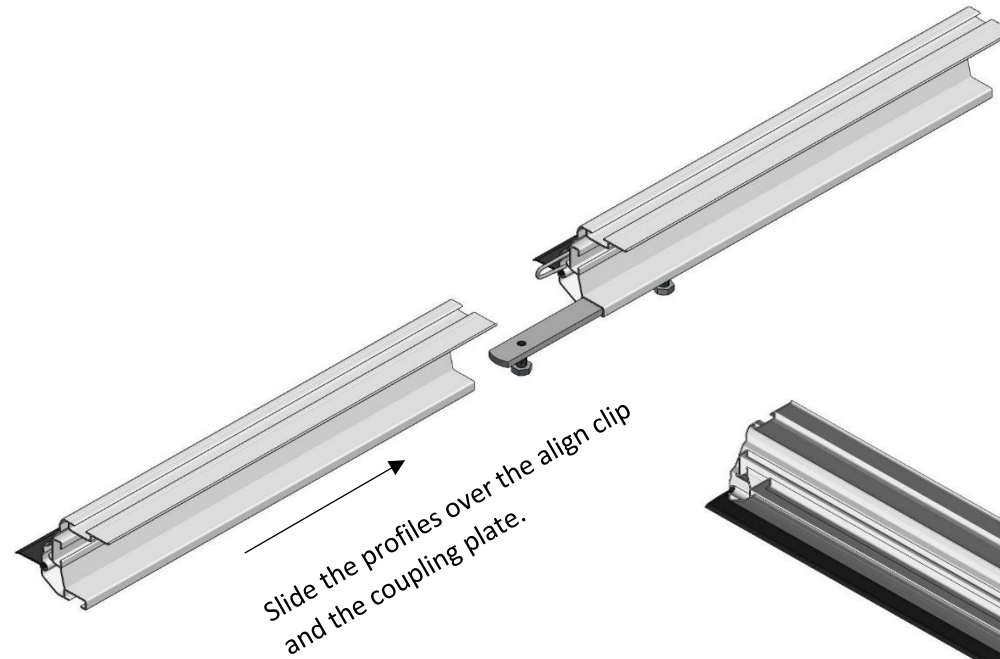
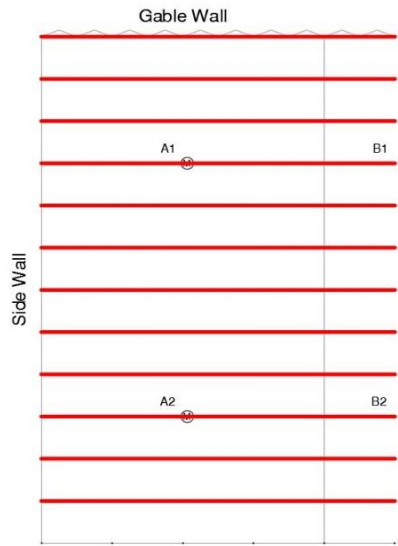


The rope you pull in, will later be used to pull in the screen cloth.



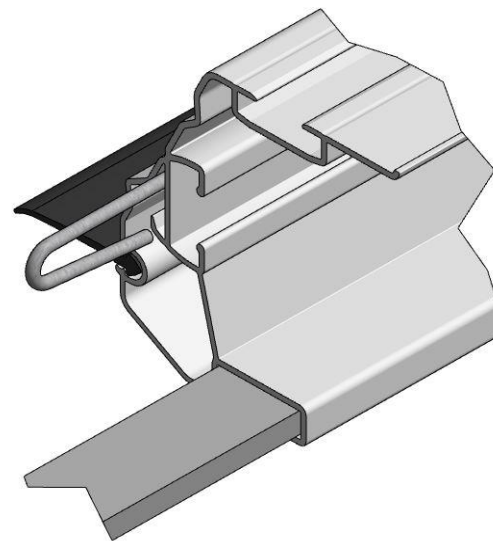
48.55.03

▶ Coupling ValkScreenVision profile

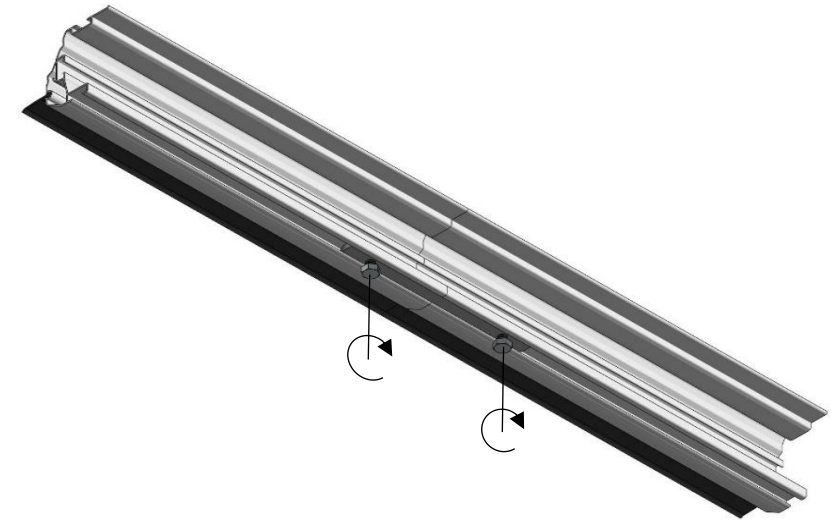


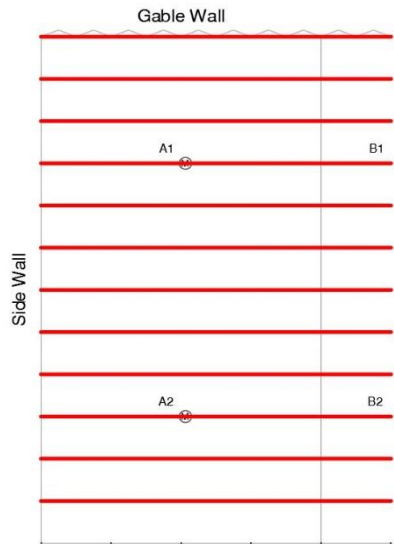
Attention:
For the profile sequence see page E1 or the project specific drawing.

-  45.22.46
-  44.05.10
-  55.30.10 M6x10

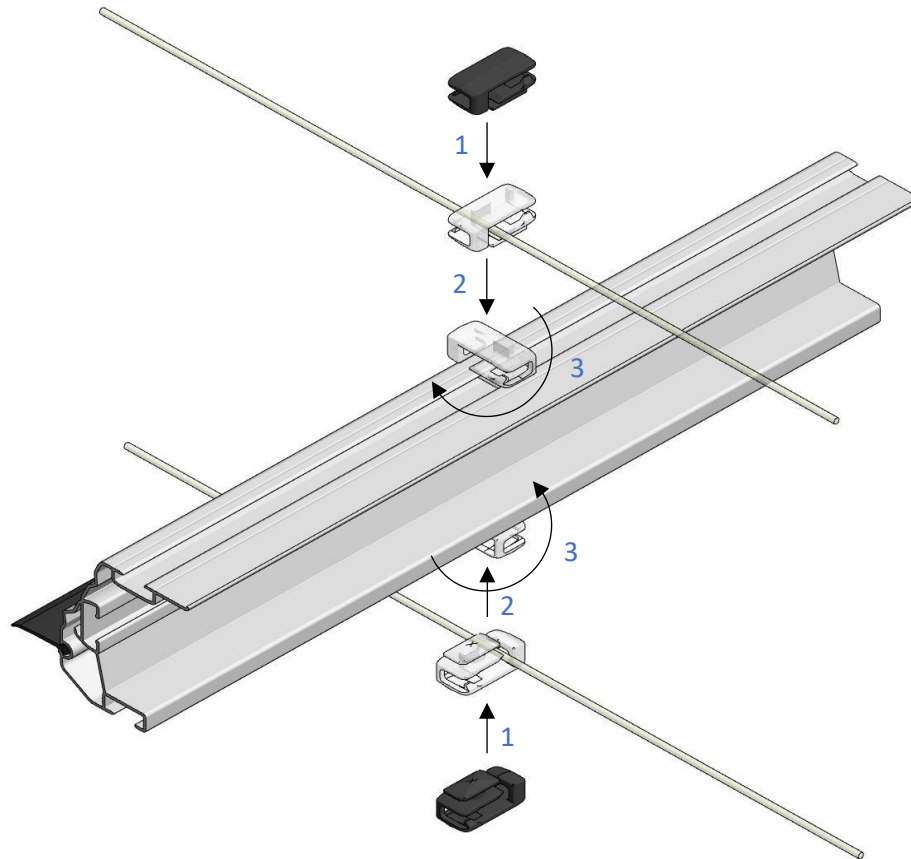


The align clip is mounted for a perfect alignment of the VSV chamber in the VSV profiles.

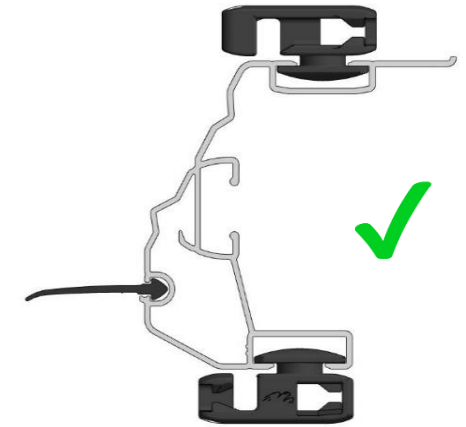




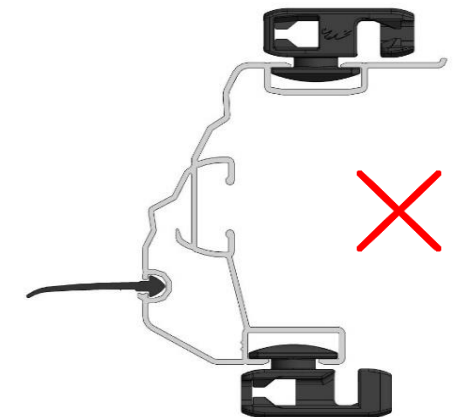
44.15.27

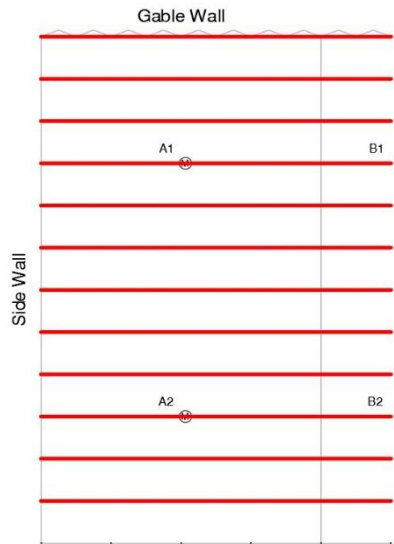


1. Slide the wire guide block on the polyester wire.
2. Insert the wire guide block in de profile chamber.
3. Turn the wire guide block until the wire 'clicks' in the wire guide block, make sure the opening is on the correct side, see the pictures on the right.

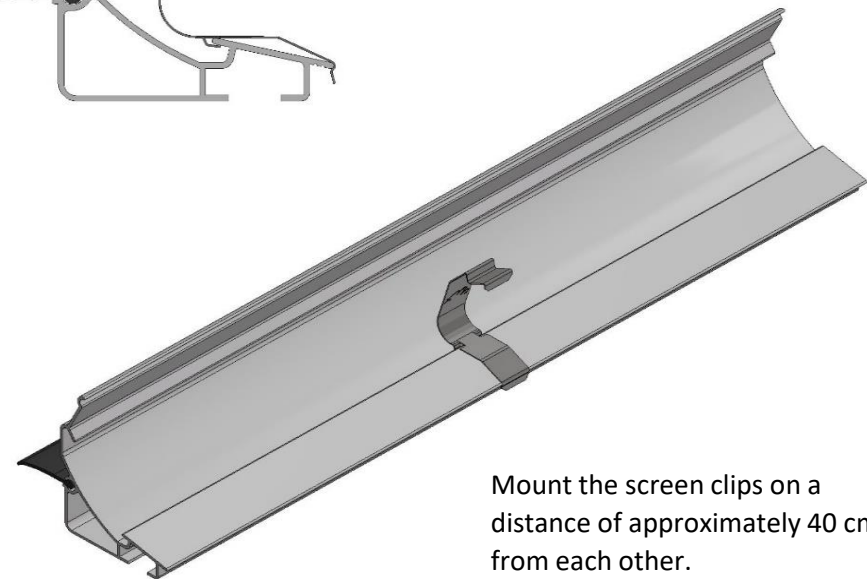
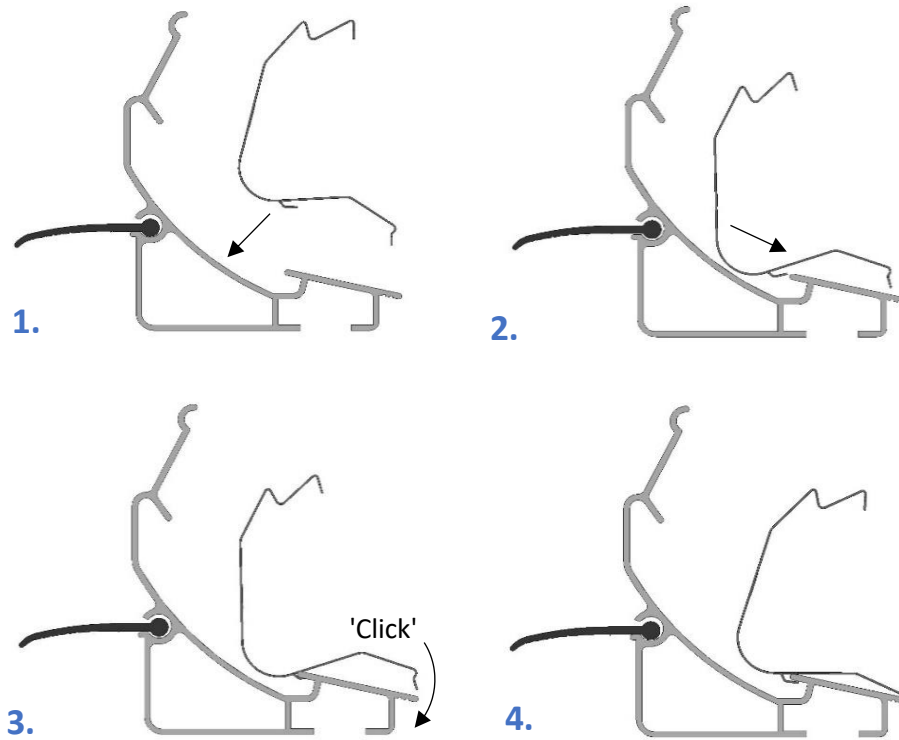


Mount the wire guide blocks with the opening as shown.

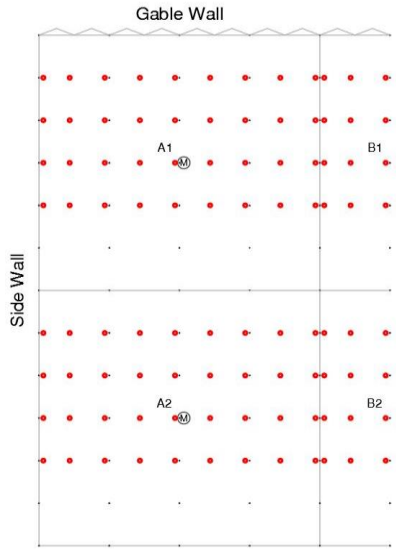




45.25.10



Mount the screen clips on a distance of approximately 40 cm from each other.

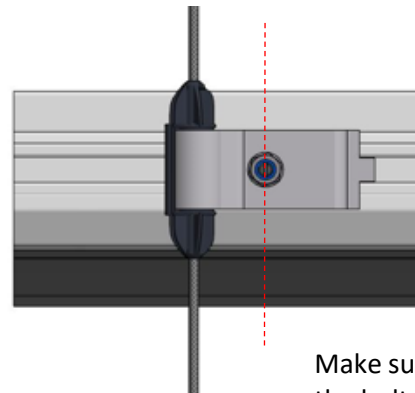


See project specific drawing for mounting the correct ValkKliMax at the correct location!

The ValkKliMax in the sections next to the reversing wheel are slidable. The side wall ValkKliMax's are red spring ValkKliMax's.

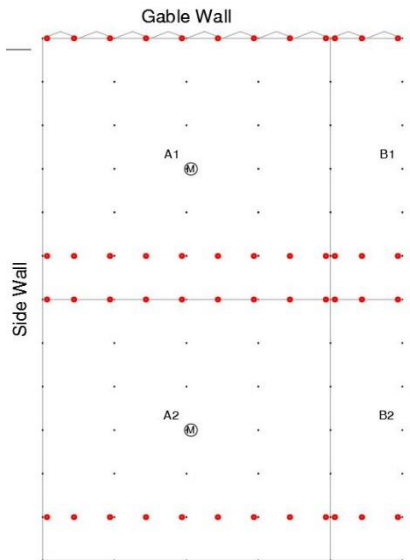


- 44.40.34 (green spring 3 kg)
- 44.40.35 (blank spring 6 kg)
- 44.40.36 (red spring 9 kg)



Make sure that the line on the bottom of the bolt is parallel to the cable.

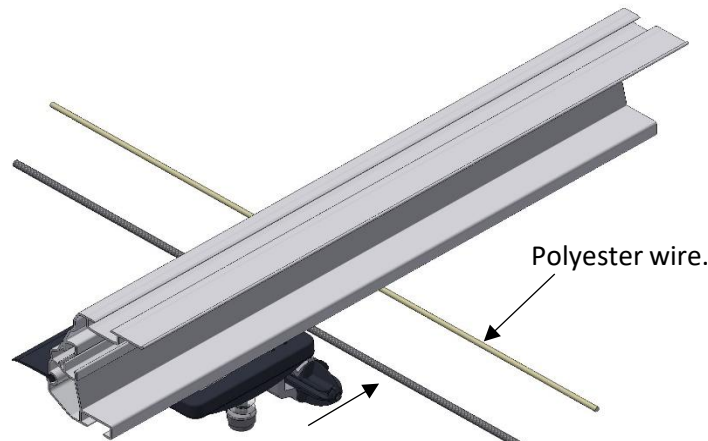
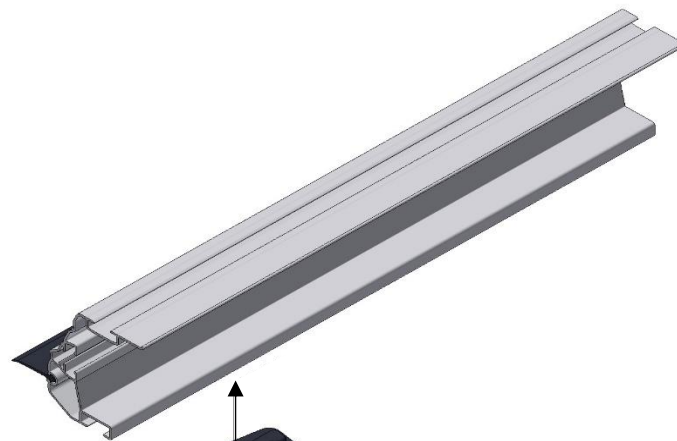
1. 'Click' the pull wire in the ValkKliMax.
2. Mount the ValkKliMax in the profile chamber.
3. Tighten the bolt with a maximum torque of 6 N/m, do NOT use an impact wrench.



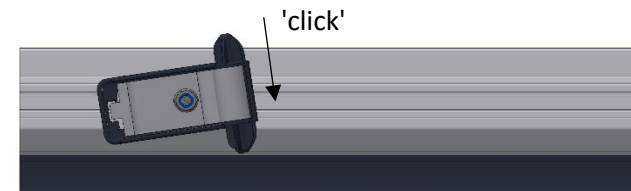
See project specific drawing for mounting the correct ValkKliMax Slide at the correct location!



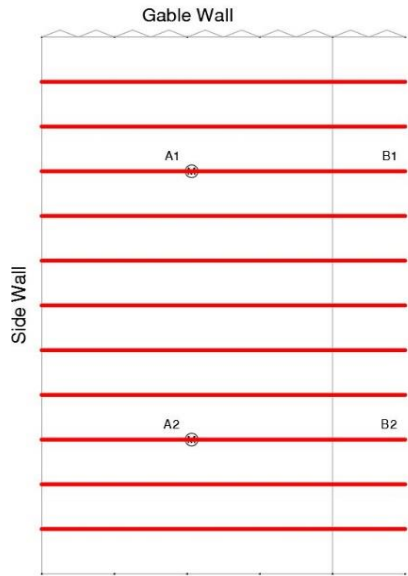
- 44.40.44 (green spring, 3 kg)
- 44.40.45 (blue spring, 6 kg)
- 44.40.46 (black spring, 9 kg)



Slide the ValkKliMax Slide on the pull wire with the head towards the polyester wire.

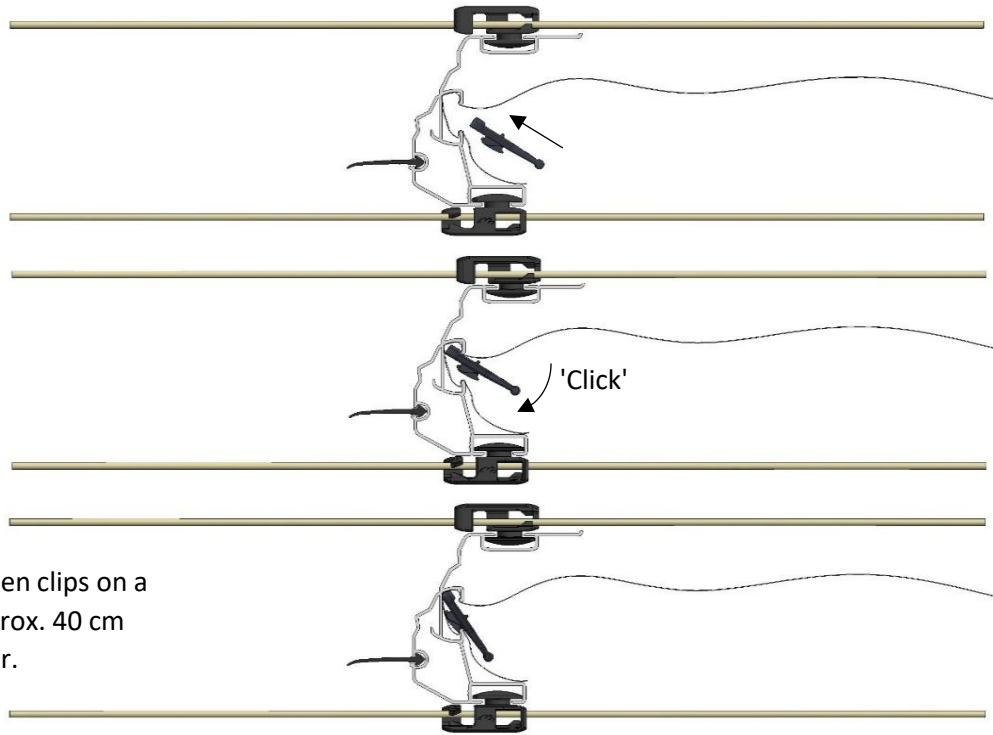


Attention:
Maximum tightening torque 6 Nm, do NOT use an impact wrench.

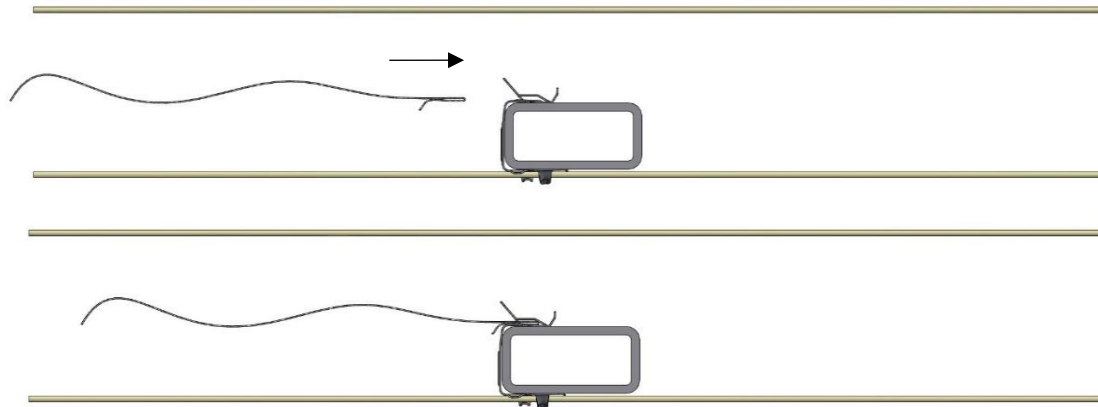


44.15.42

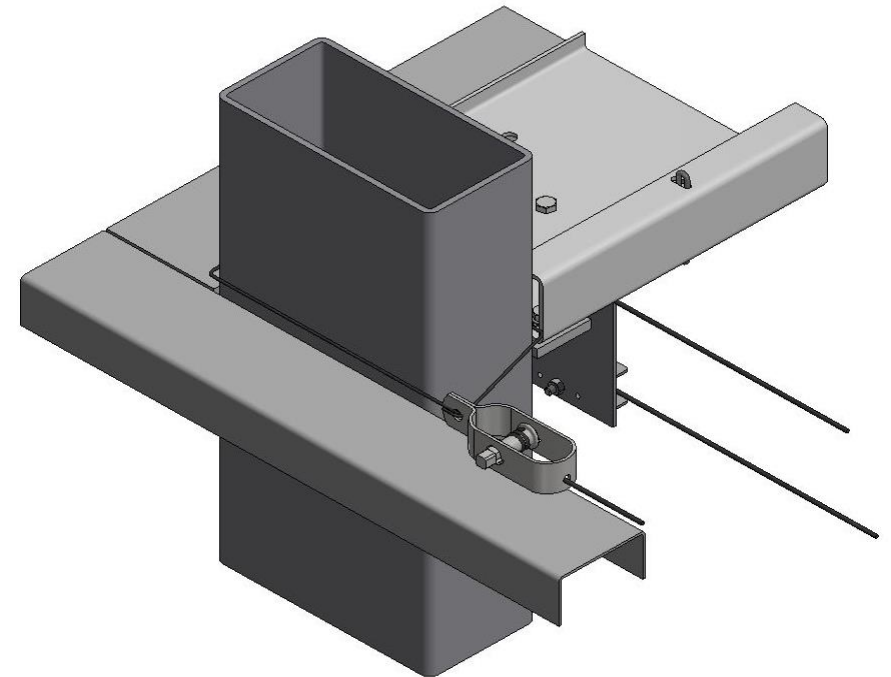
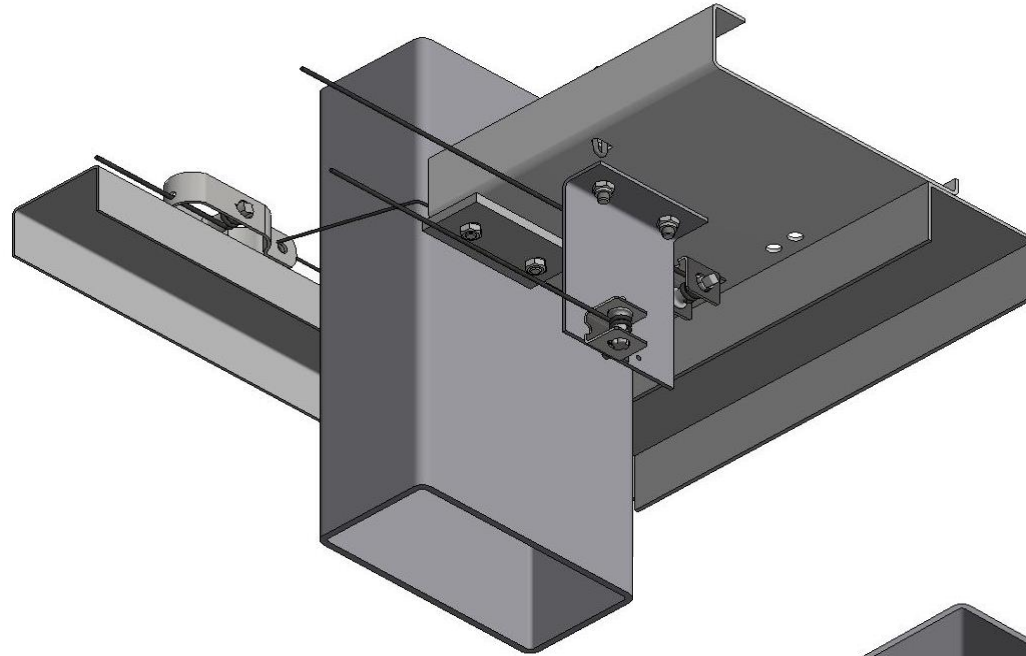
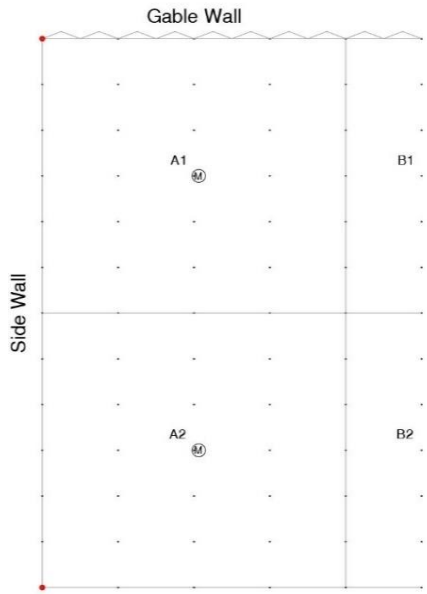
Retract the screen cloth according to the regulations from your cloth supplier.



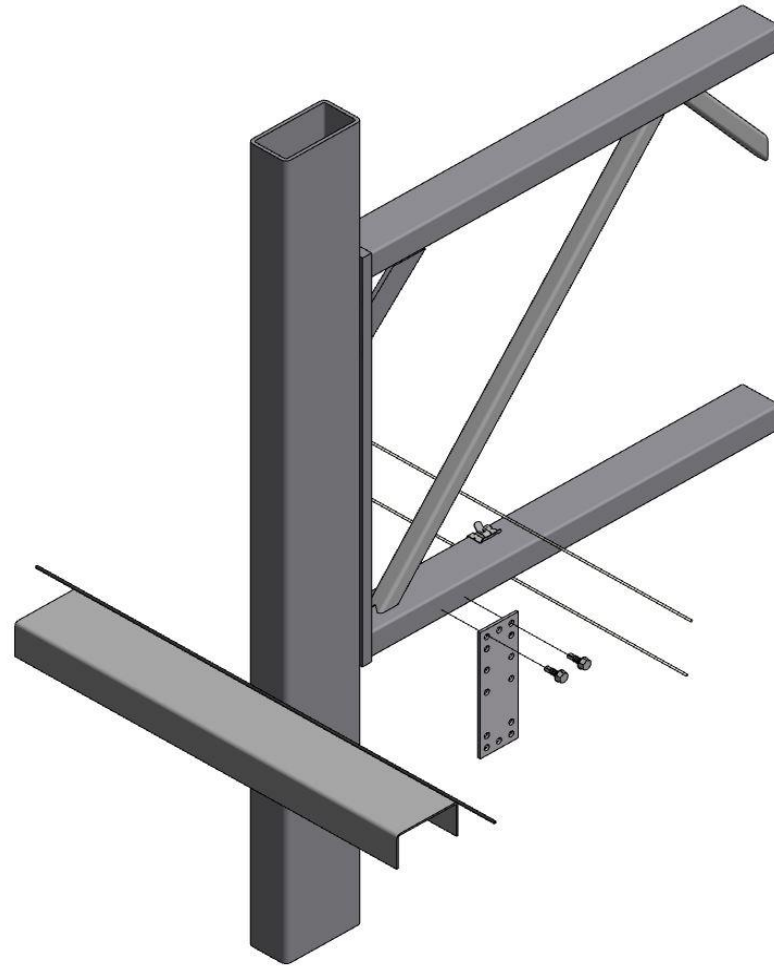
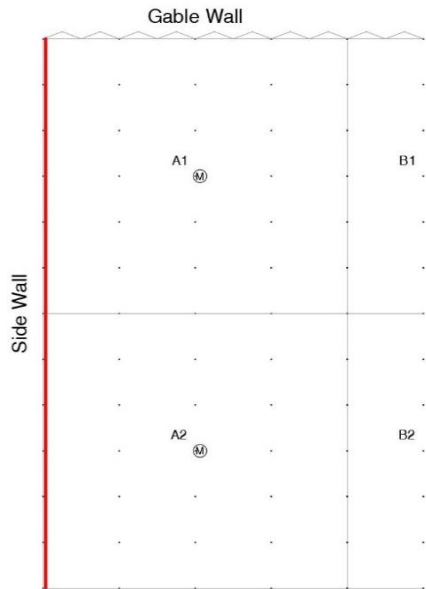
Mount the screen clips on a distance of approx. 40 cm from each other.



To attach the cloth to the truss clips, use for example a flexible putty knife.



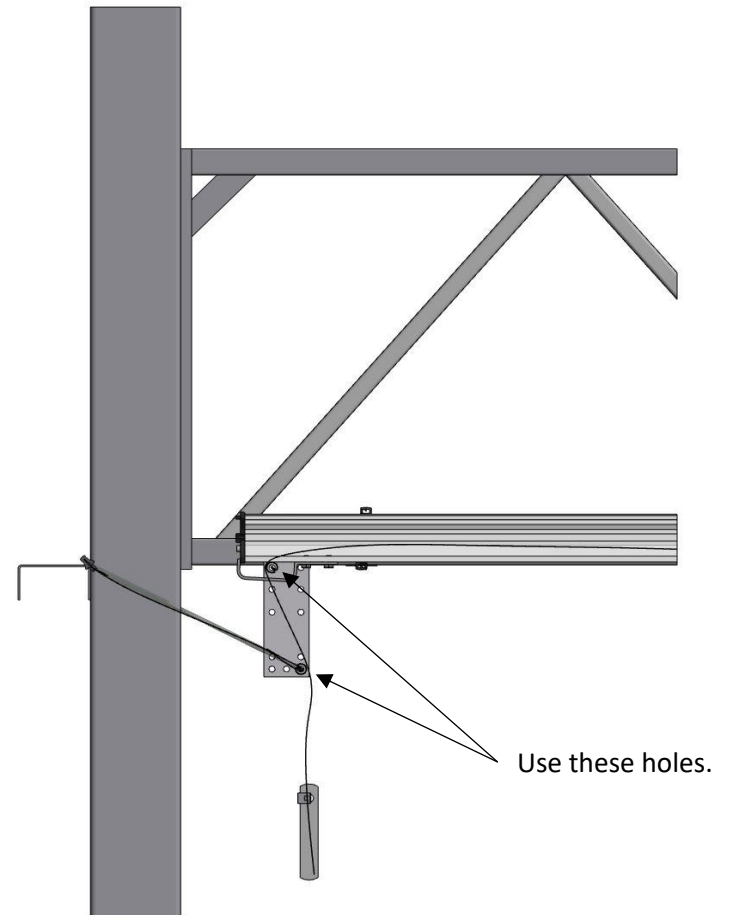
-  44.84.25
-  55.40.20 M8x20
-  55.40.05 M8
-  48.80.10
-  55.30.16 M6x16
-  55.30.00 M6
-  48.20.15
-  48.80.12

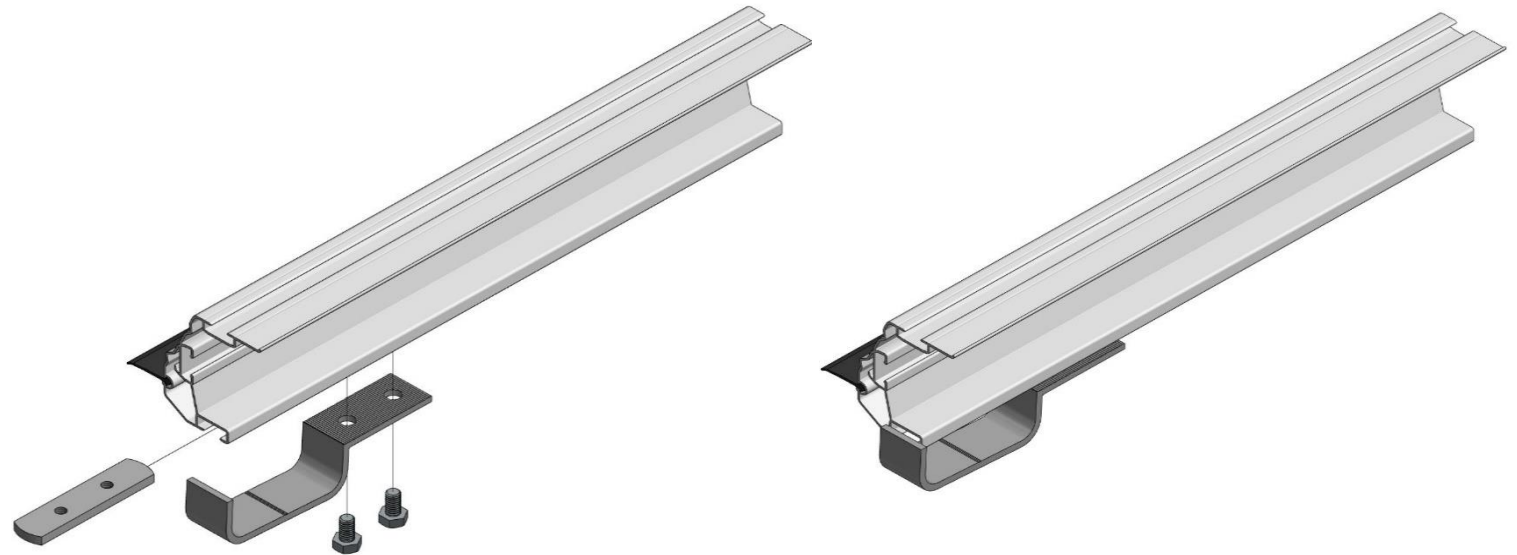
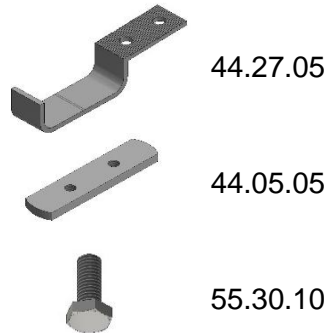
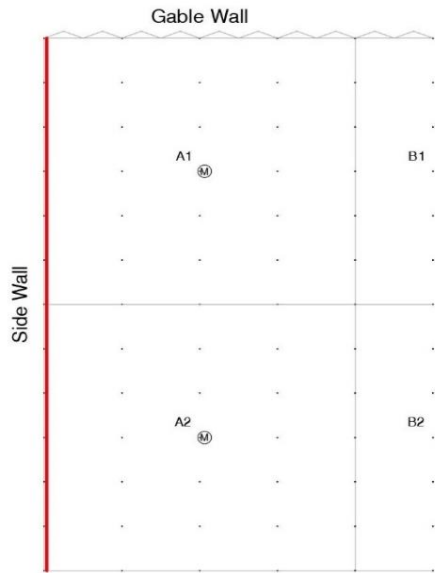


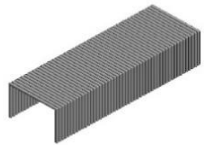
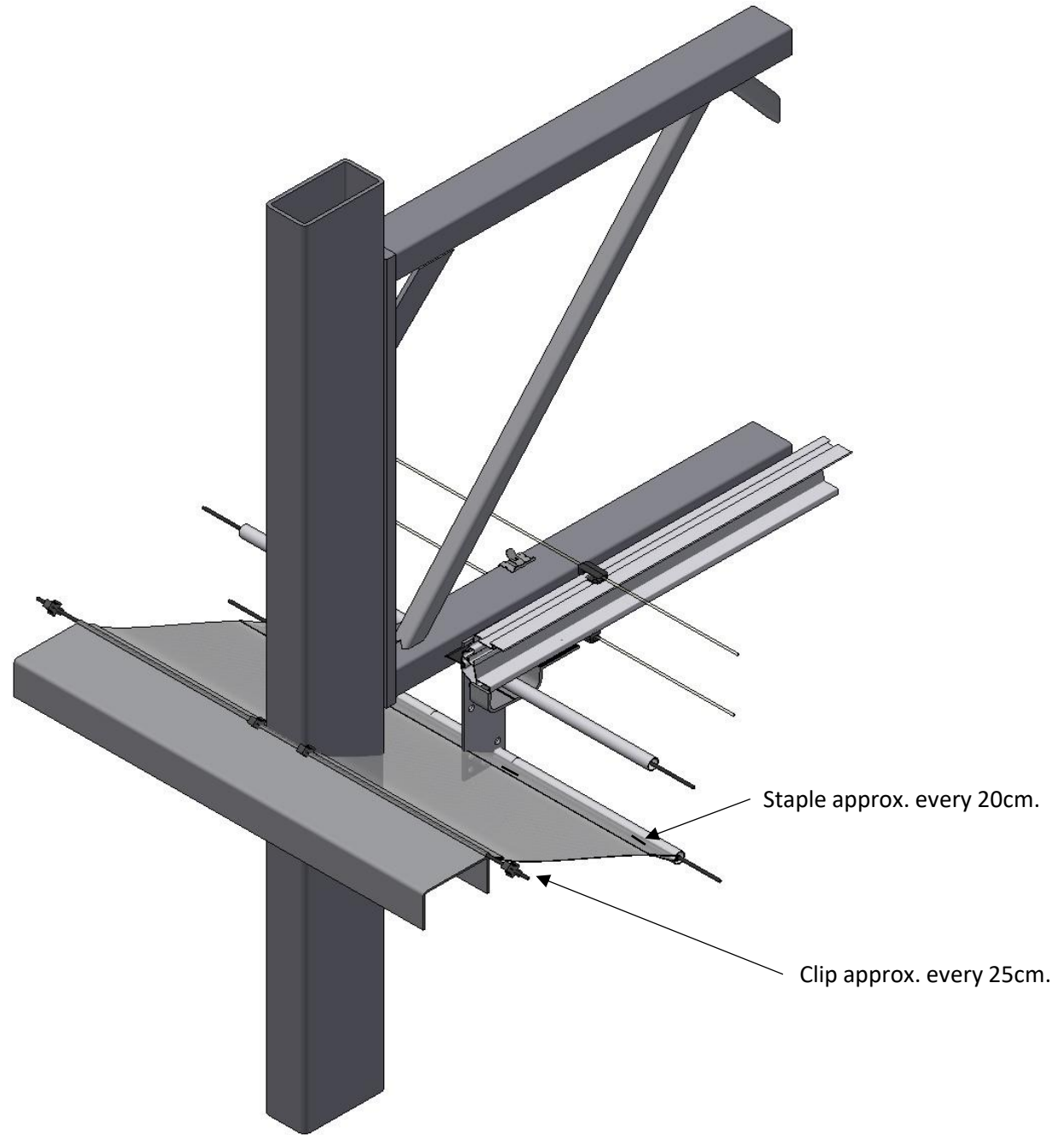
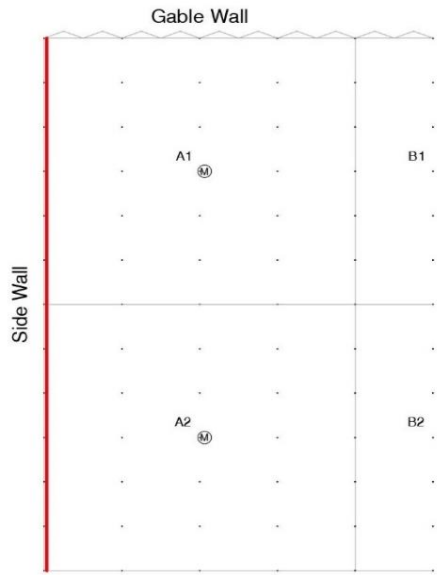
44.27.15



53.57.20







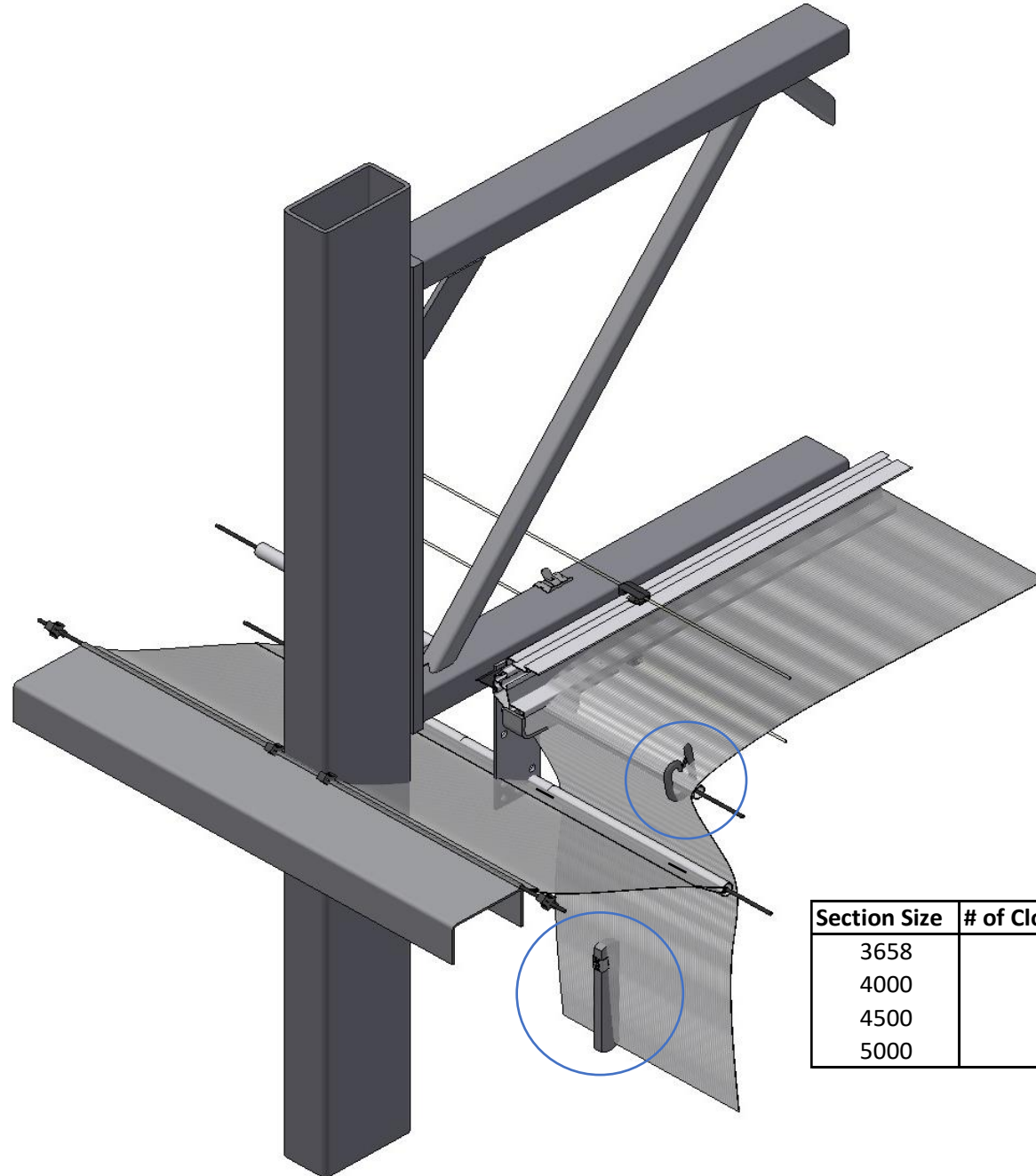
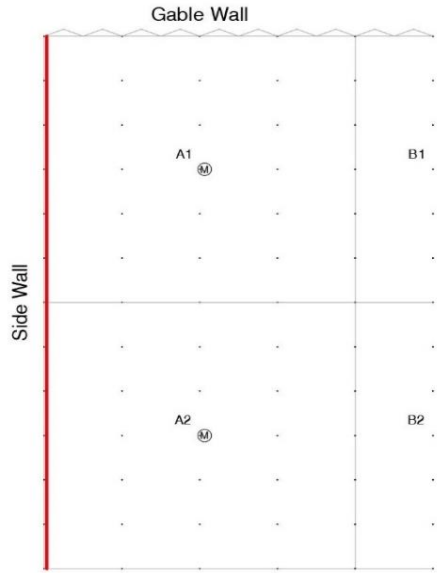
61.10.06

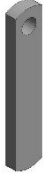




44.15.40



48.60.-----



-  44.70.25
-  45.45.50
-  44.15.20

Section Size	# of Cloth weight	# of Screen hook
3658	5	7
4000	6	8
4500	7	9
5000	8	10