Manual - ValkClip

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 nog 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 be differ depending on the installation tools used.
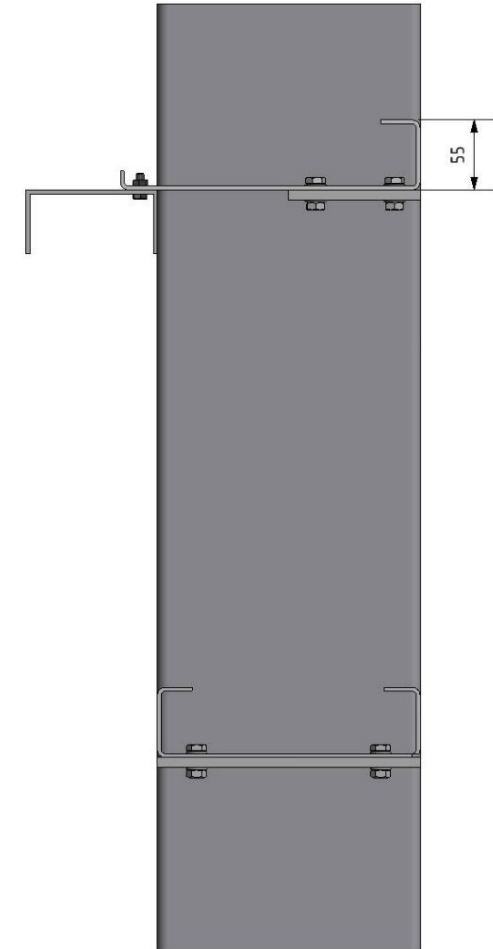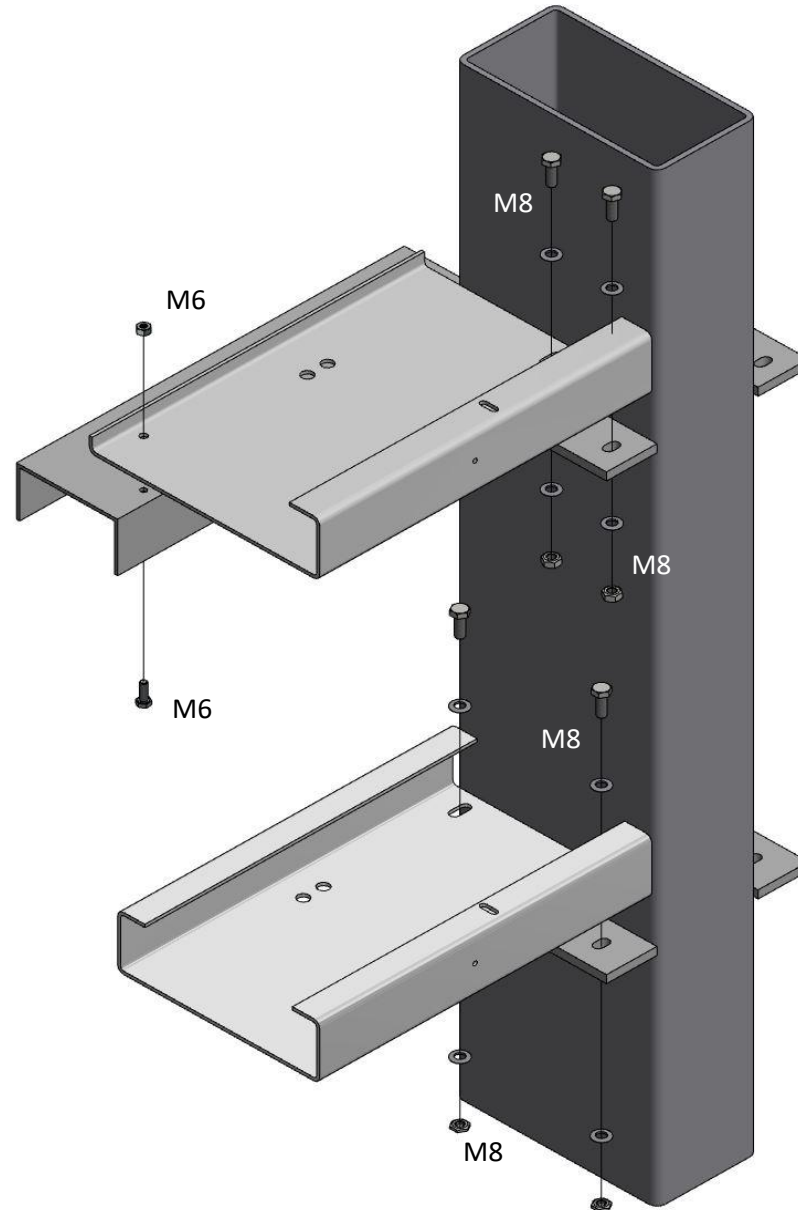
if you scan or click this QR-code you will be linked to the youtube playlist of all installation movies. you wil find a specific QR-code at the page.
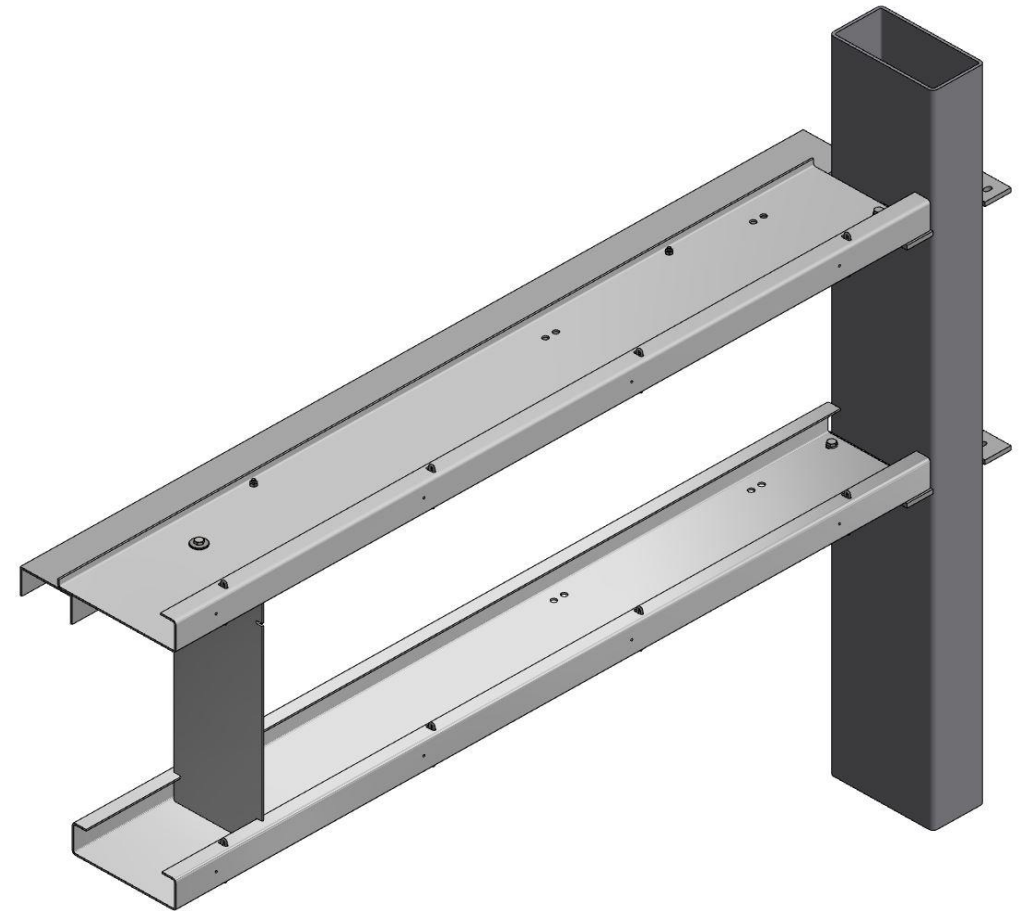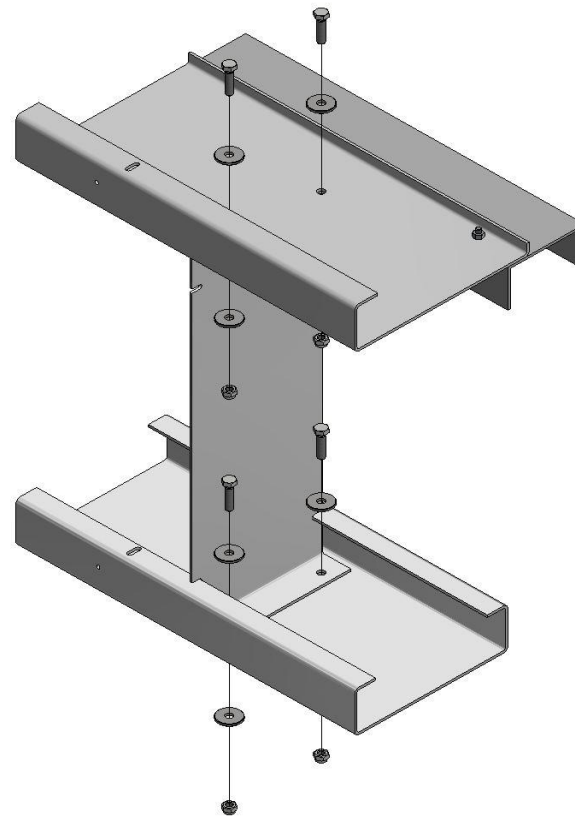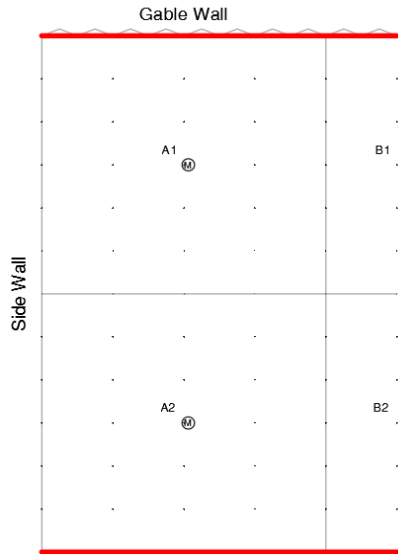
Gable Wall

Side Wall

A1   B1

A2   B2

50.7-.055.----

50.70.055.----
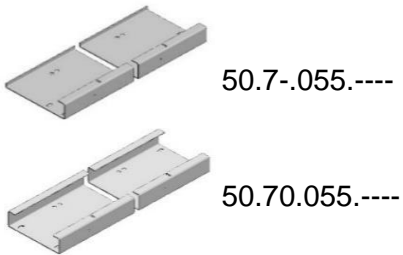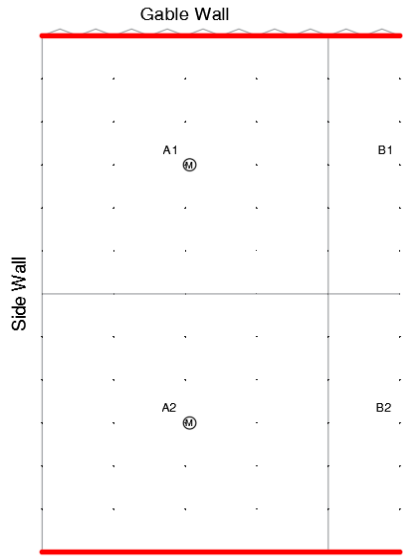
55.40.20	M8x20	
55.40.05	M8	
53.55.17	M8	
55.30.16	M6x16	
55.30.00	M6	

M8

M6

M8

M6

M8

M8

55

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

VAN DER VALK
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Gable Wall

Side Wall

A1   B1

A2   B2

50.71.----

55.40.30   M8x20

53.55.38   M8

55.40.05   M8

Gable Wall

Side Wall

A1 Ⓜ

B1

A2 Ⓜ

B2

45.81.85

Gable Wall

A1   B1
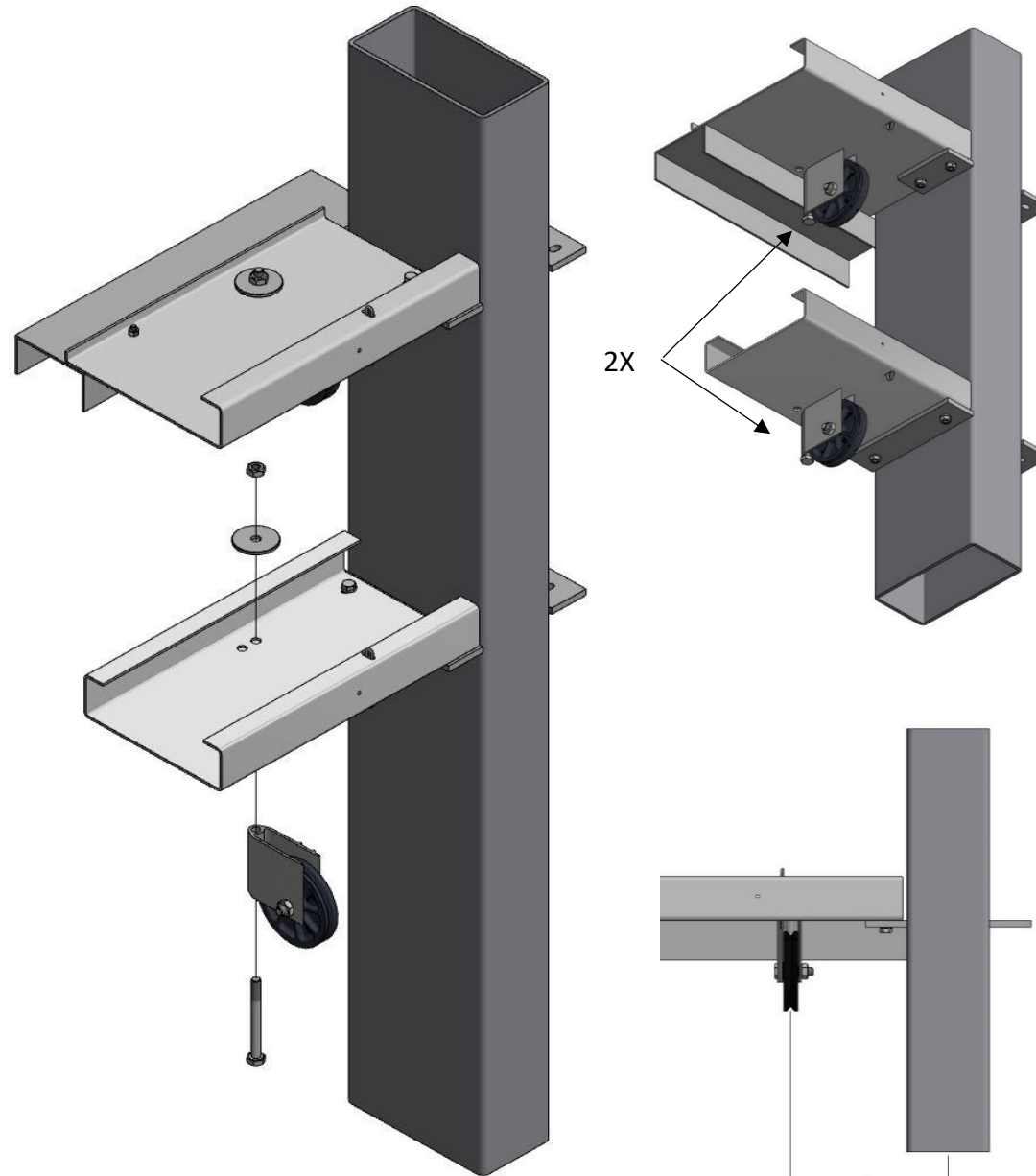
Side Wall

A2   B2
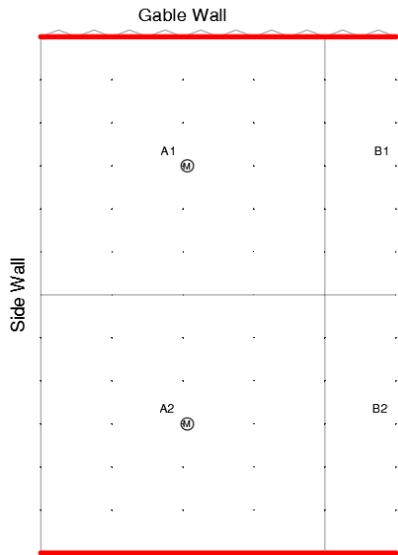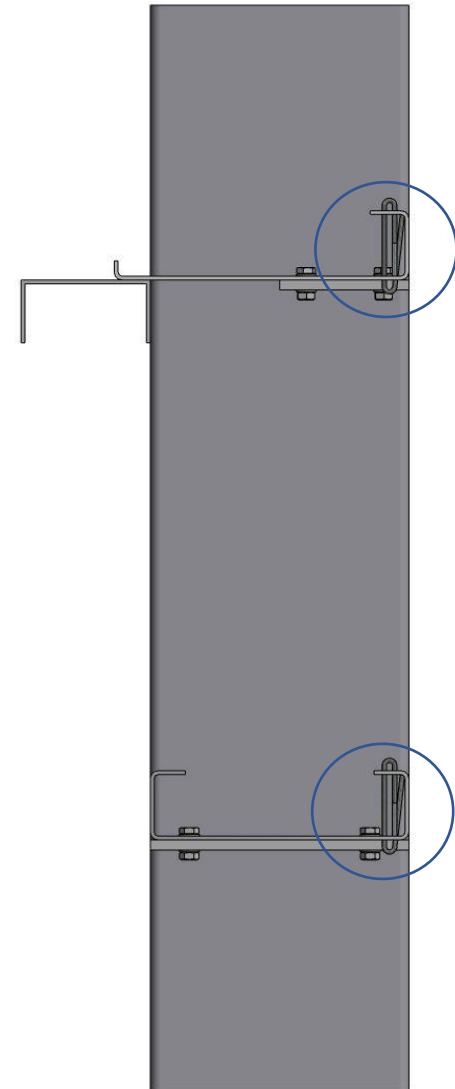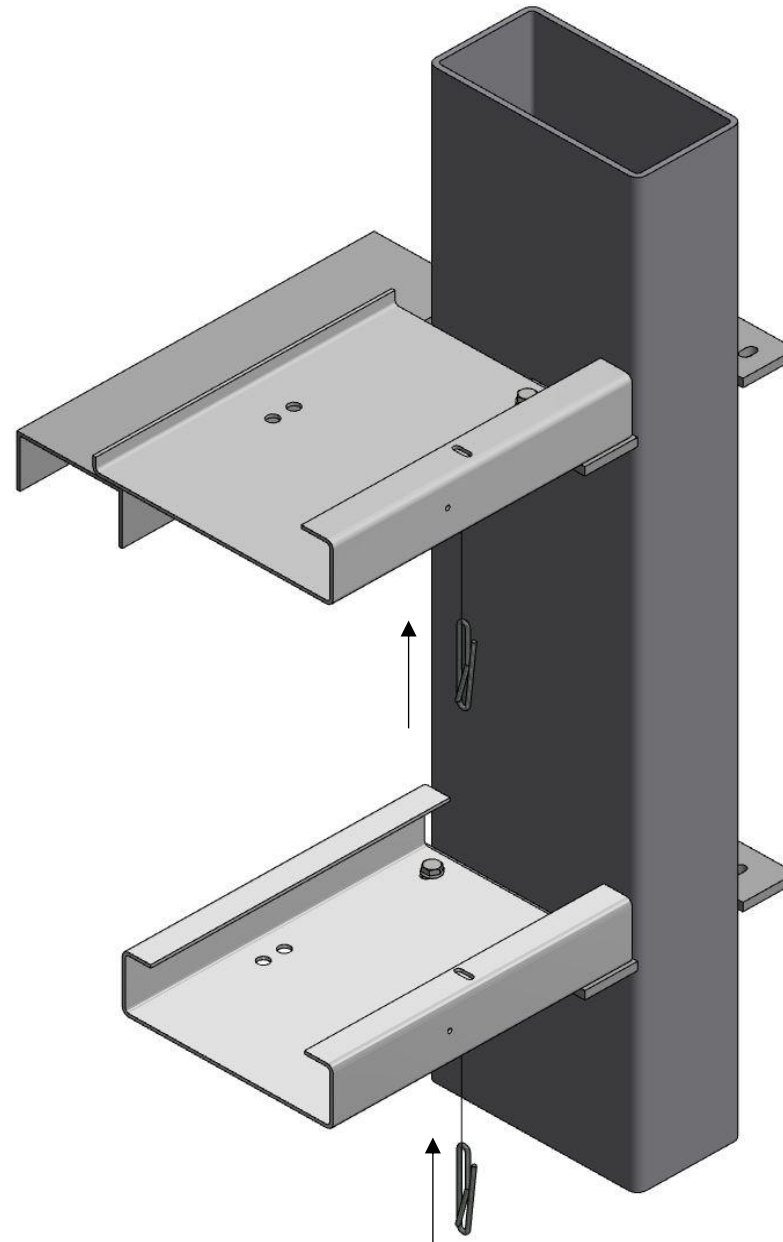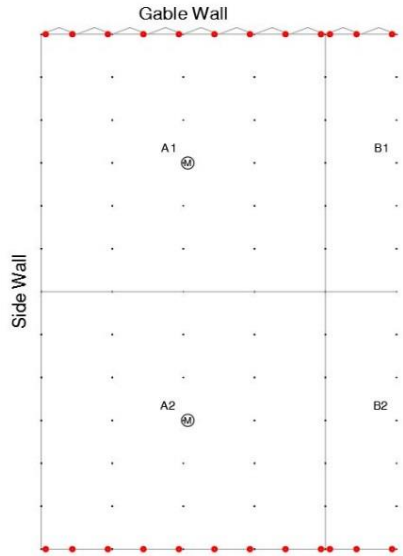
44.81.30
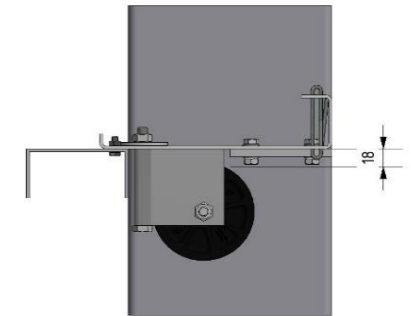
55.51.00   M10x100

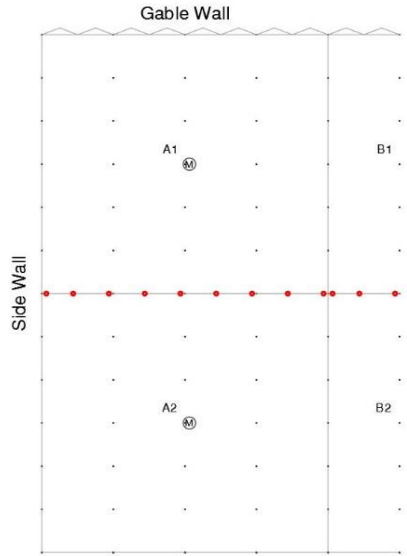53.55.42   M10

55.50.00   M10

2X

The screen plates are produced with 2 holes for the reversing wheels. Use 1 of the 2 holes.
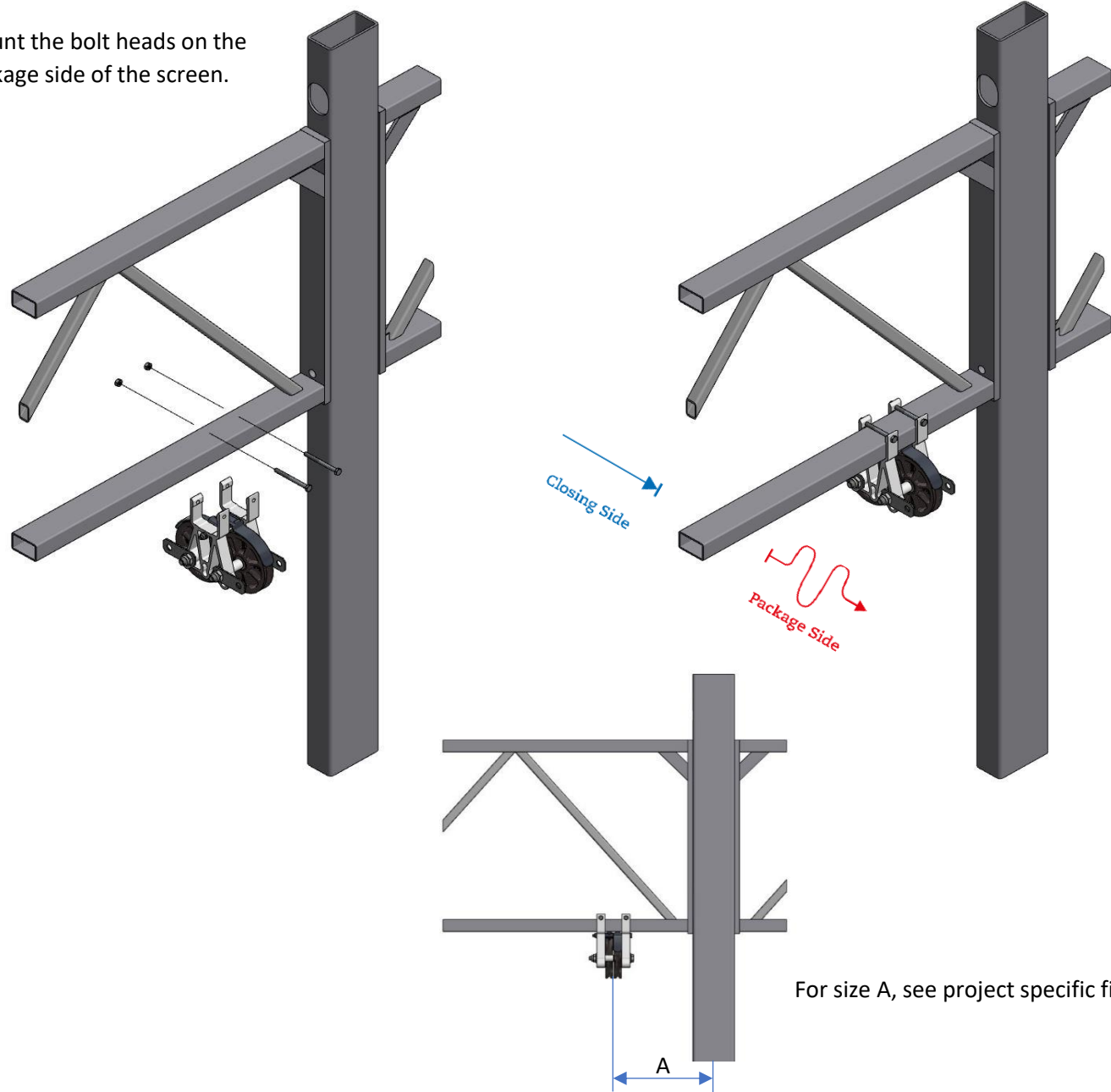
18

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

A

For size A, see project specific file.

Gable Wall

Side Wall

A1 Ⓜ B1

A2 Ⓜ B2

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

(trellis width + 15 mm)
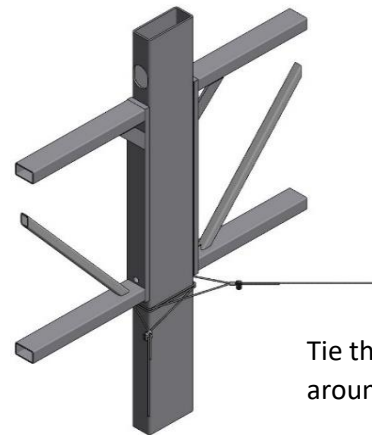55.30.--

55.30.00

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

Closing Side

Package Side

A

For size A, see project specific file.

Gable Wall

Side Wall

A1 Ⓜ   B1

A2 Ⓜ   B2

48.10.17

48.80.40

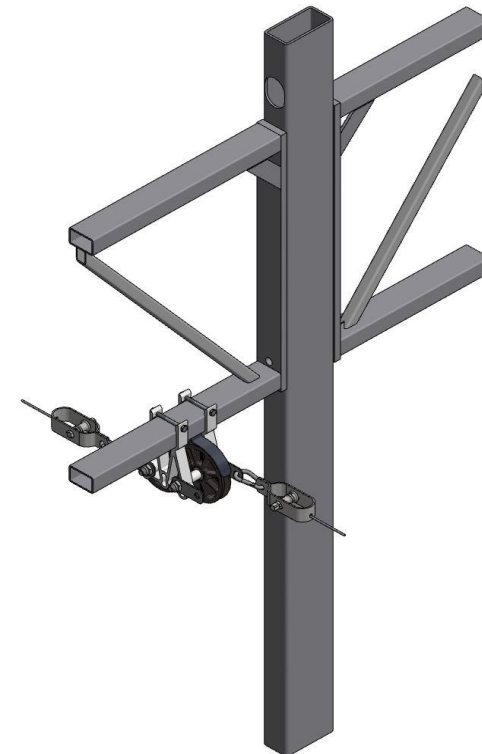48.80.12

48.80.30

48.80.37
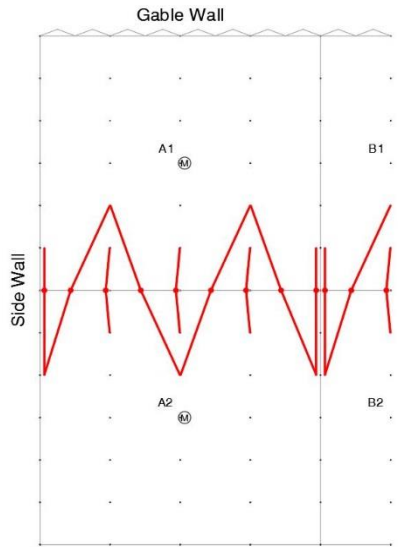
Bracing at the column:

Tie the bracing wire around 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.
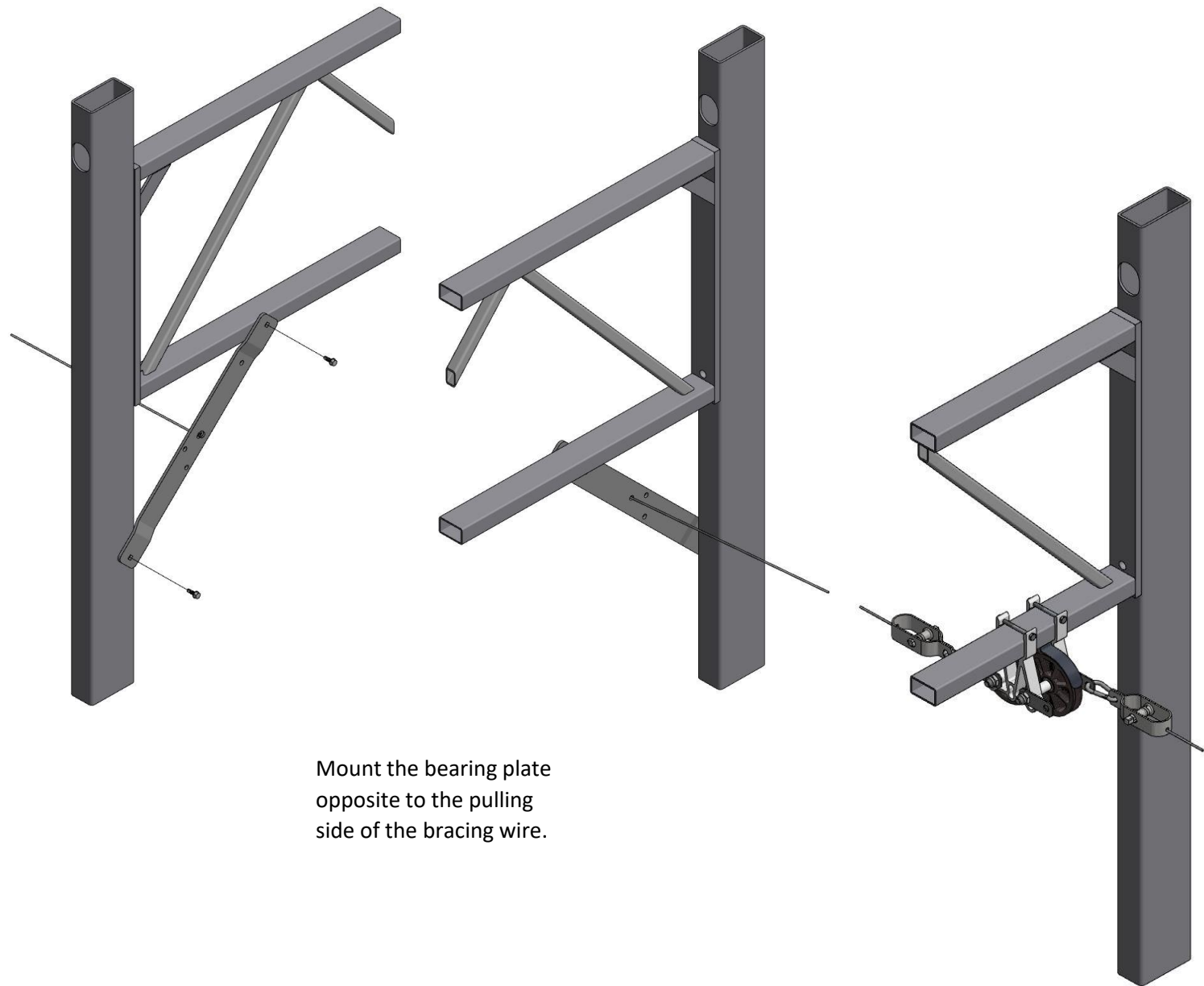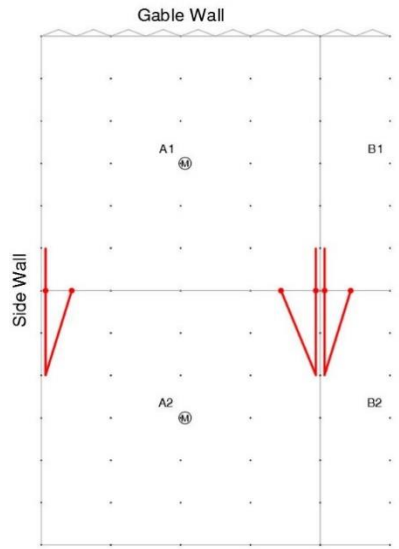
Column:

Floating gutter:

Gable Wall

Side Wall

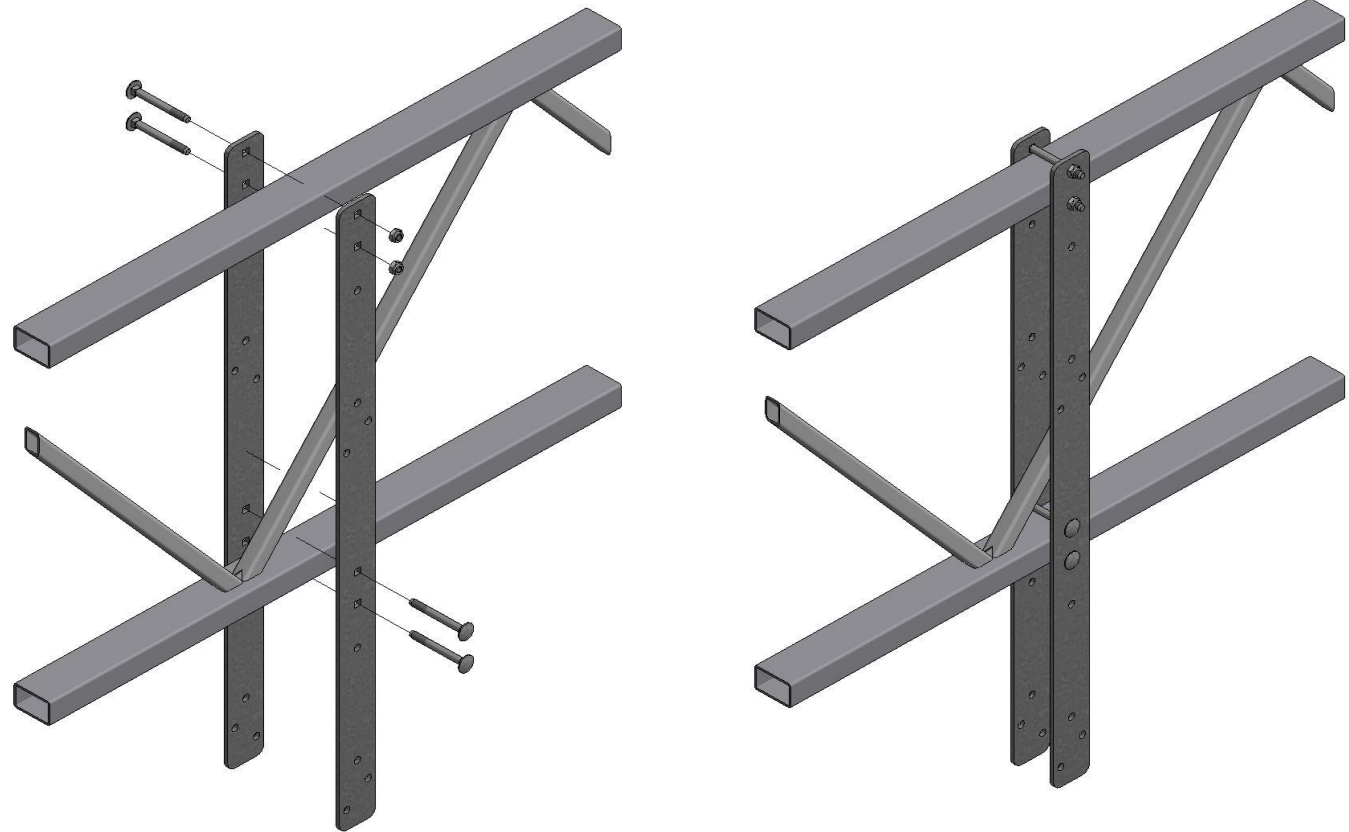A1 Ⓜ   B1

A2 Ⓜ   B2

(trellis height)

44.82.10.----

53.57.20

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

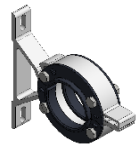See project drawing for position.

(trellis height)
44.82.11.----

53.41.-- M8x--

55.40.05

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HORTI SYSTEMS

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
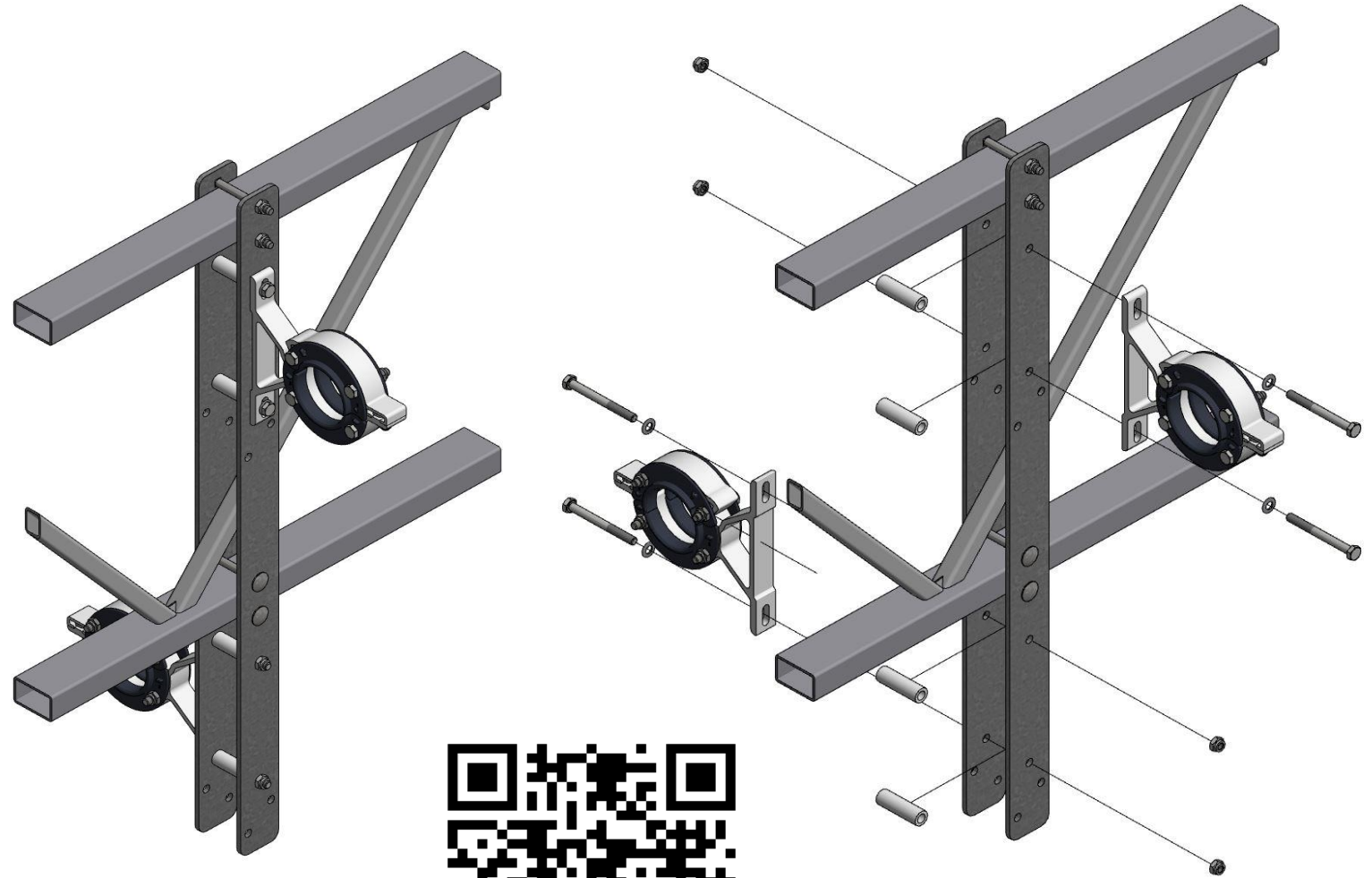
See project drawing for position.

48.10.17

48.80.40

48.80.12
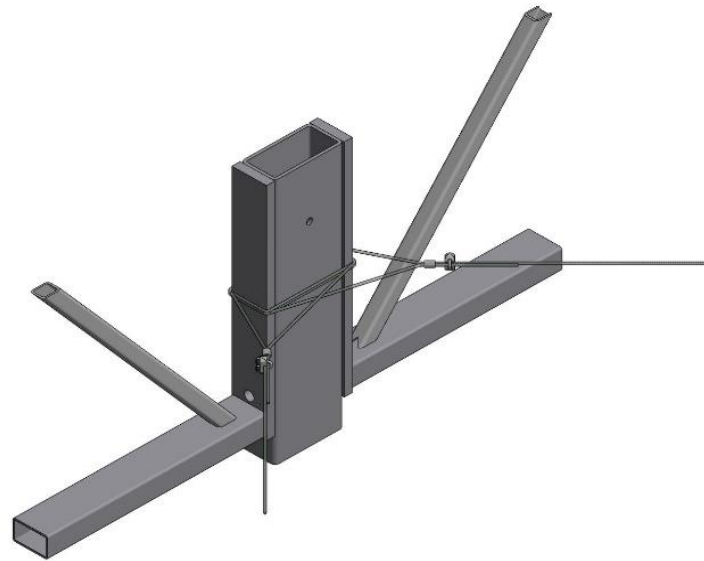
48.80.30

48.80.37

See project drawing for position.

(trellis height)
44.82.11.----

53.41.--

44.85.--

55.40.05

VAN DER VALK
HORTI SYSTEMS

Gable Wall

Side Wall

A1   B1

A2   B2

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
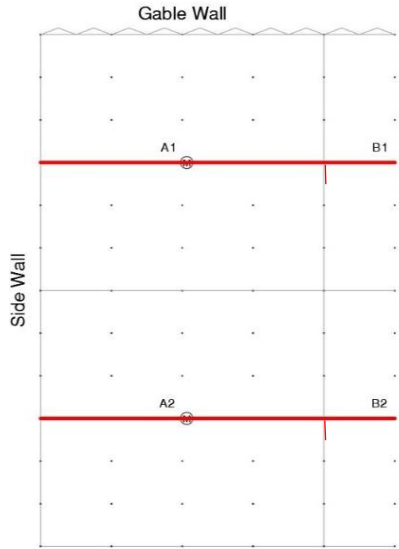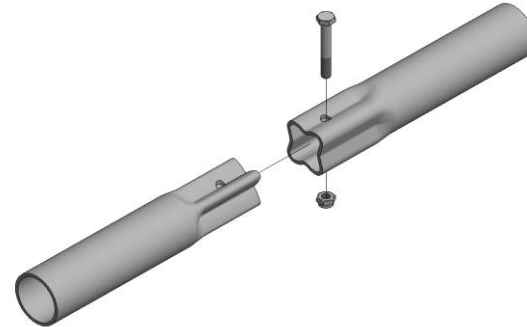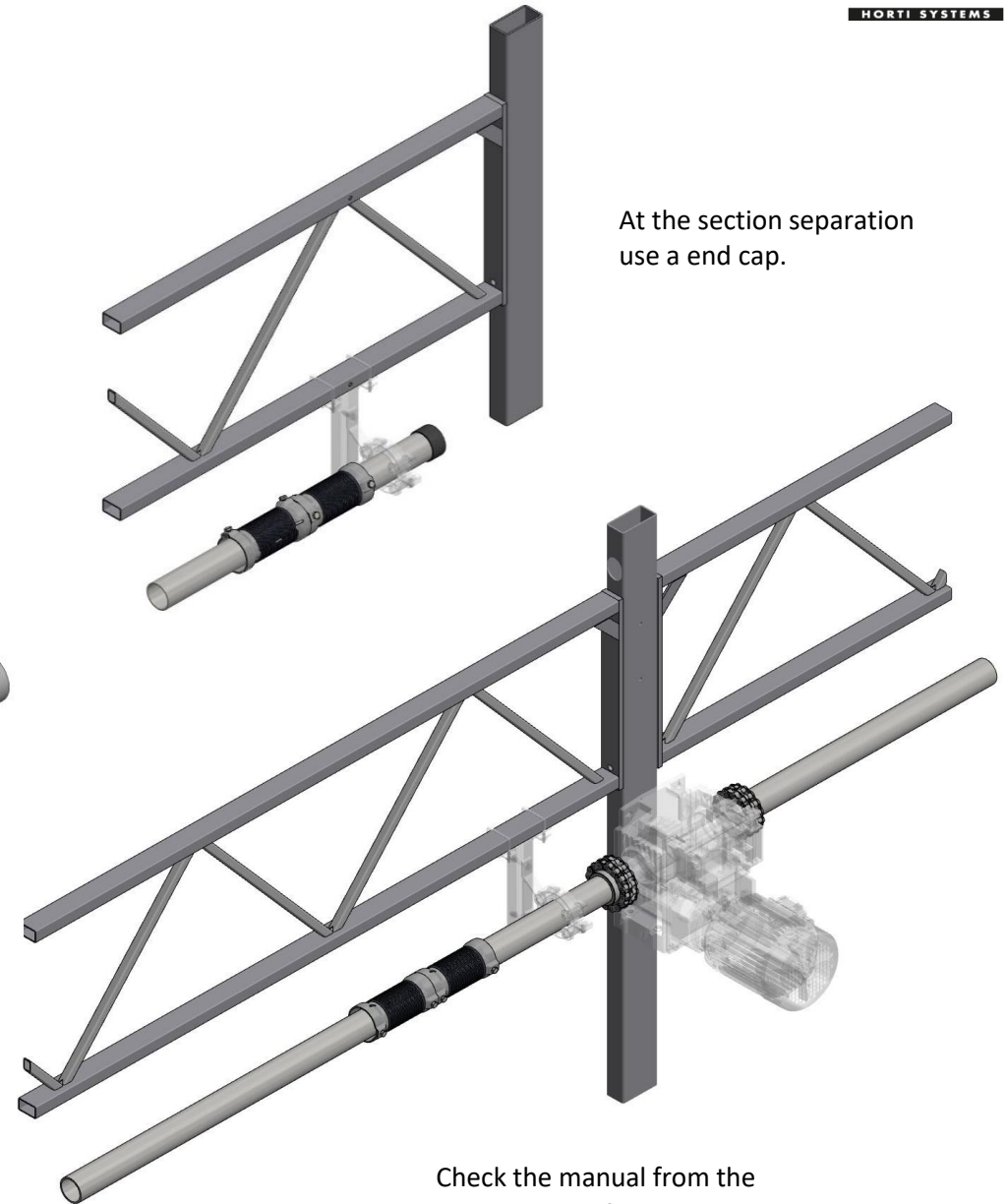
44.16.60

For tightening torque of the wire tensioner see chapter H.
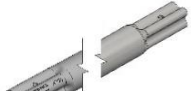
Attention: Slide the wire tensioner on the shaft before installing.

At the section separation use a end cap.

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

Gable Wall

Side Wall

A1 B1

A2 B2

44.10.15

(profile length)
43.10.-----
ValkClip 45 mm
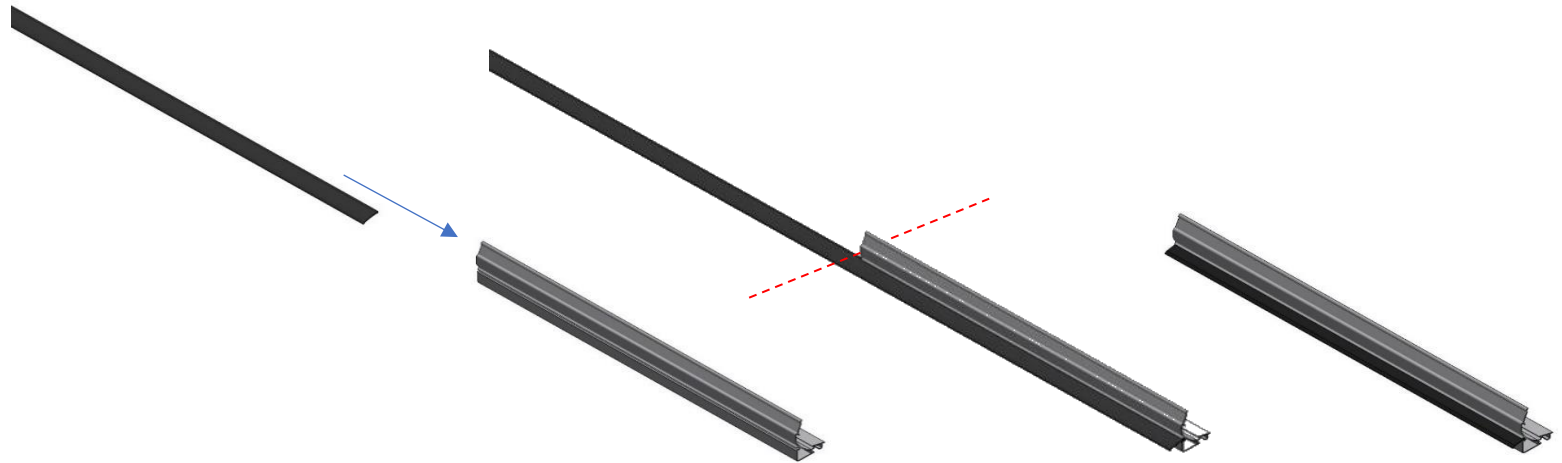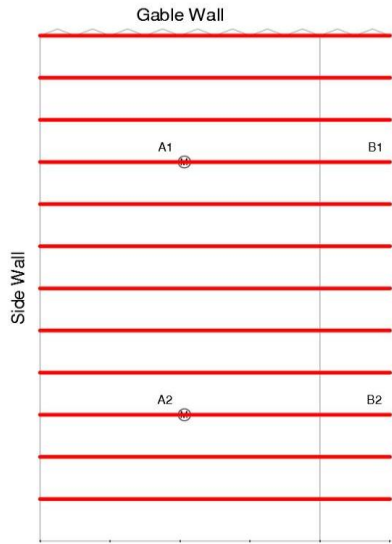
(profile length)
43.15.-----
ValkClip 54 mm

(profile length)
43.16.-----
ValkClip 65 mm

Insert and cut the rubber sealing strip before installing the profile.
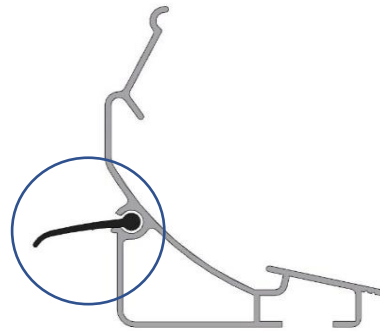
Make sure the rubber sealing strip is pointing downwards.

Hang the screen profile temporarily on the trellis.

Gable Wall

A1 (M)   B1

Side Wall

A2 (M)   B2

H + 2 mm
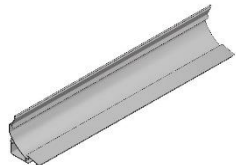
45.20.--

Package Side

H

Closing Side

Closing Side

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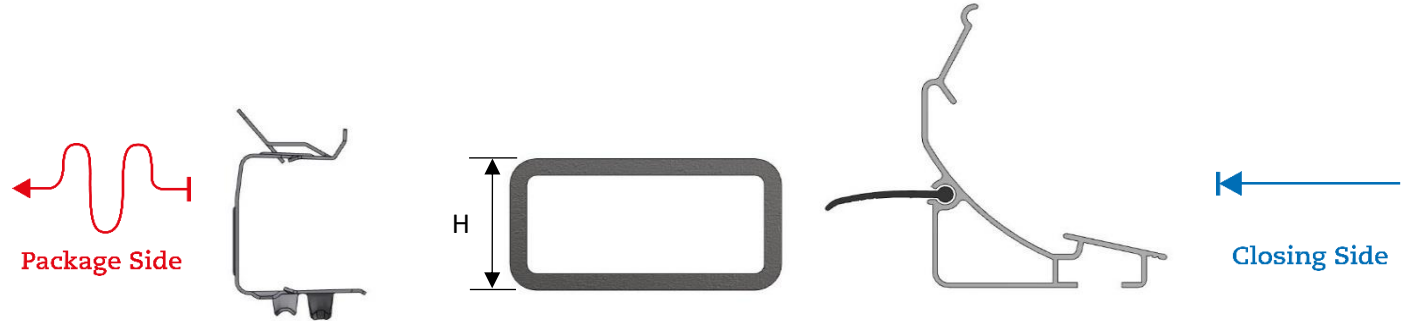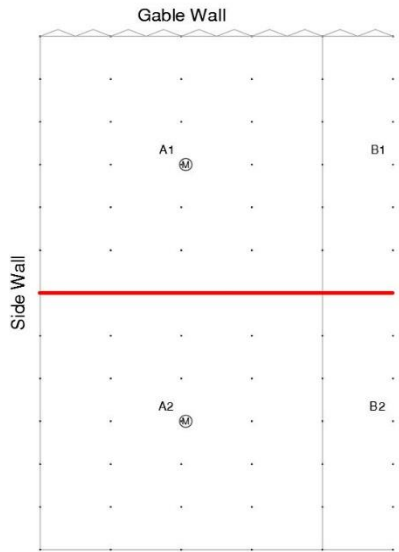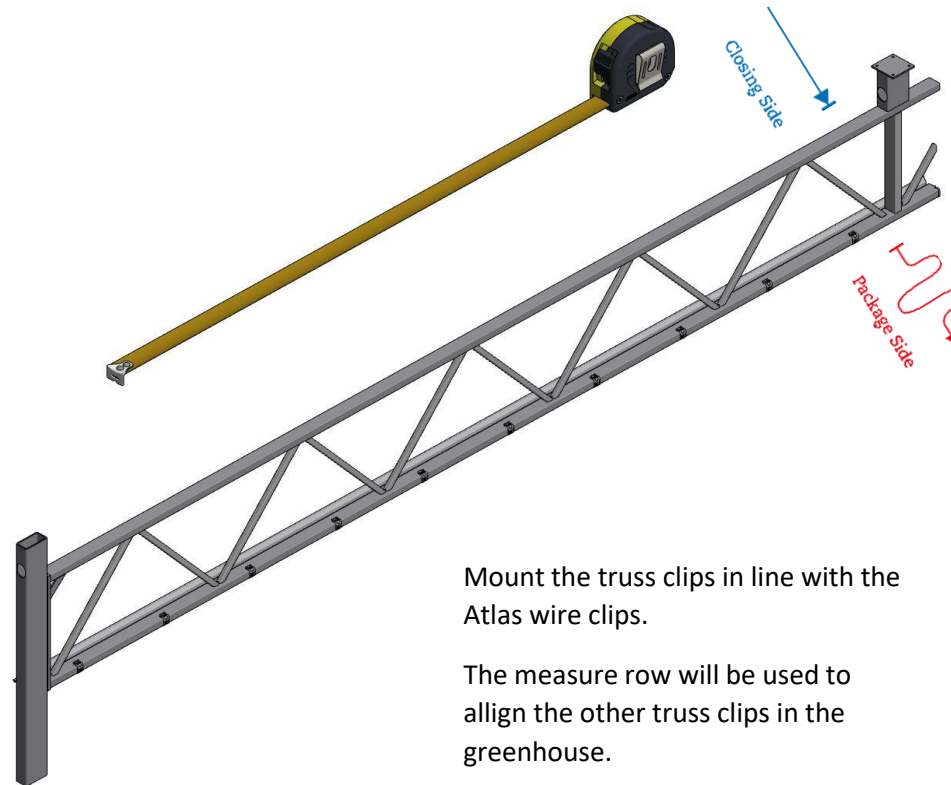
Mount the truss clips in line with the Atlas wire clips.

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

VAN DER VALK
HORTI SYSTEMS

Gable Wall

Side Wall

A1
B1

A2
B2

48.50.30

Gable ends.

Measure row.

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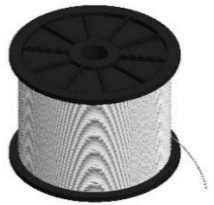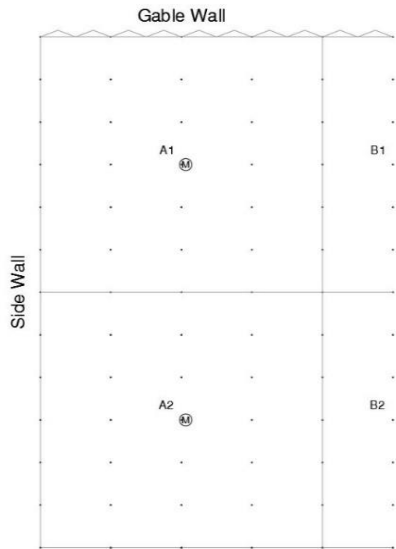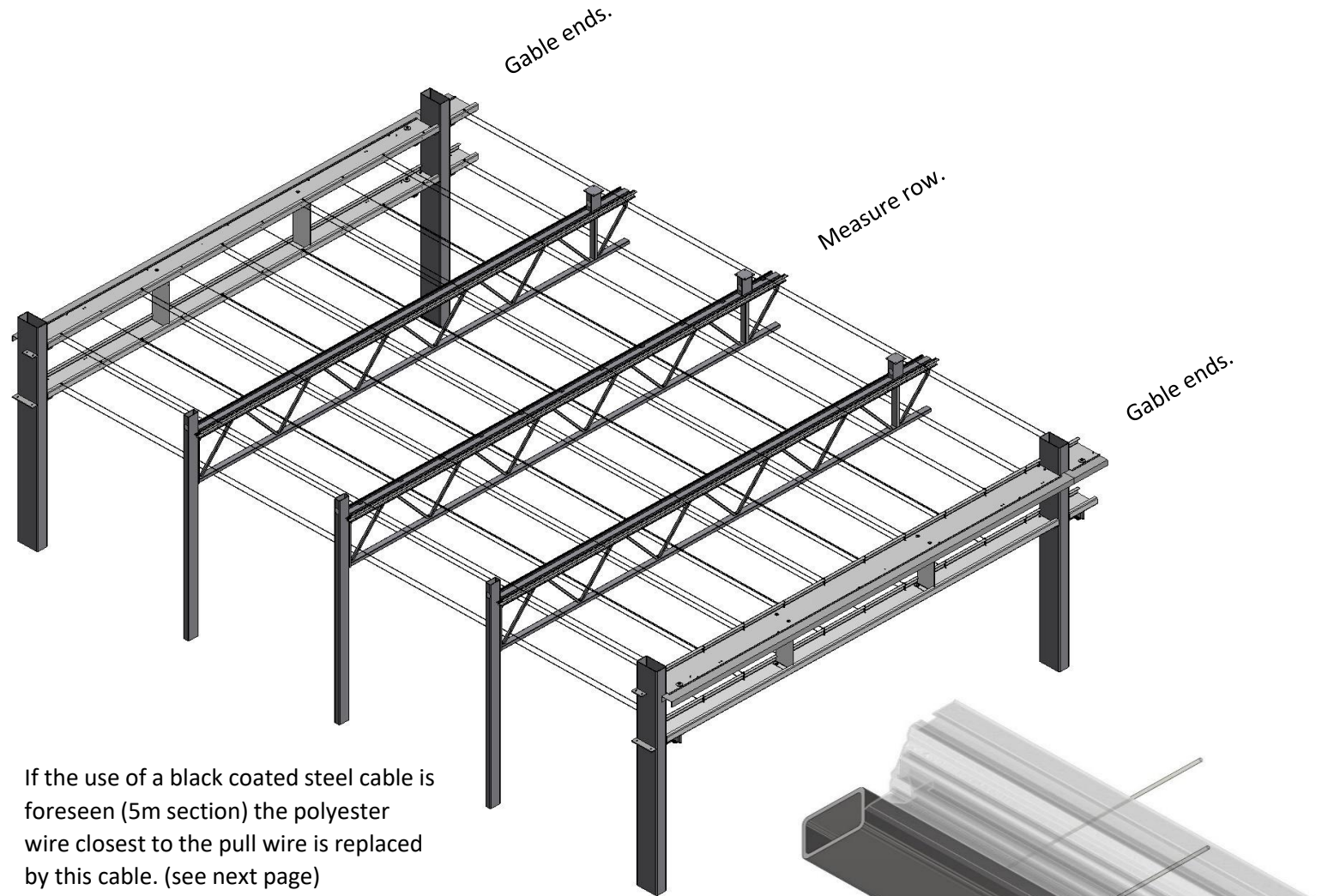
If the use of a black coated steel cable is foreseen (5m section) the polyester wire closest to the pull wire is replaced by this cable. (see next page)

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

VAN DER VALK
HORTI SYSTEMS

Gable Wall

Side Wall

A1   B1

A2   B2
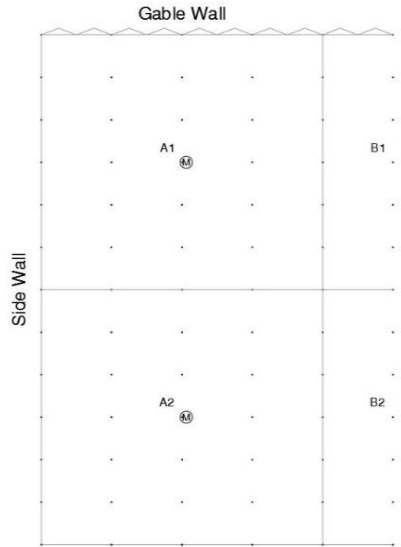
48.20.15

48.80.10

53.57.20

Gable Wall

Side Wall

A1
B1
A2
B2

48.10.17

48.80.12

53.57.20

44.30.10

53.57.15
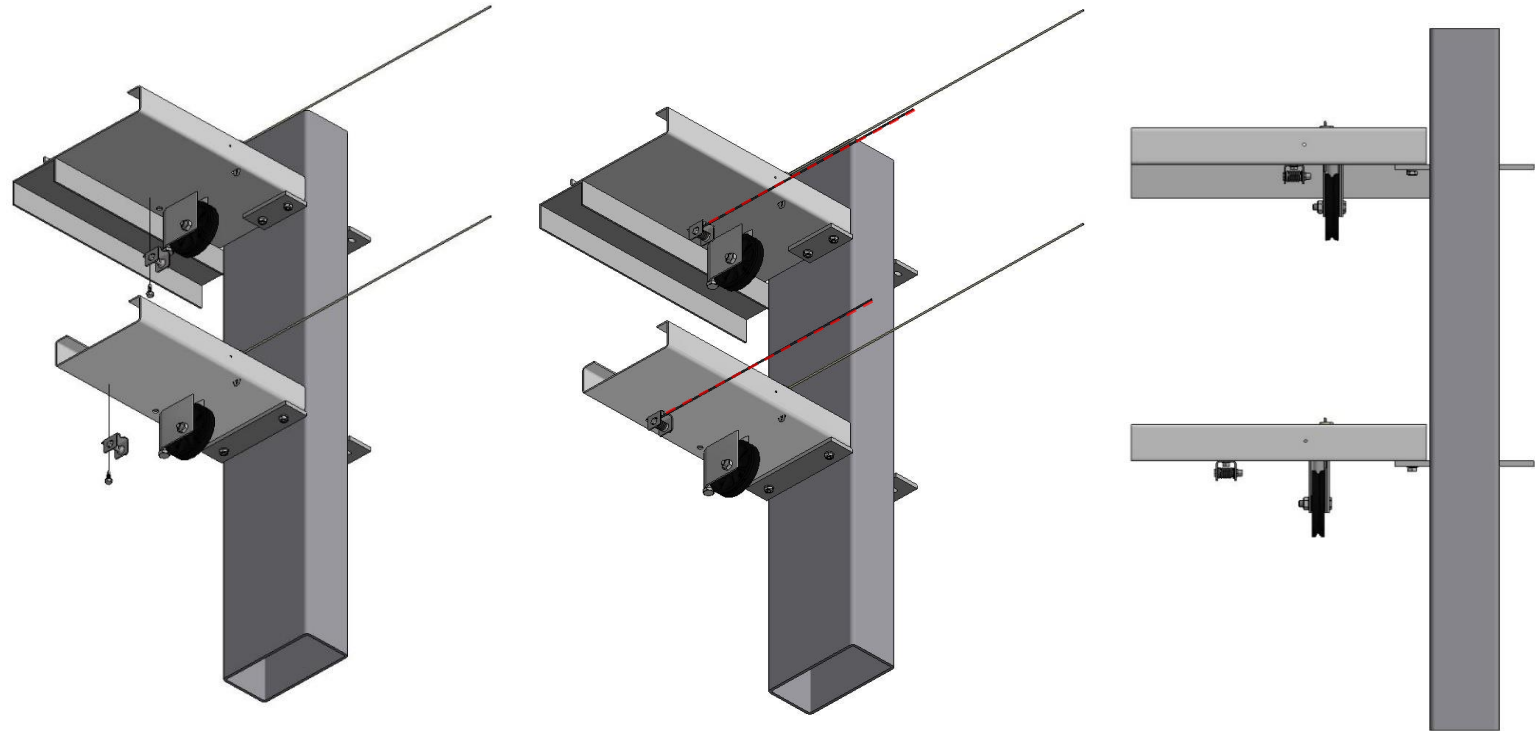
Attention: Only for the lower screen.
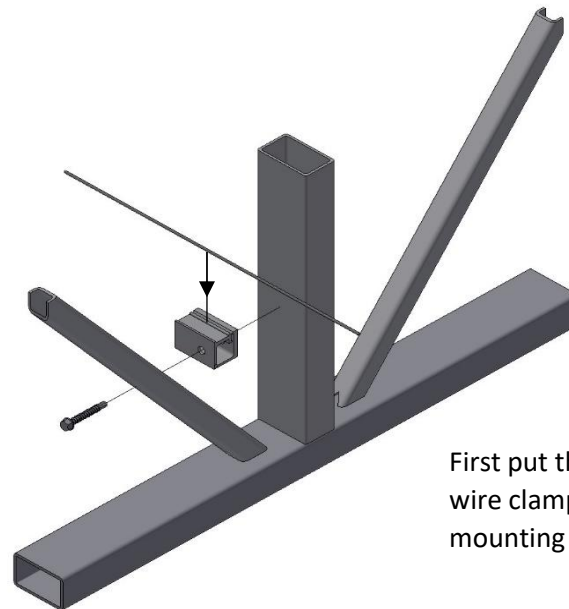
First put the steel cable in to the wire clamp (44.30.10) before mounting it on the trellis.

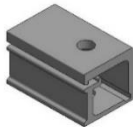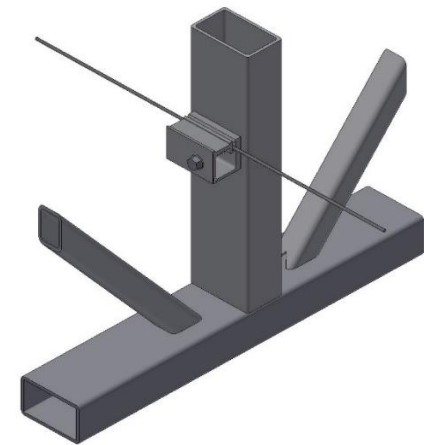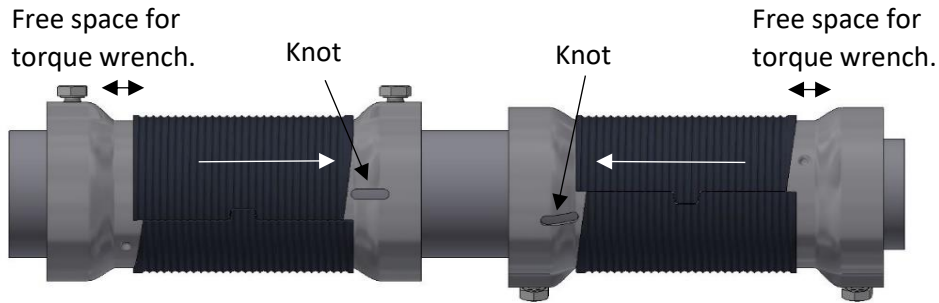**1.** Make sure that the plastic cable drum is moved to the side where the knot will be placed, this to make sure there is enough space on the other side for the torque wrench.

Free space for torque wrench.

Knot

Knot

Free space for 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.

Hole to indicate 22,5 windings.

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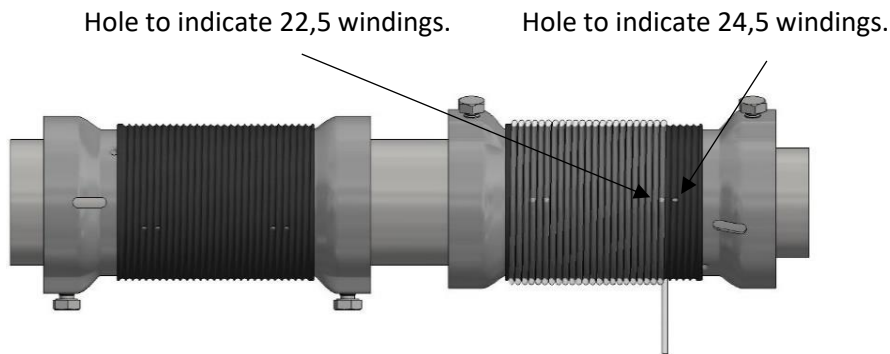
Section size [mm]	No. of windings on wire tensioner 1	No. of windings on wire tensioner 2
3200	3,5	17,5
3658	3,5	19,5
4000	3,5	20,5
4500	3,5	22,5
5000	3,5	24,5

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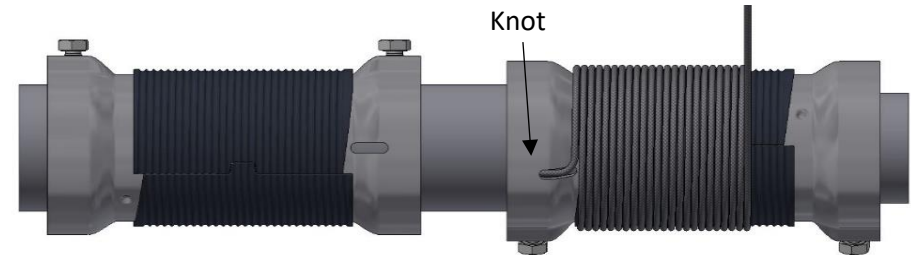
Knot

4. Slide the ValkWireTensioners together in such a way that the knots are hidden between the tensioners.
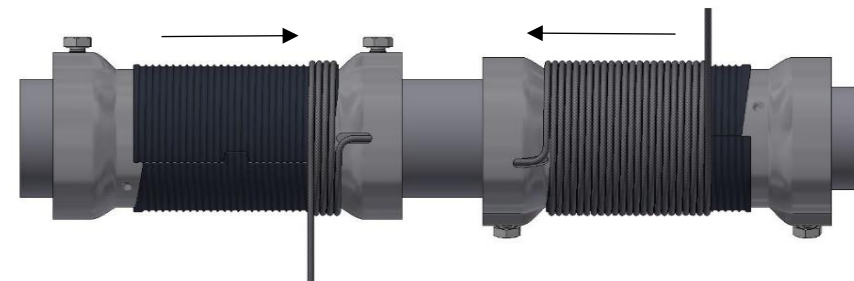
5. Finally, the wire should be wound on the ValkWireTensioner as shown in the picture below.

For the required wire tension, see page H2 and H3
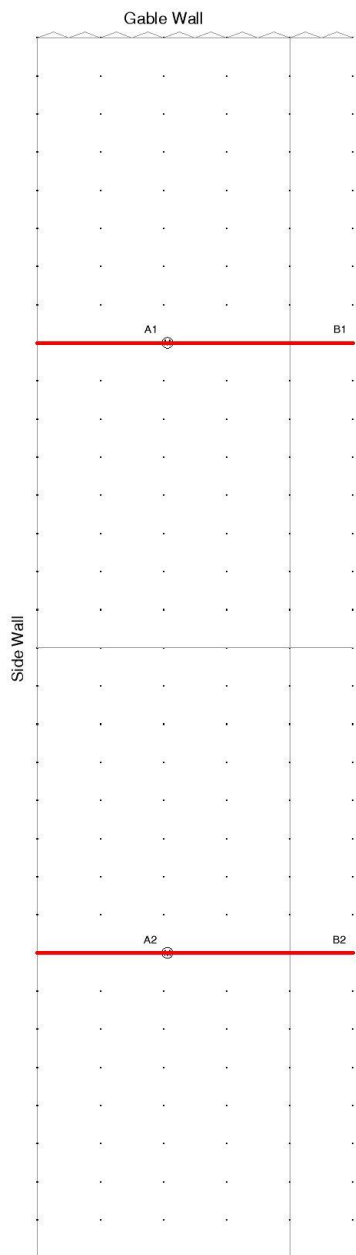
61.16.11

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.

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

For the required wire tension see page H3.

Gable Wall

Side Wall

A1   B1

A2   B2

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.

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

3 kg

6 kg

9 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
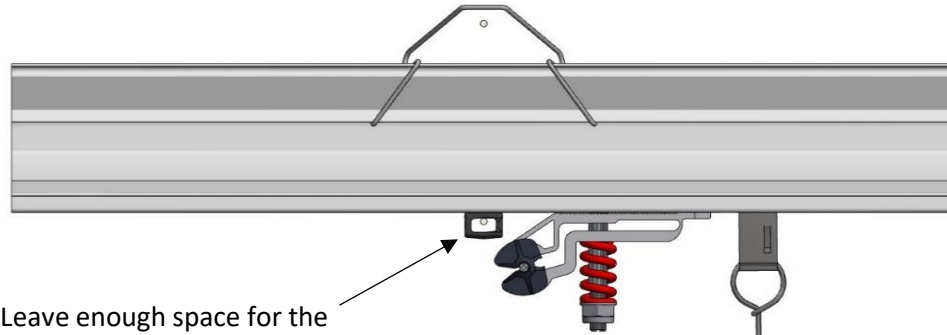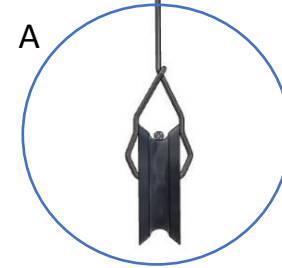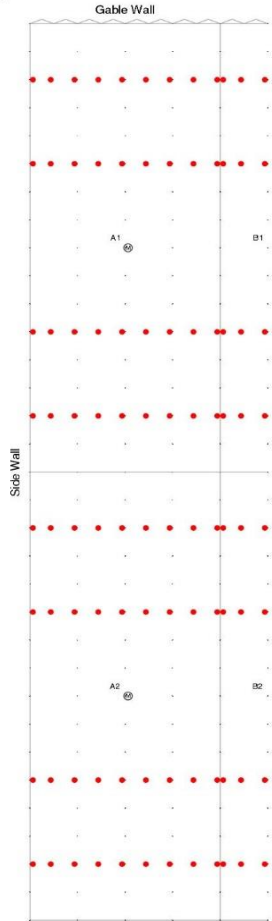system and when forming the screen package.

Gable Wall

Side Wall

A1

B1
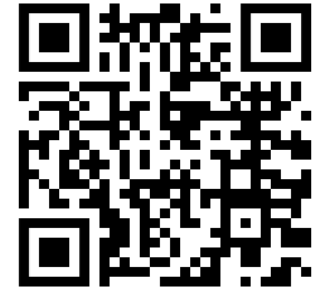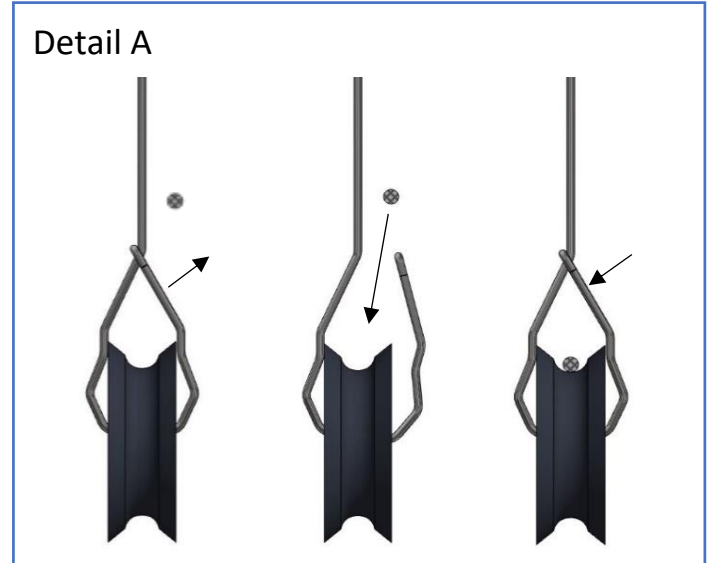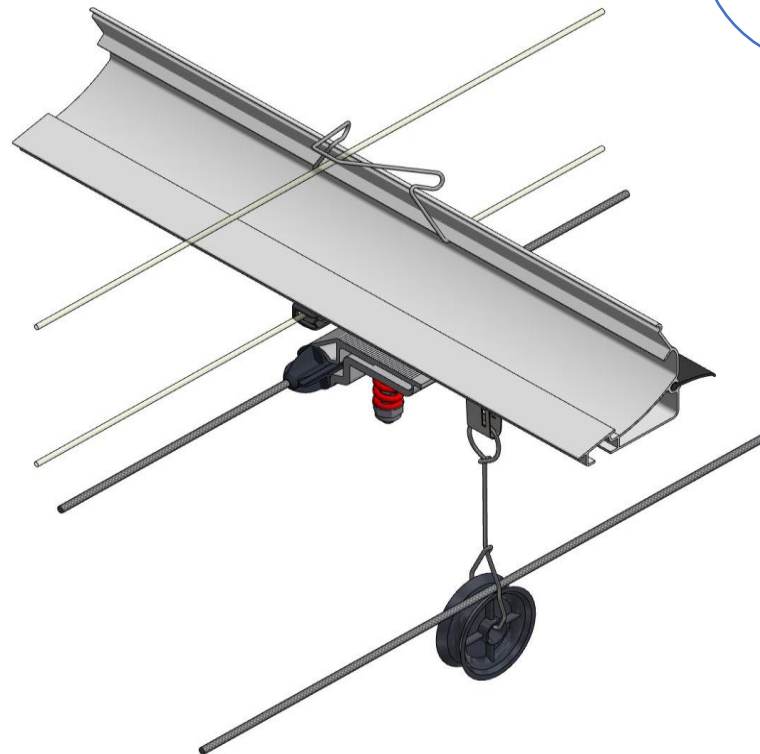
A2

B2

Mount the ValkPulley every 3rd section.

44.27.77

Leave enough space for the ValkWireGuide to slide.

A

The return wire in the ValkPulley is designed to swing.

Detail A

Gable Wall

Side Wall

A1   B1

A2   B2

H + 2 mm

45.20.--

45.22.10
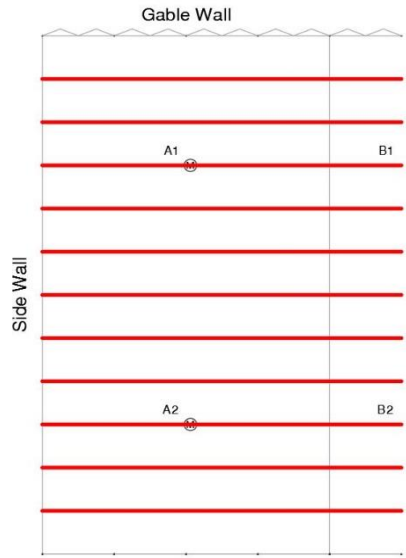
1. Slide the truss clip on the cord of the trellis 2. 'Click' the cloth stop finger on the truss clip.
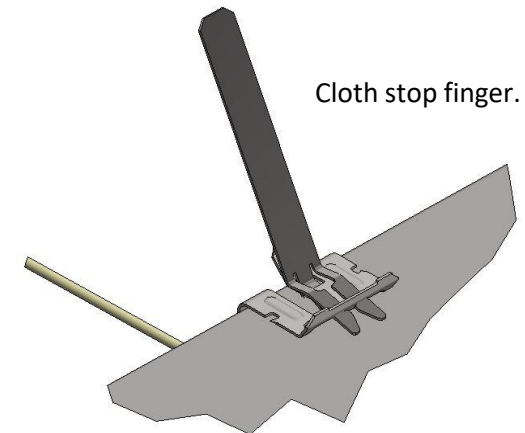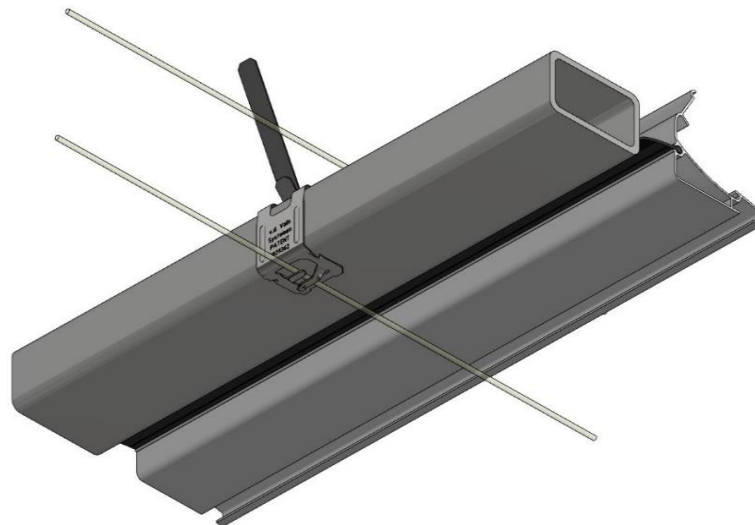3. Check if the stop finger is used every truss clip.

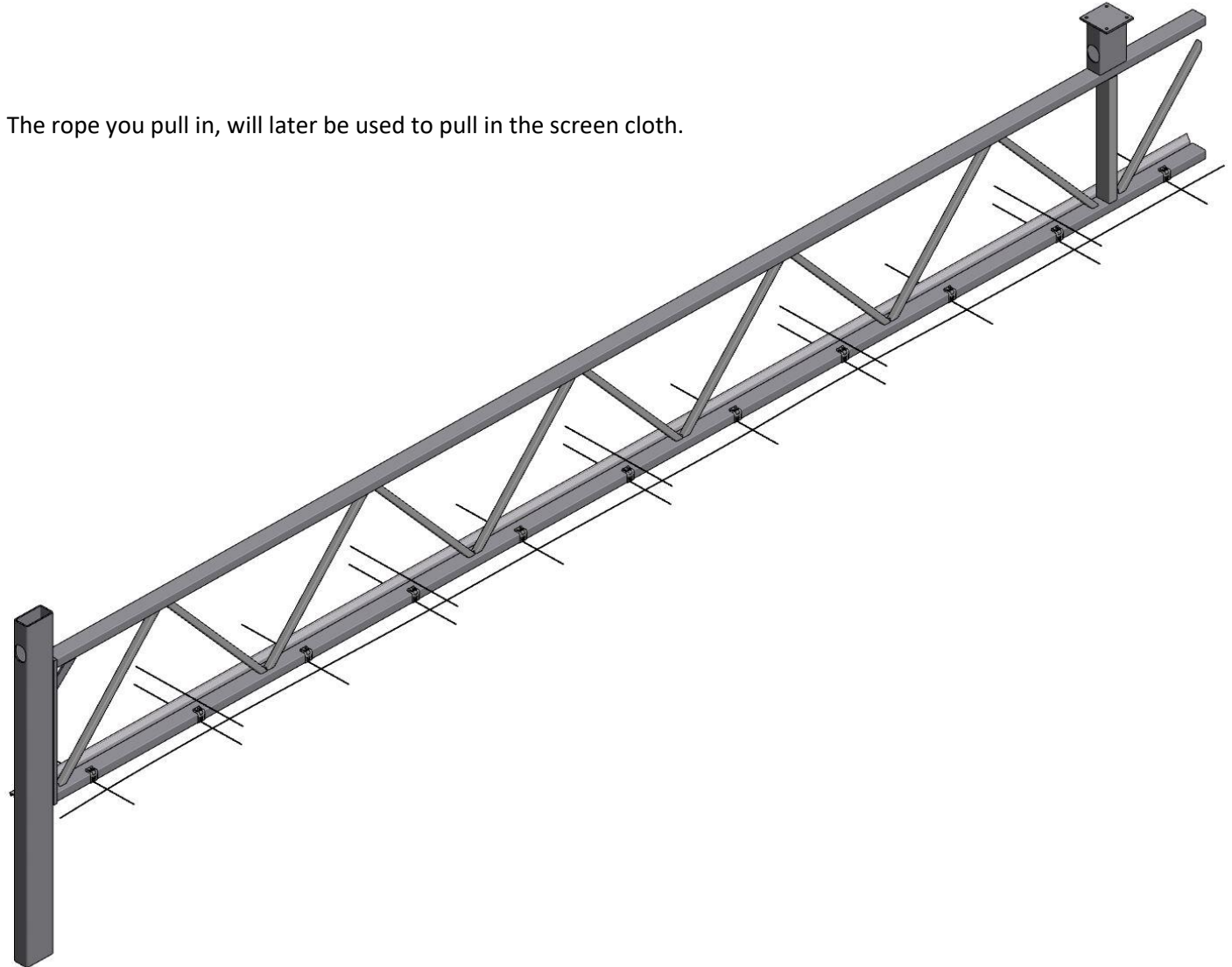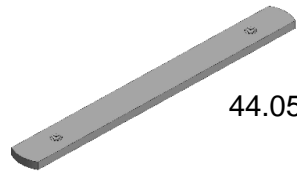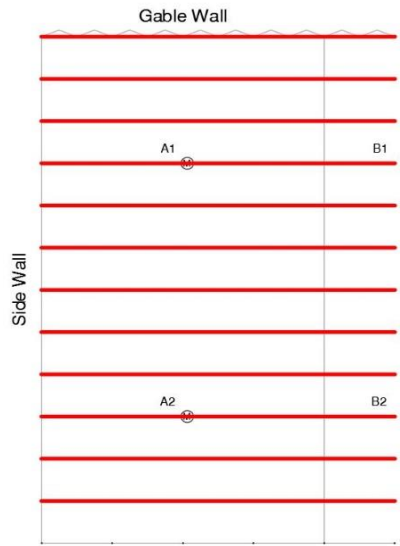Note: Make sure the polyester wire is in the bottom of the truss clip.

Cloth stop finger.

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

48.55.03

Gable Wall

Side Wall

A1   B1

A2   B2

44.05.10

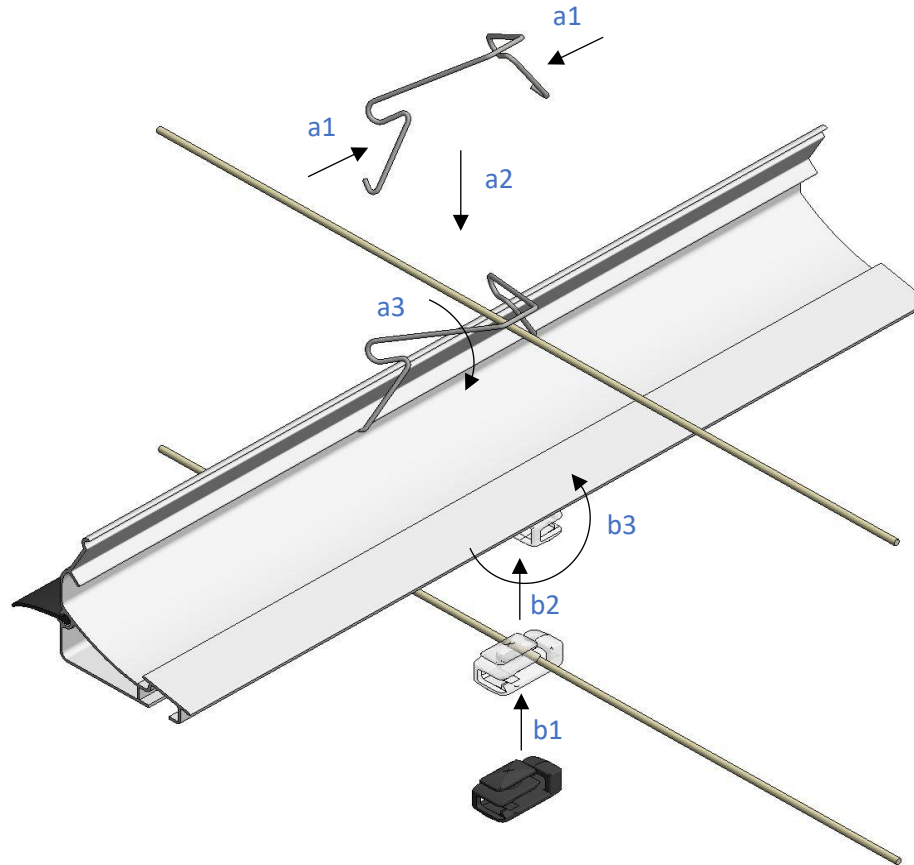55.30.10   M6x10
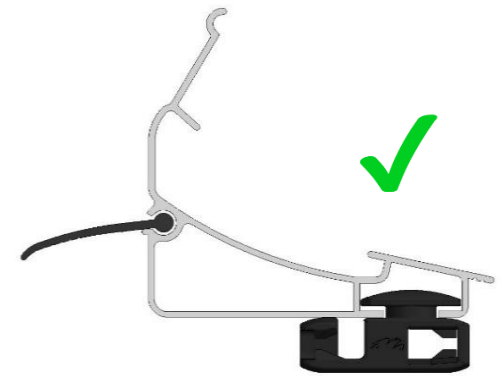
Gable Wall

Side Wall

A1   B1

A2   B2

44.15.27

45.15.15
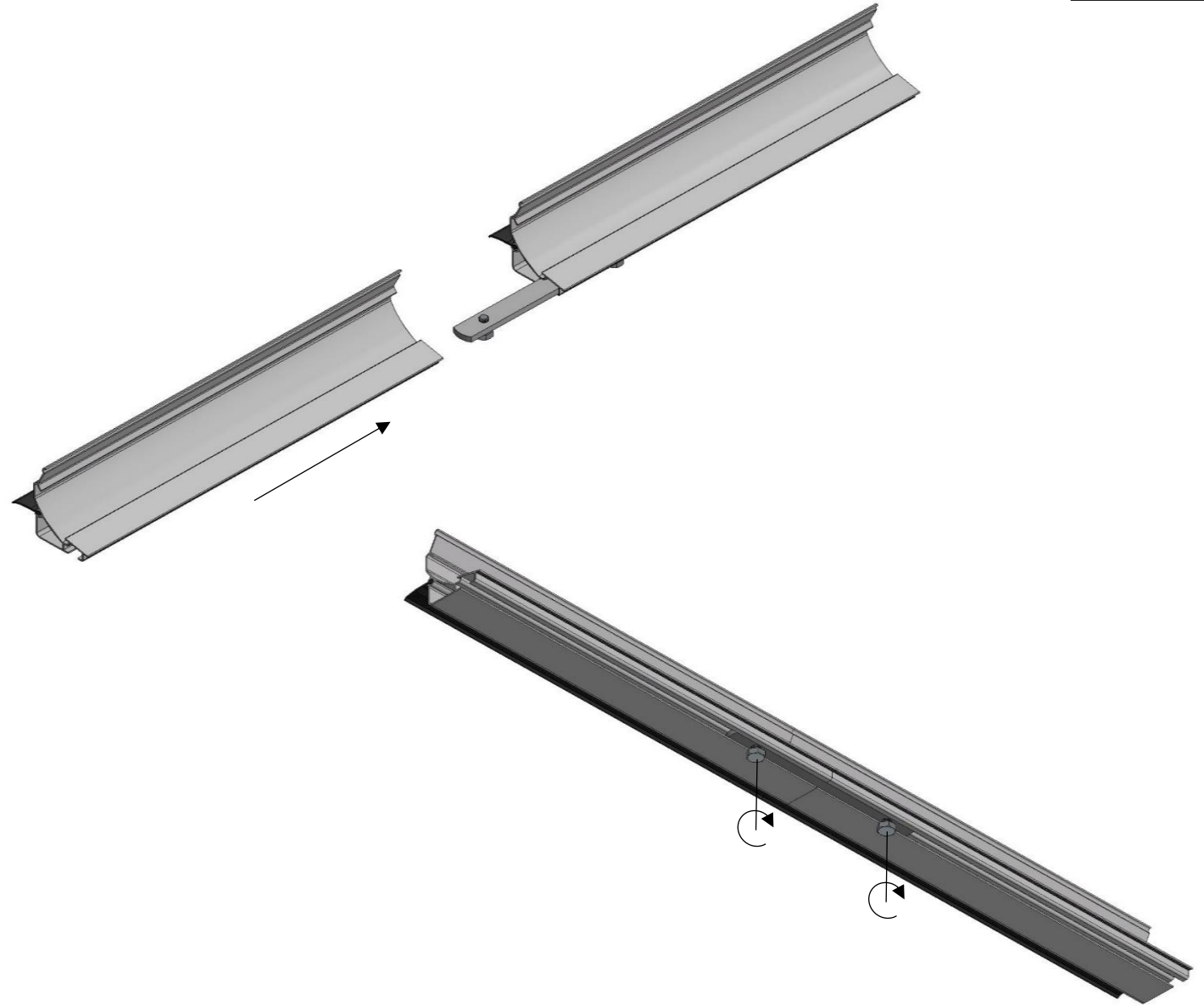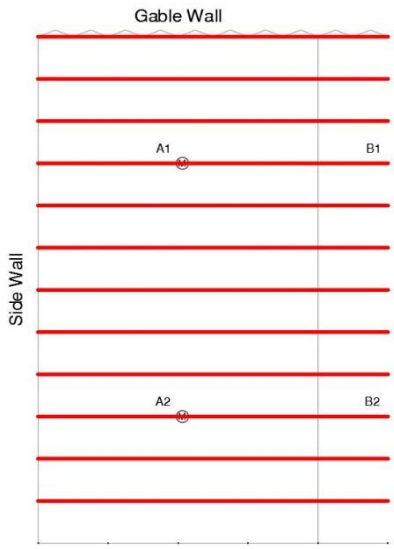
a1. Bend the two edges of the clip inward.
a2. Place the clip on top of the profile and over the wire.
a3. Turn the clip and snap the edges of the clip under the edge of the profile.

a1

a1

a2

a3

b3

b2

b1

Mount the ValkWireGuide with the opening as shown.

✔

✗

b1. Slide the ValkWireGuide on the polyester wire.
b2. Insert the ValkWireGuide in the profile chamber.
b3. Turn the ValkWireGuide until the wire 'clicks' in the ValkWireGuide, make sure the opening is on the correct side (see the pictures on the right).
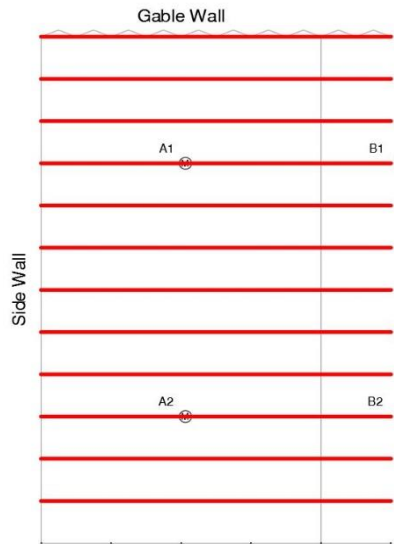
VAN DER VALK
HORTI SYSTEMS

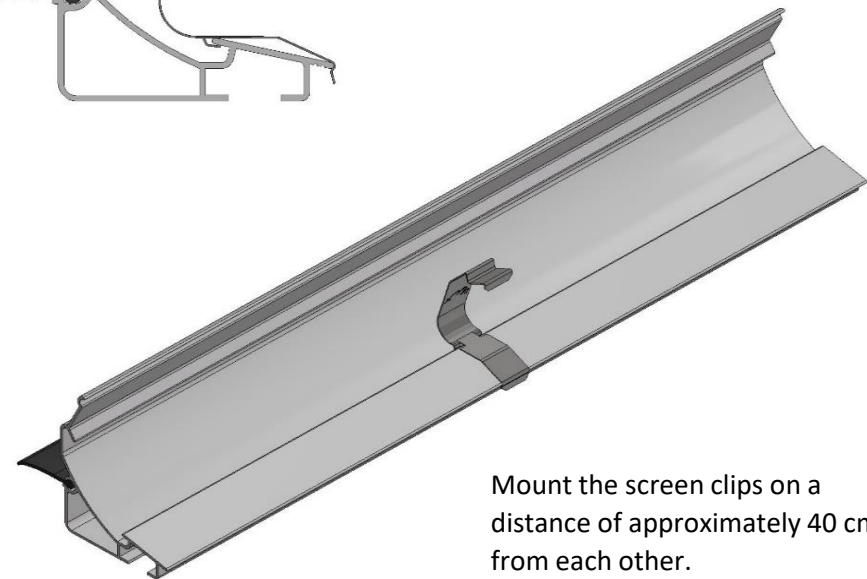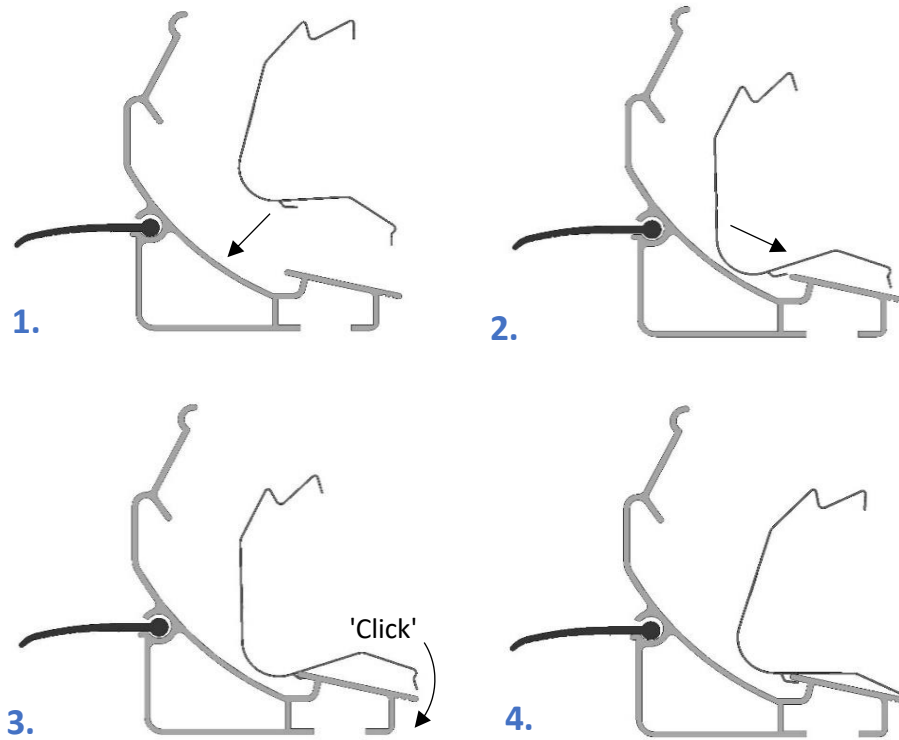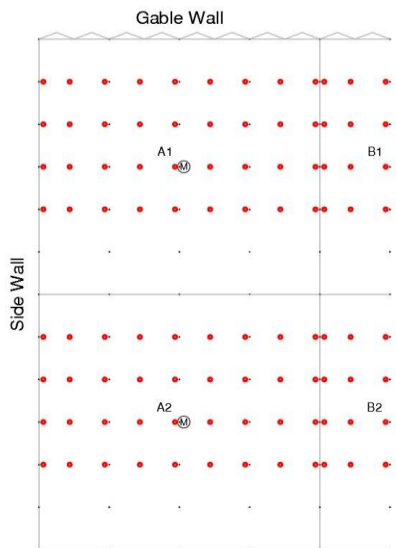Gable Wall

Side Wall

A1   B1

A2   B2

45.25.10

1.

2.

3.   'Click'

4.
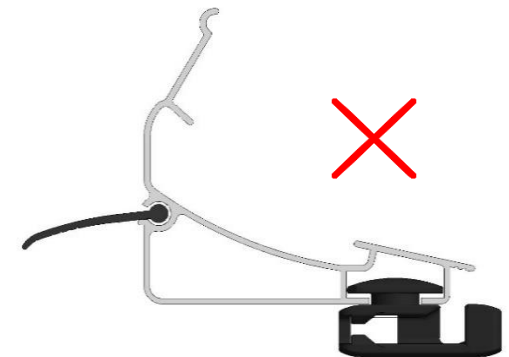
Mount the screen clips on a distance of approximately 40 cm from each other.

VAN DER VALK
HORTI SYSTEMS

Gable Wall

Side Wall

A1 Ⓜ   B1

A2 Ⓜ   B2
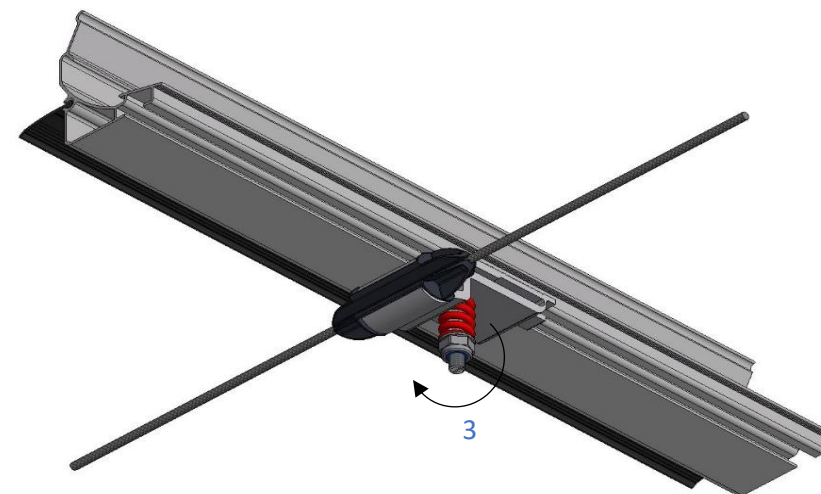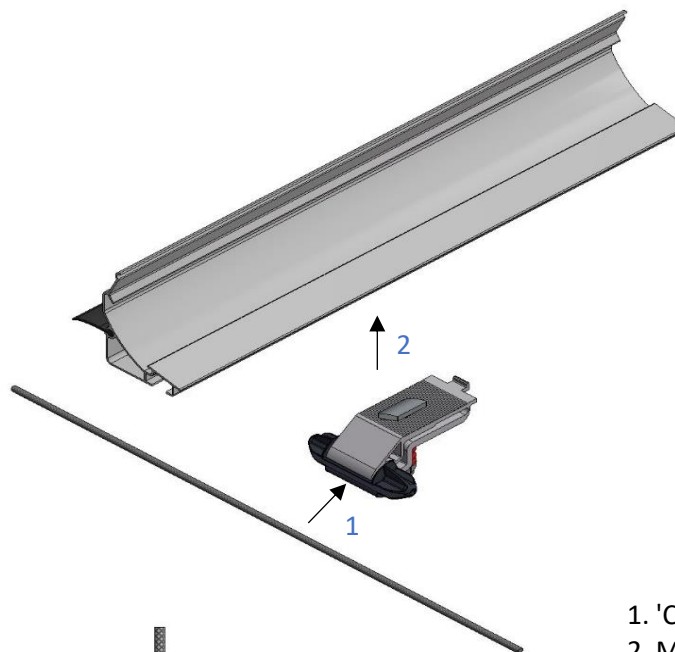
44.40.34 (green spring 3 kg)
44.40.35 (blank spring 6 kg)
44.40.36 (red spring 9 kg)

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.

2

1

3

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.
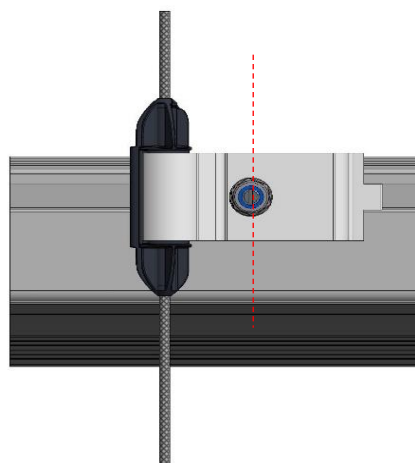
Note: Make sure that the line on the bottom of the bolt is parallel to the cable.
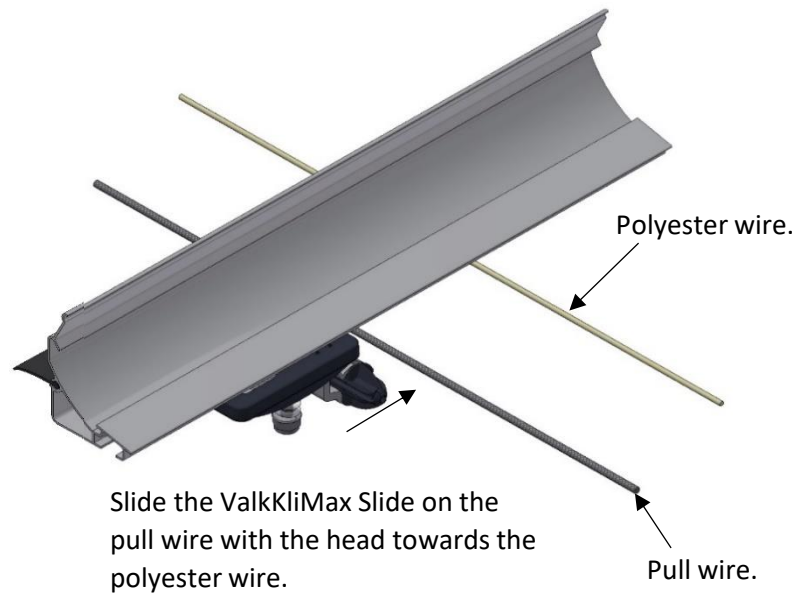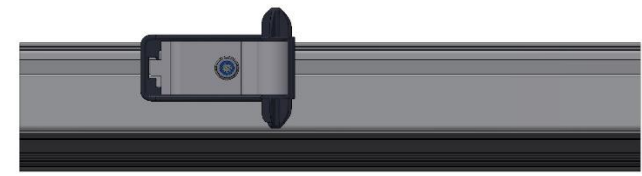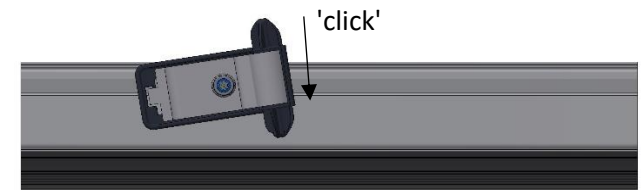
VAN DER VALK
HORTI SYSTEMS

Gable Wall

Side Wall

A1 Ⓜ   B1

A2 Ⓜ   B2

44.40.44 (green spring 3 kg)
44.40.45 (blue spring, 6 kg)
44.40.46 (black spring 9 kg)
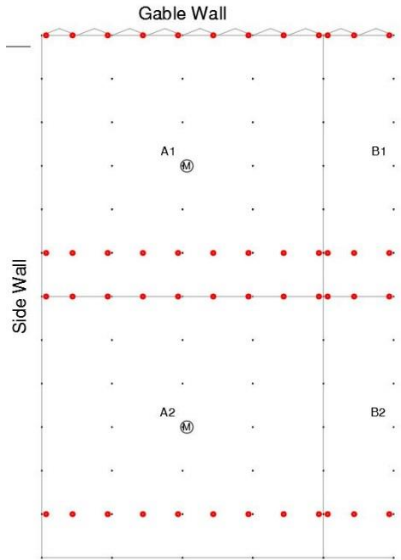
See project specific drawing for mounting the correct ValkKliMax Slide at the correct location!
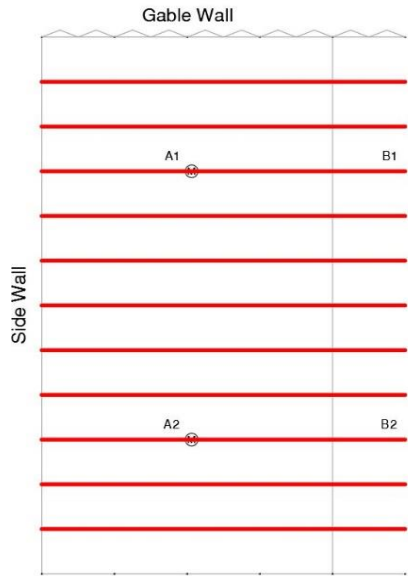
'click'

Polyester wire.

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

Pull wire.

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

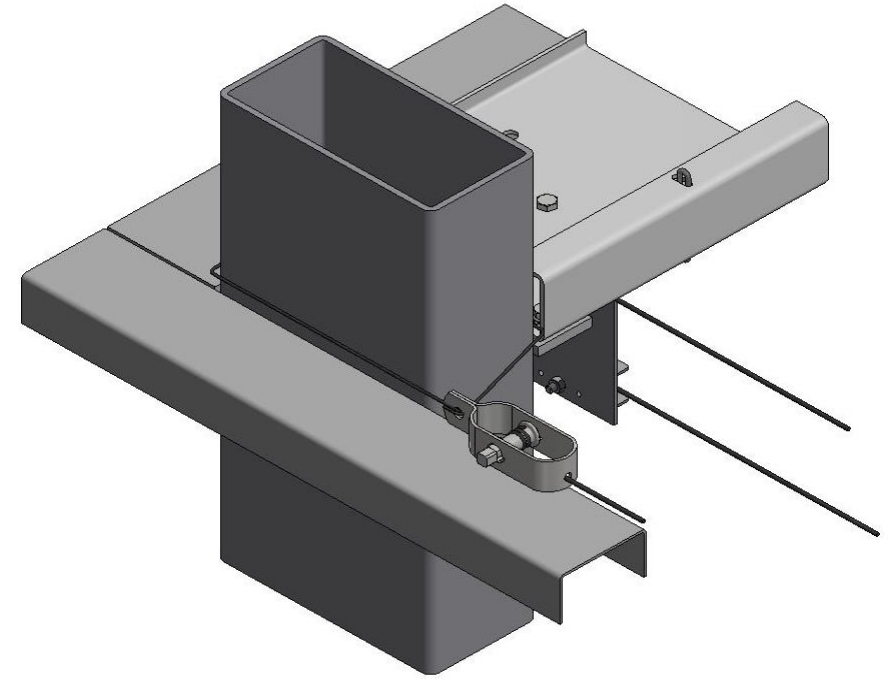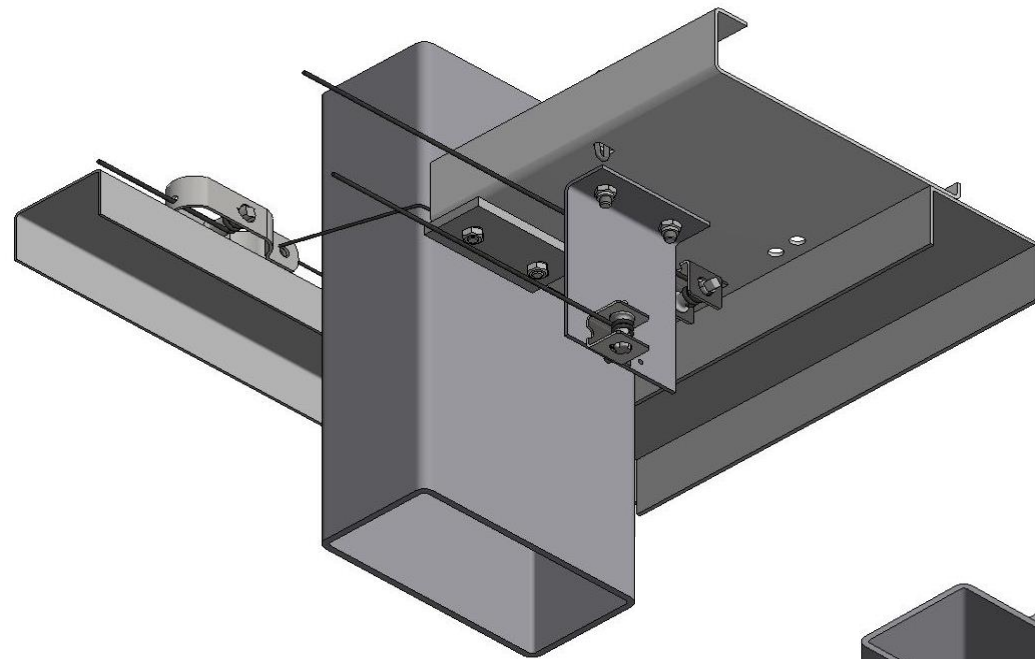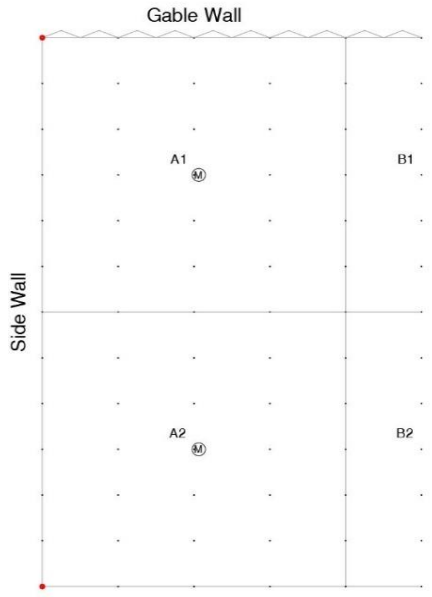Gable Wall

Side Wall

A1   B1

A2   B2

Retract the screen cloth according to the regulations from your cloth supplier.
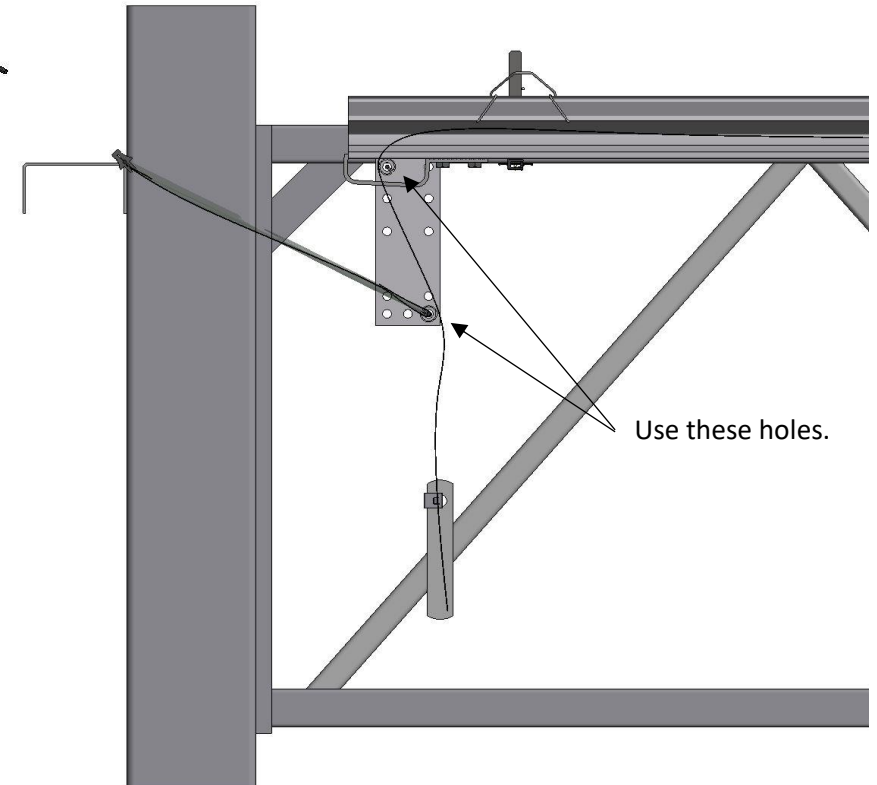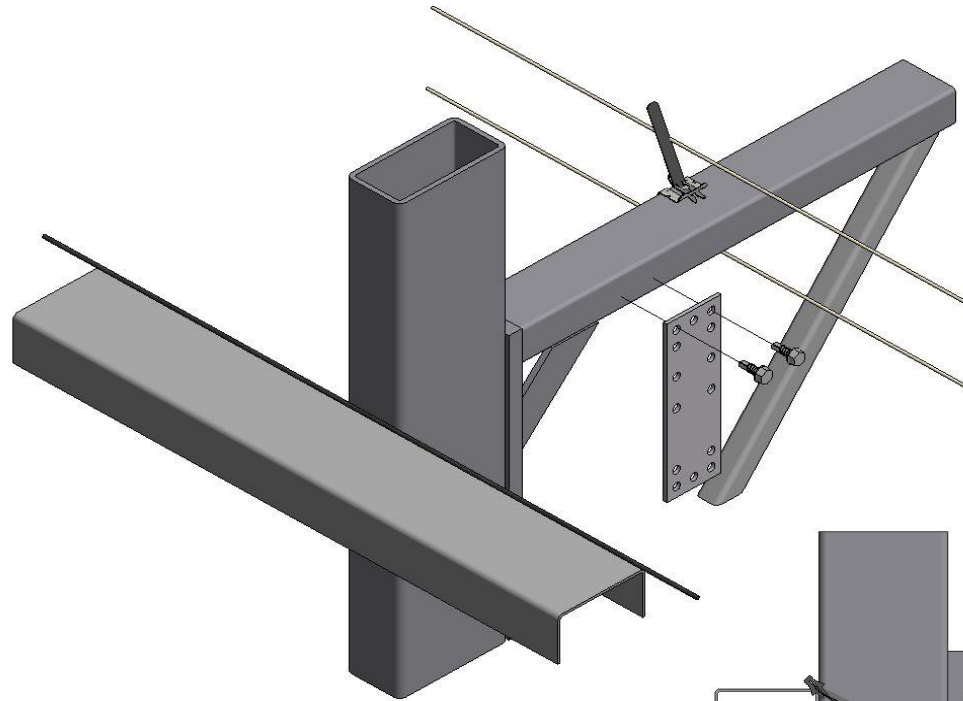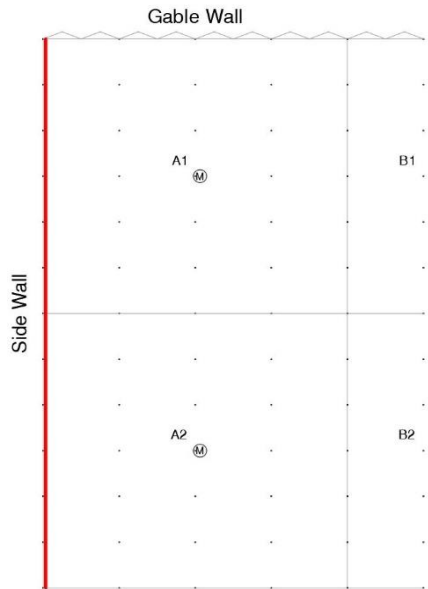
'Click'
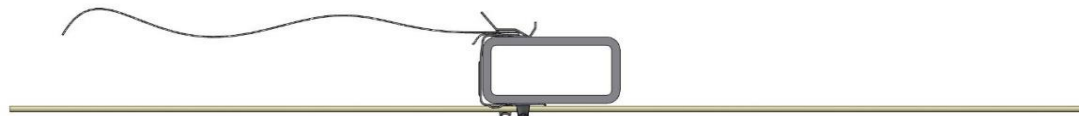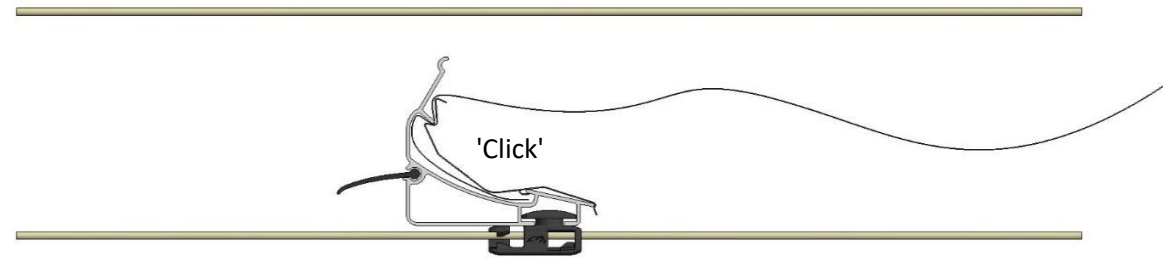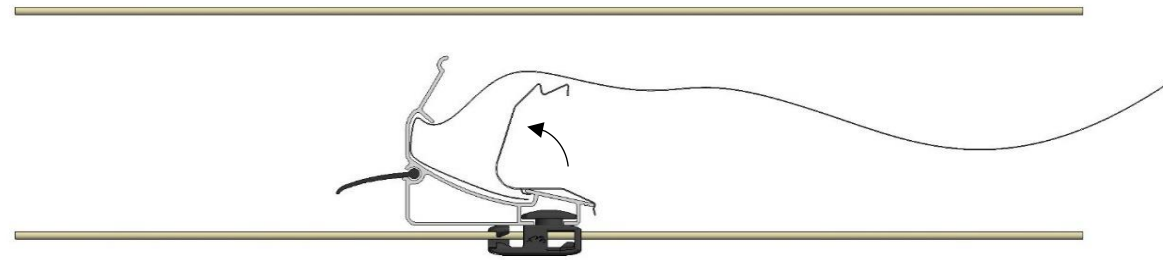
To attach the cloth to the ValkTrussClips, use for example a flexible putty knife.
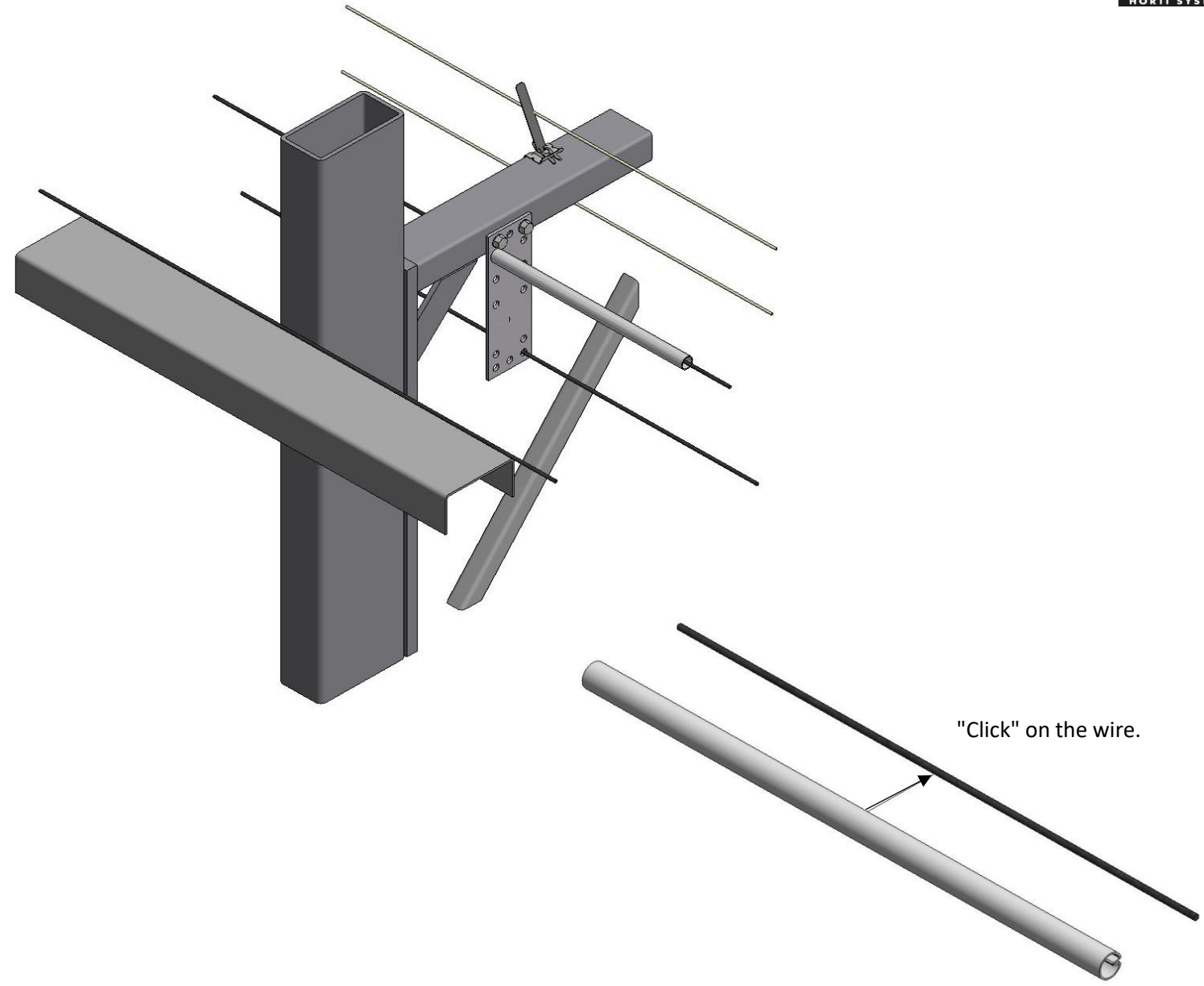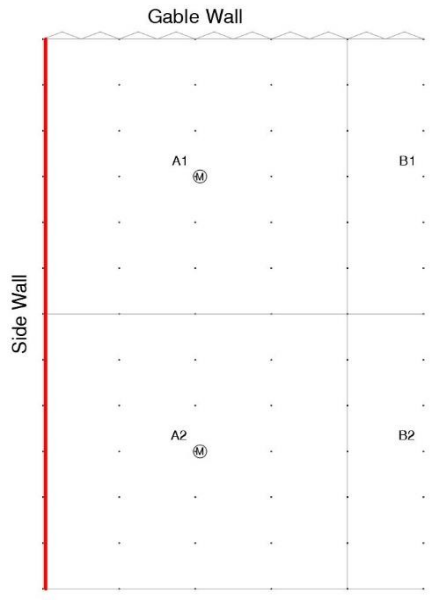
Gable Wall

Side Wall

A1 Ⓜ   B1

A2 Ⓜ   B2

44.84.25

55.40.20   M8x20

55.40.05   M8

48.80.10

55.30.16   M6x16

55.30.00   M6

48.80.12

48.20.15

Gable Wall

Side Wall

A1
B1
M

A2
B2
M

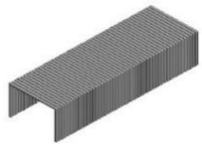44.27.15

53.57.20

Use these holes.

Gable Wall

Side Wall

A1
Ⓜ

B1

A2
Ⓜ

B2

48.60.-----

"Click" on the wire.

Gable Wall

Side Wall

A1   B1

A2   B2

44.27.05

44.05.05

55.30.10

Gable Wall

Side Wall

A1 Ⓜ   B1

A2 Ⓜ   B2

61.10.06

44.15.40

48.60.-----

Staple approx. every 20cm.

Clip approx. every 25cm.

Gable Wall

Side Wall

A1 Ⓜ

B1

A2 Ⓜ

B2
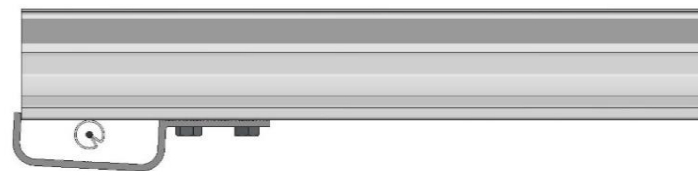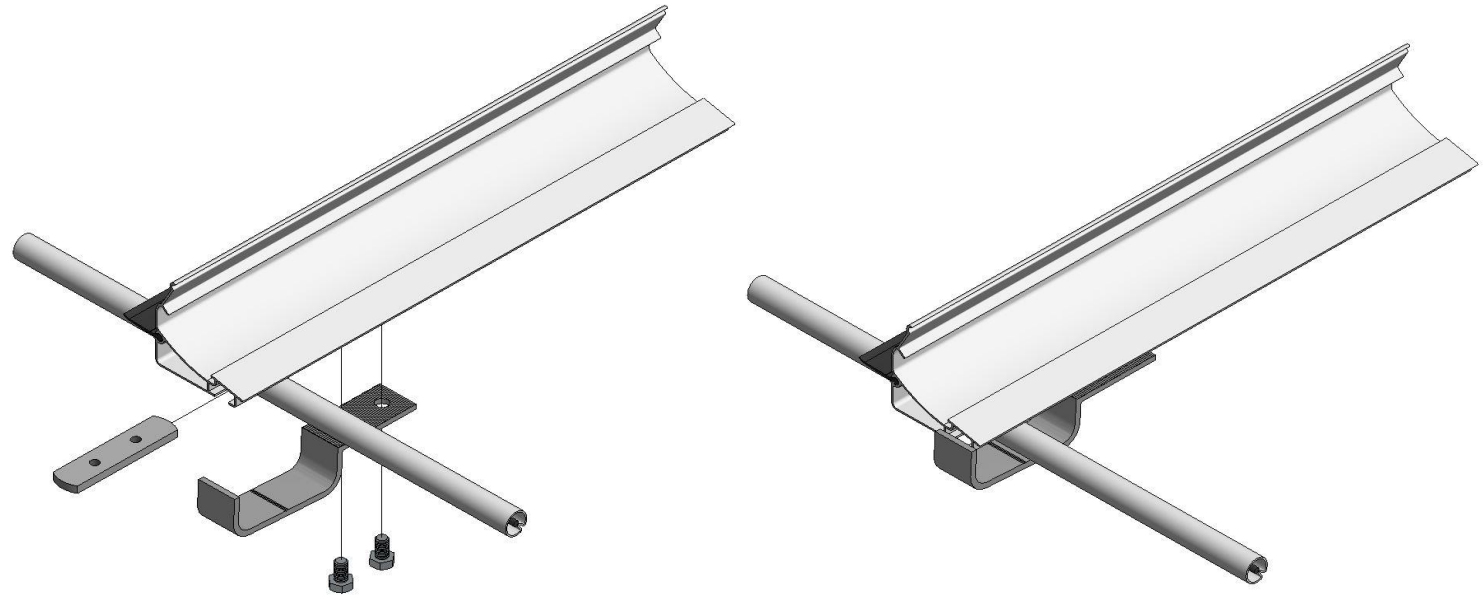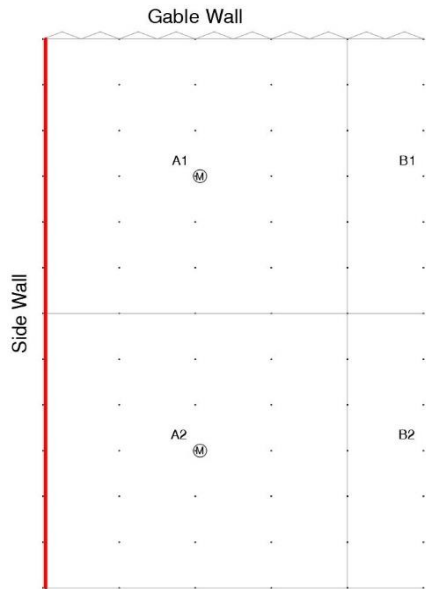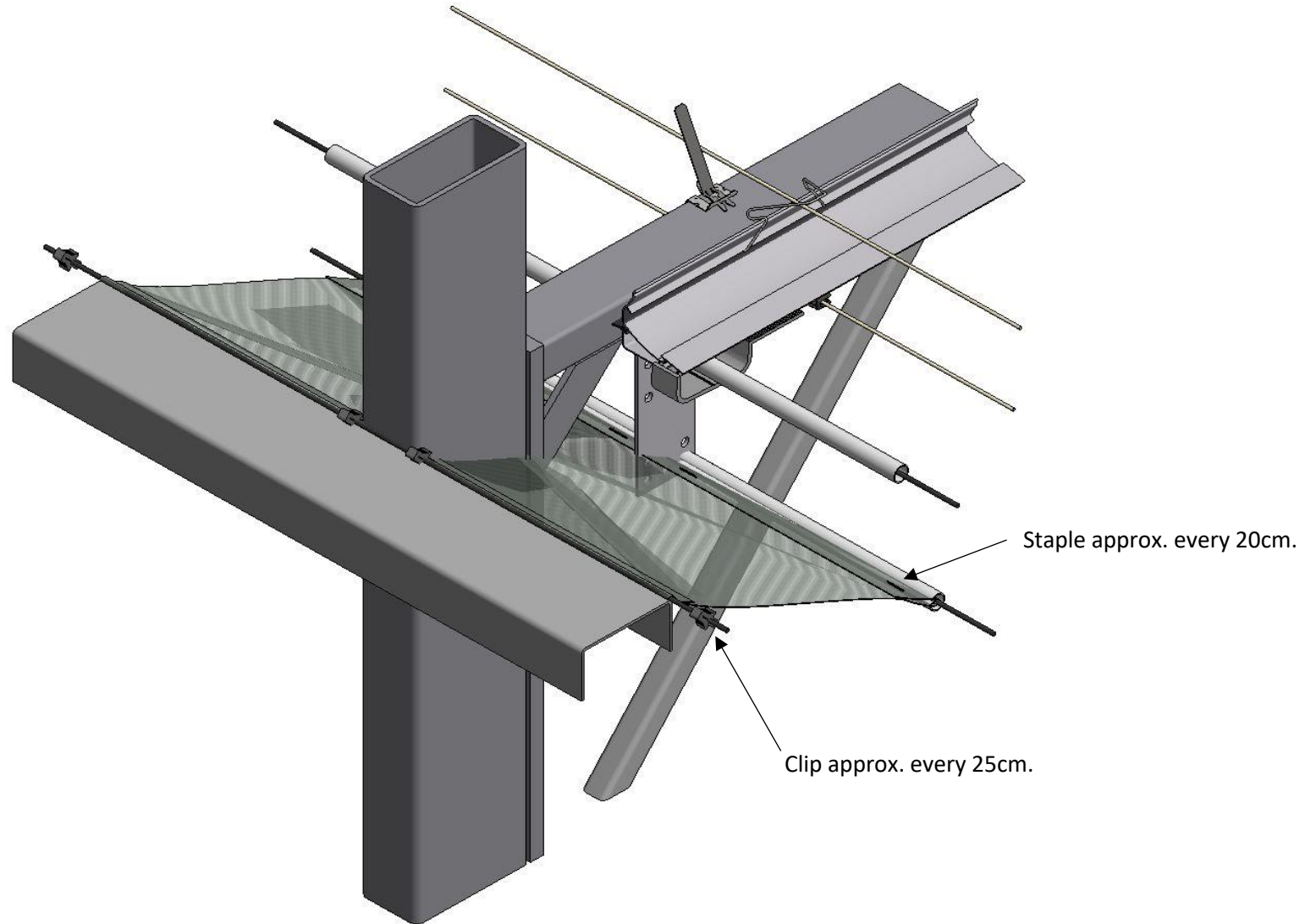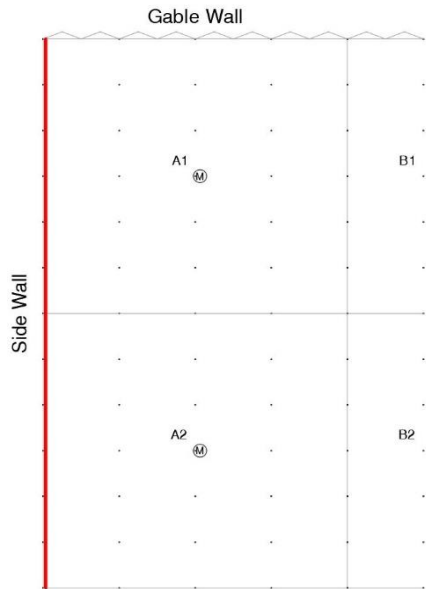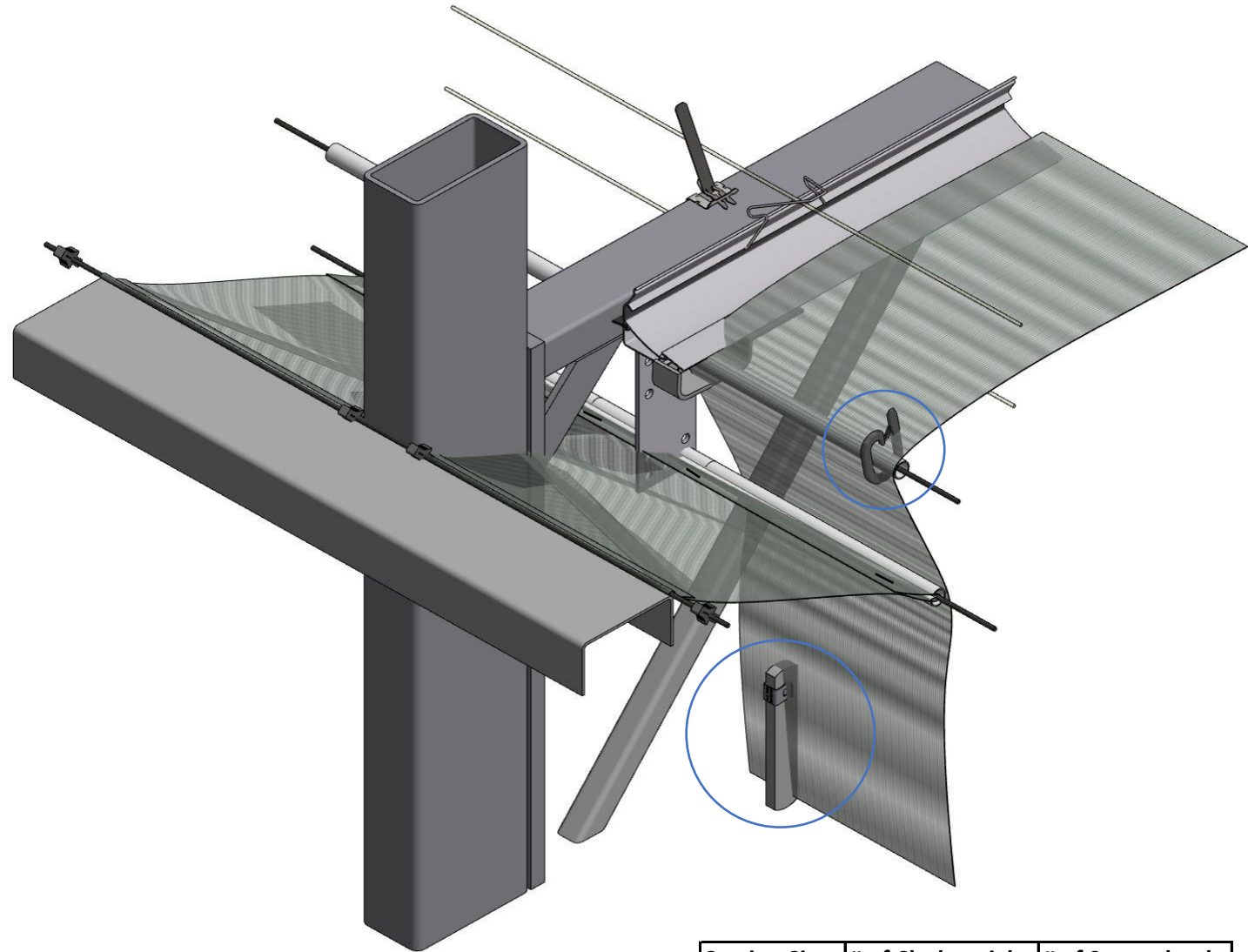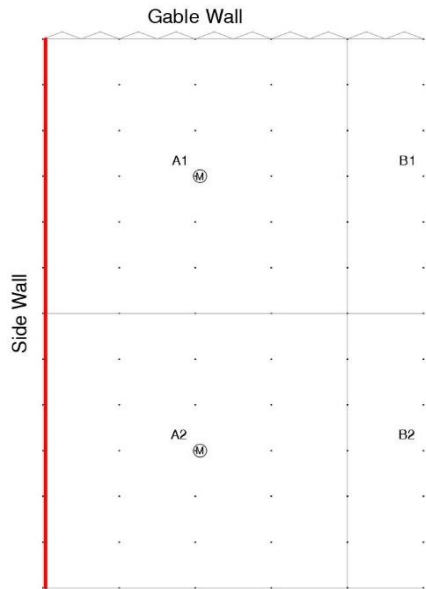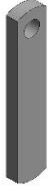
44.70.25

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