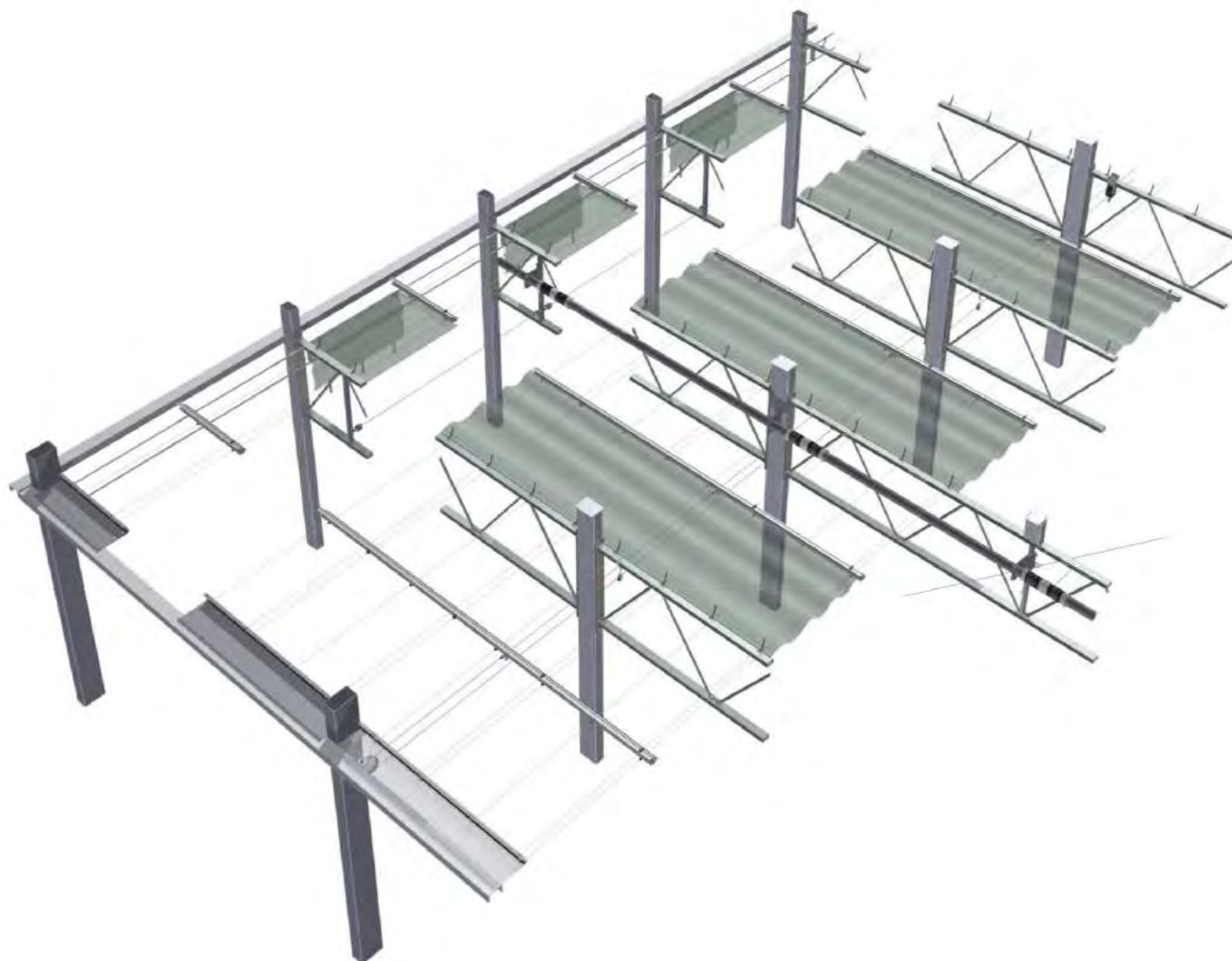


Van der Valk Systemen

DEVELOPER AND PRODUCER OF VENTILATION AND SCREENING SYSTEMS FOR GREENHOUSES

General Installation manual ValkScreenVision



Van der Valk Systemen

DEVELOPER AND PRODUCER OF VENTILATION AND SCREENING SYSTEMS FOR GREENHOUSES

Manual based on the date below

- Use only with materials of Van der Valk Systemen.
- Dimensions in mm.
- ValkScreenVision
- Drive supplier Lock or Ridder.
- Position of motor by installer
- Drawing based on 38mm profile with 2 pull wires per truss.
- Manual is, in consultation, also uitable for 22 mm profile with 3 pull wires per truss.
- Hang down: other options possible.
- For 3 pull wires per truss see pages: 02C, 06C, 09B, 11C.

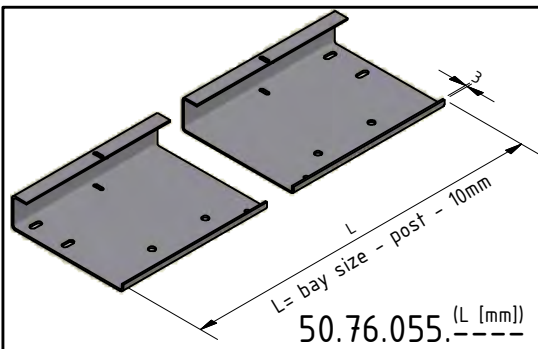
This manual is not project specific.


This manual is not legally binding.

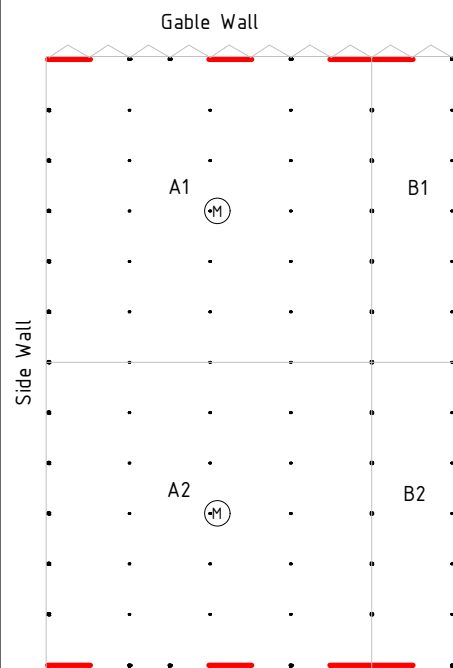
No right may be derived from this installation manual.

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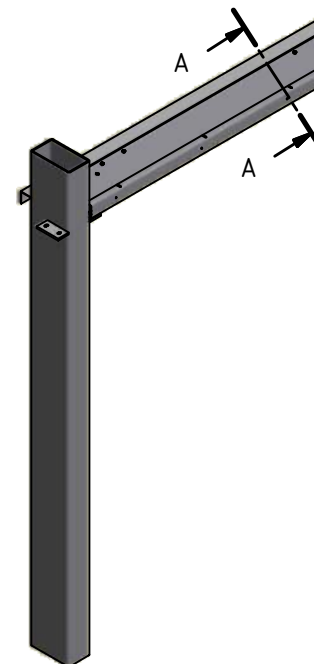
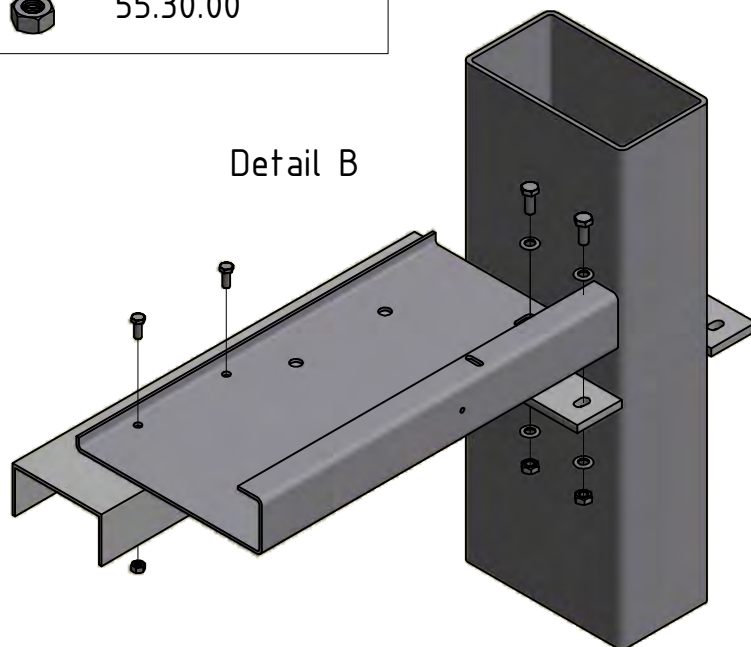
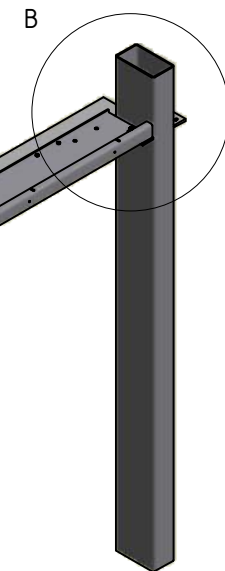
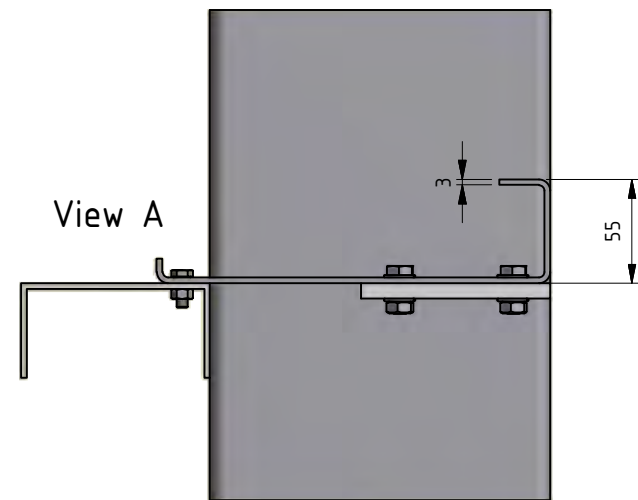


M8x20		55.40.20
M8		55.40.00
M8		53.55.17
M6x16		55.30.16
M6		55.30.00

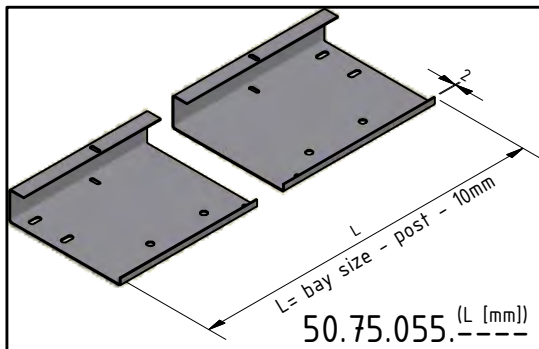



Screen plates 3mm

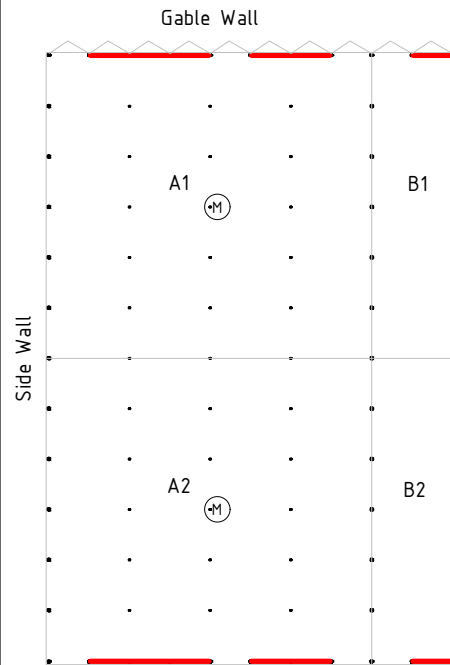
VAN DER VALK



02A

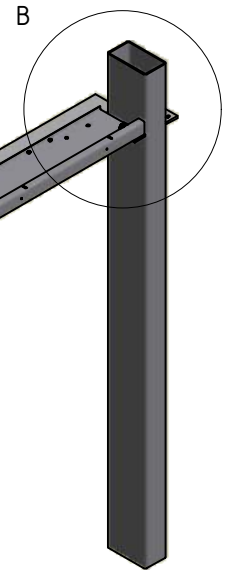
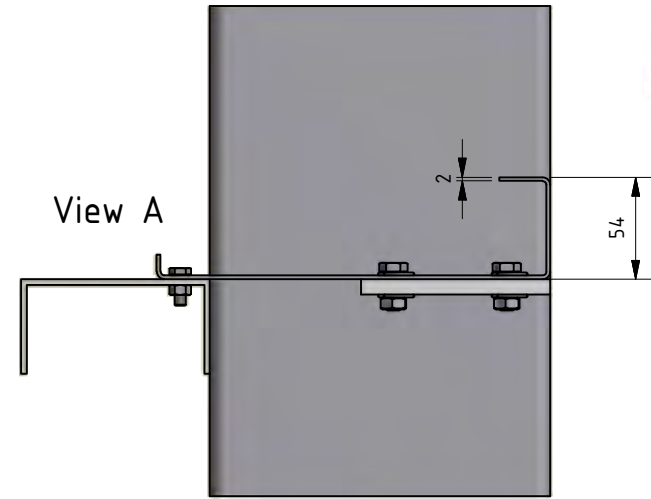


M8x20		55.40.20
M8		53.55.17
M8		55.40.00
M6x16		55.30.16
M6		55.30.00

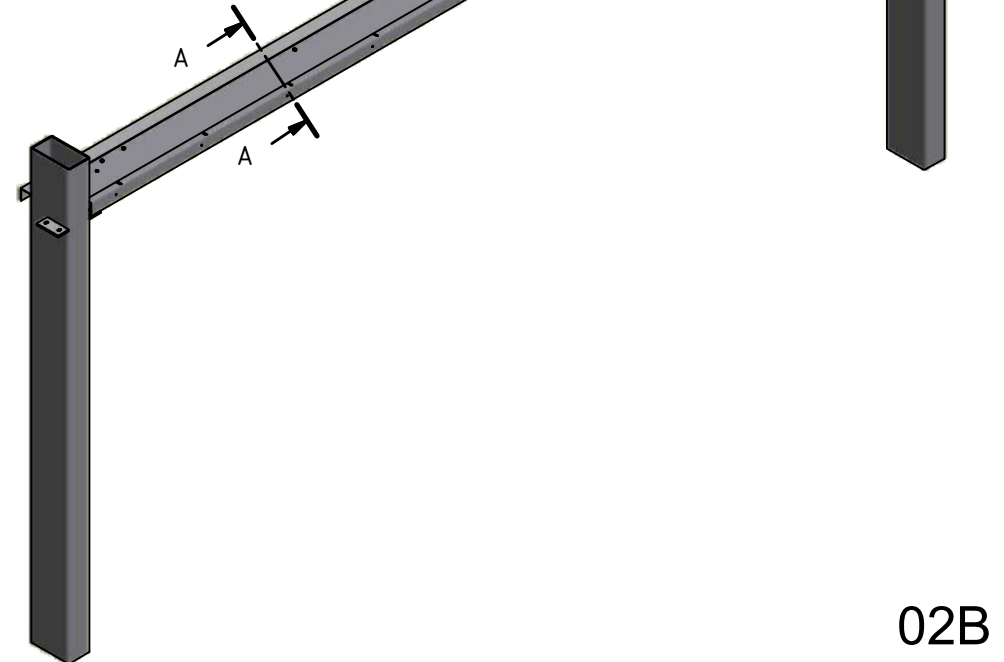
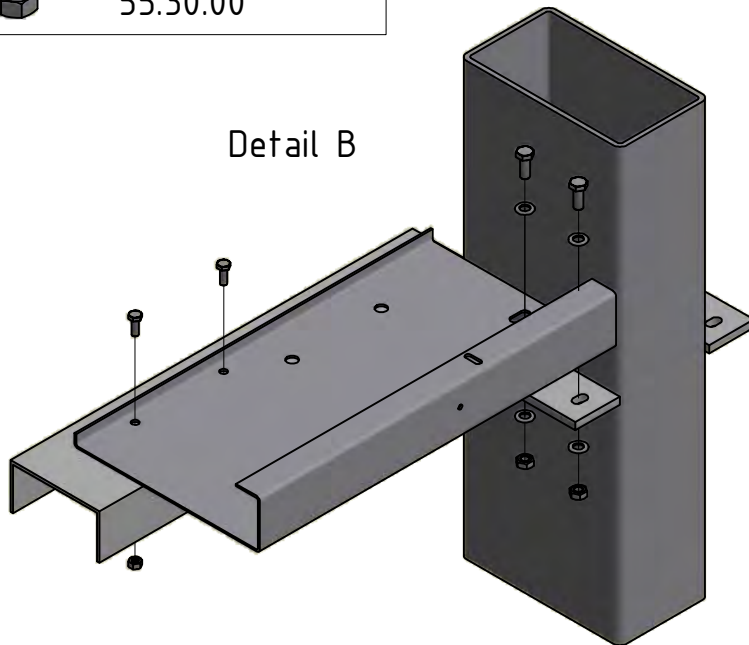


Screen plates 2mm

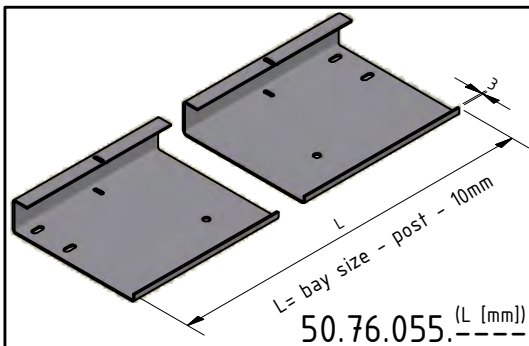
VAN DER VALK





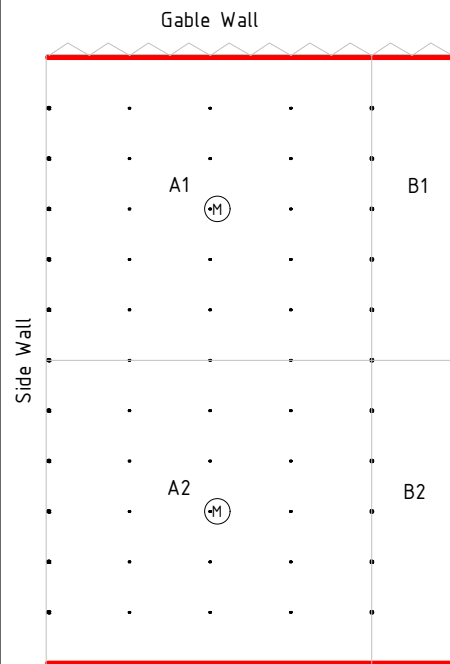
Detail B



02B



M8x20		55.40.20
M8		55.40.05
M8		53.55.17
M6x16		55.30.16
M6		55.30.00

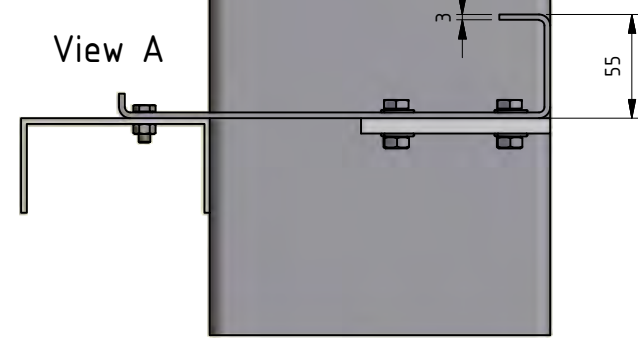


Screen plates 3mm
with 3 pull wires

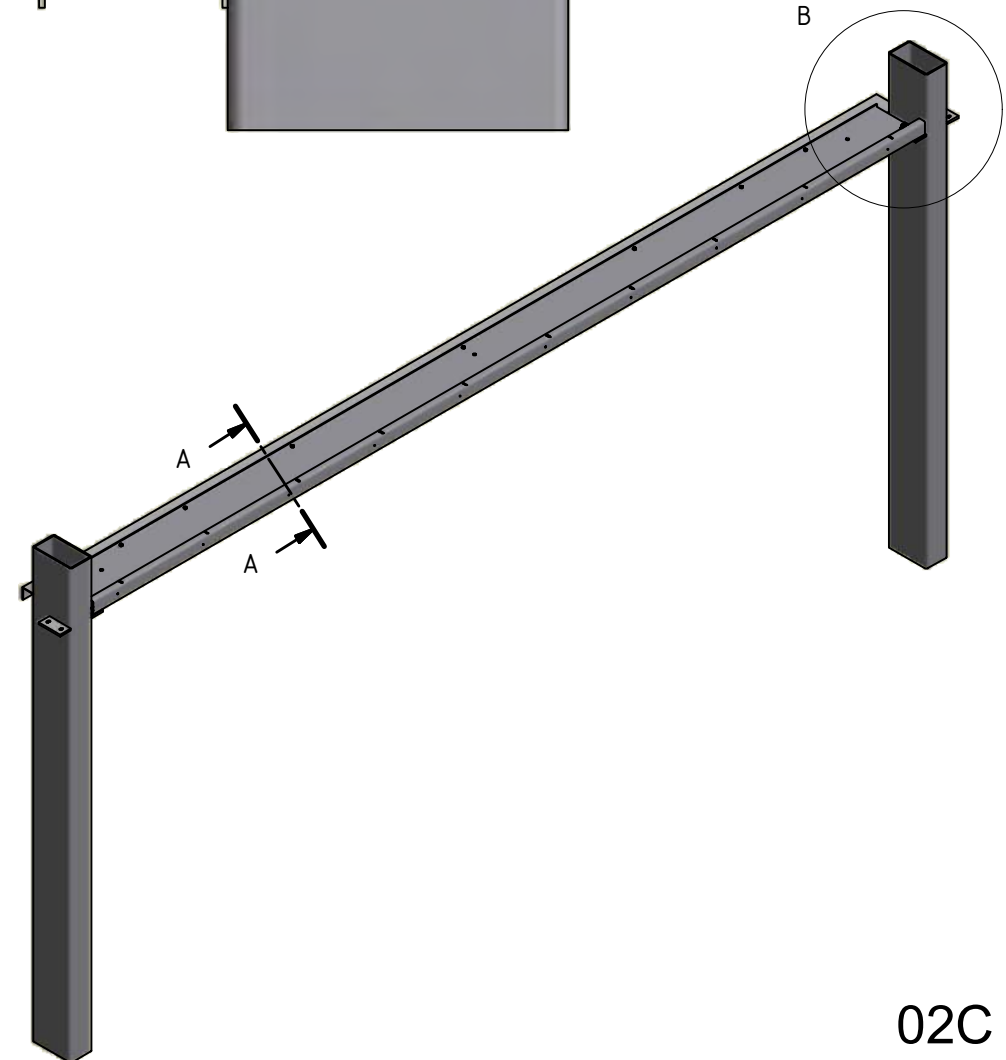
VAN DER VALK



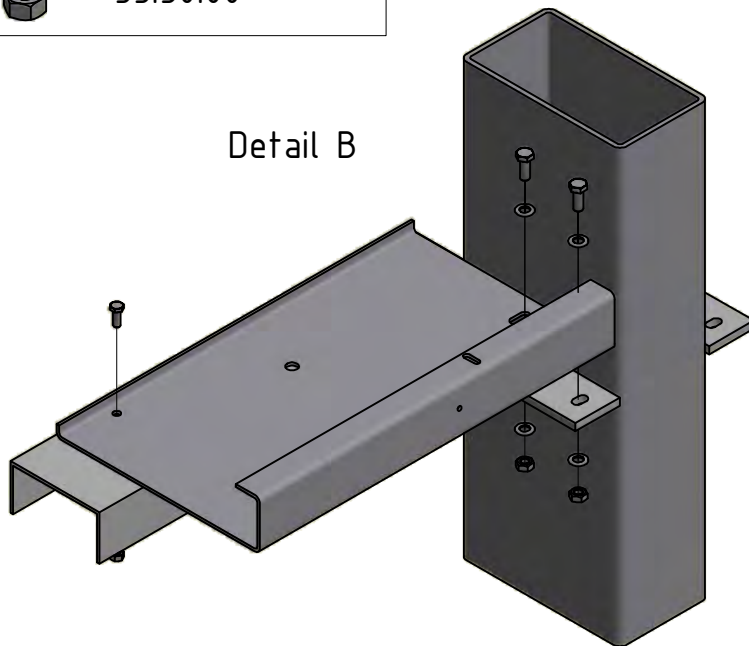
View A



B

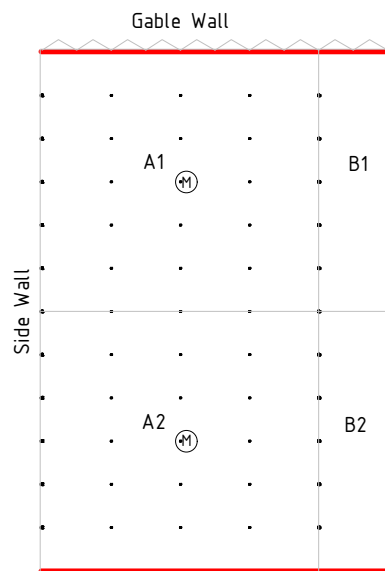


Detail B



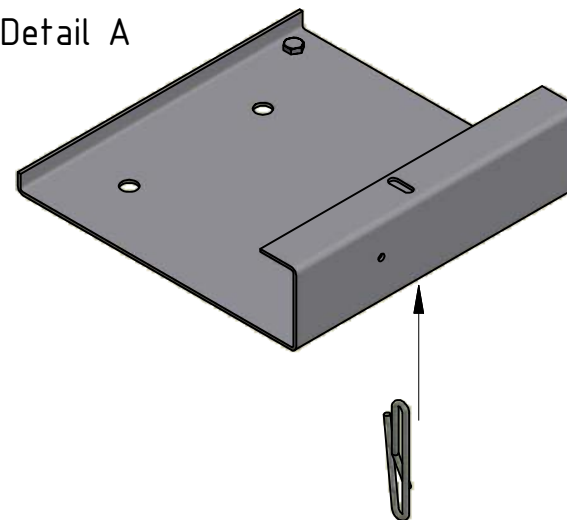


45.81.85



Atlas wire clip

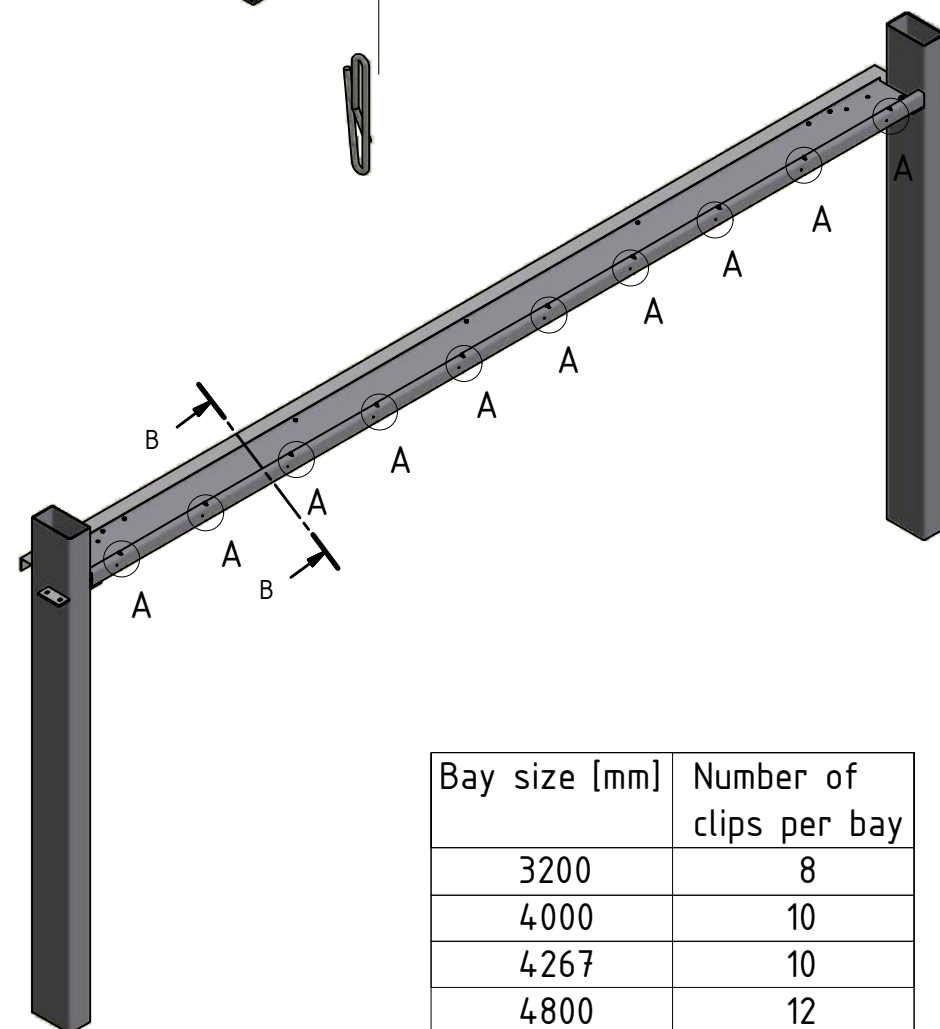
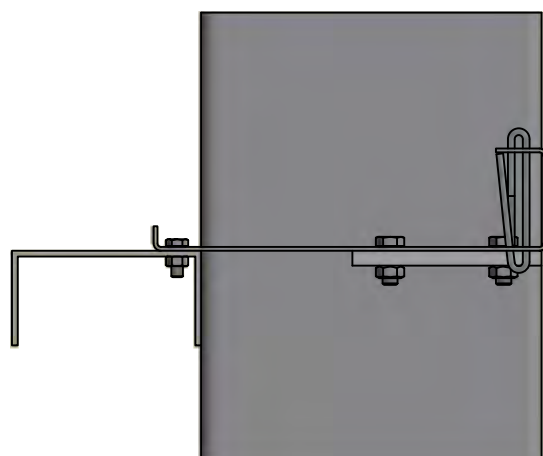
Detail A



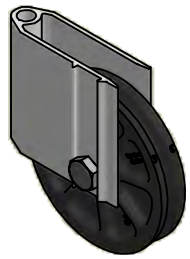
VAN DER VALK



View B



Bay size [mm]	Number of clips per bay
3200	8
4000	10
4267	10
4800	12



44.81.30

M10x100

55.51.00

M10

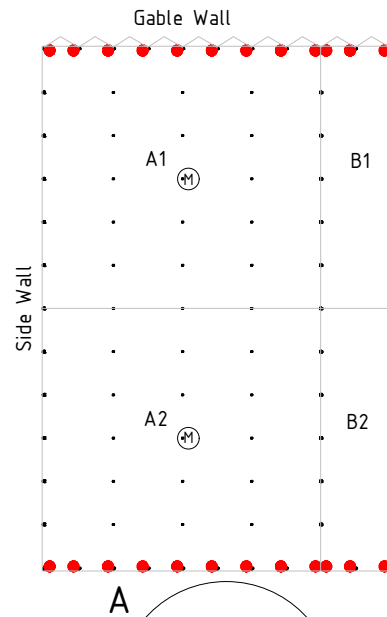


53.55.42

M10

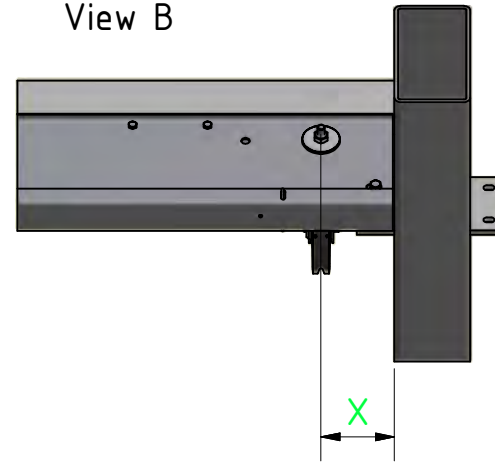


55.50.00



Reversing wheel

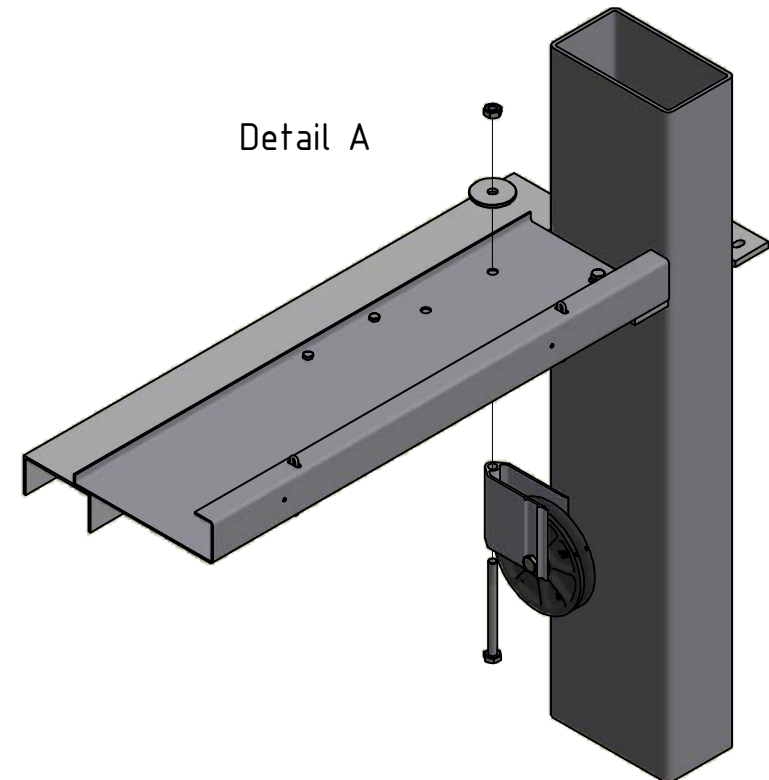
View B

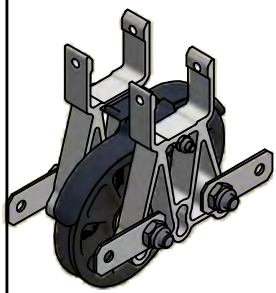


VAN DER VALK



Detail A





Trellis height
Trellis width
44.740.---

M6x..

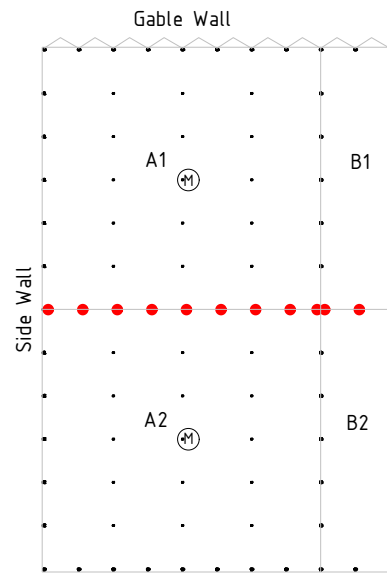


(L=trellis width + 15 mm)
55.30.---

M6



55.30.00

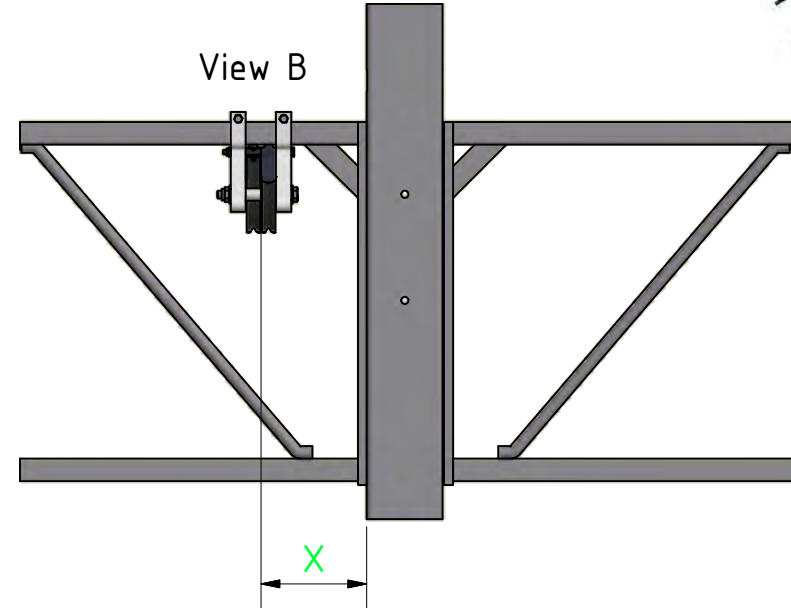


Reversing wheel

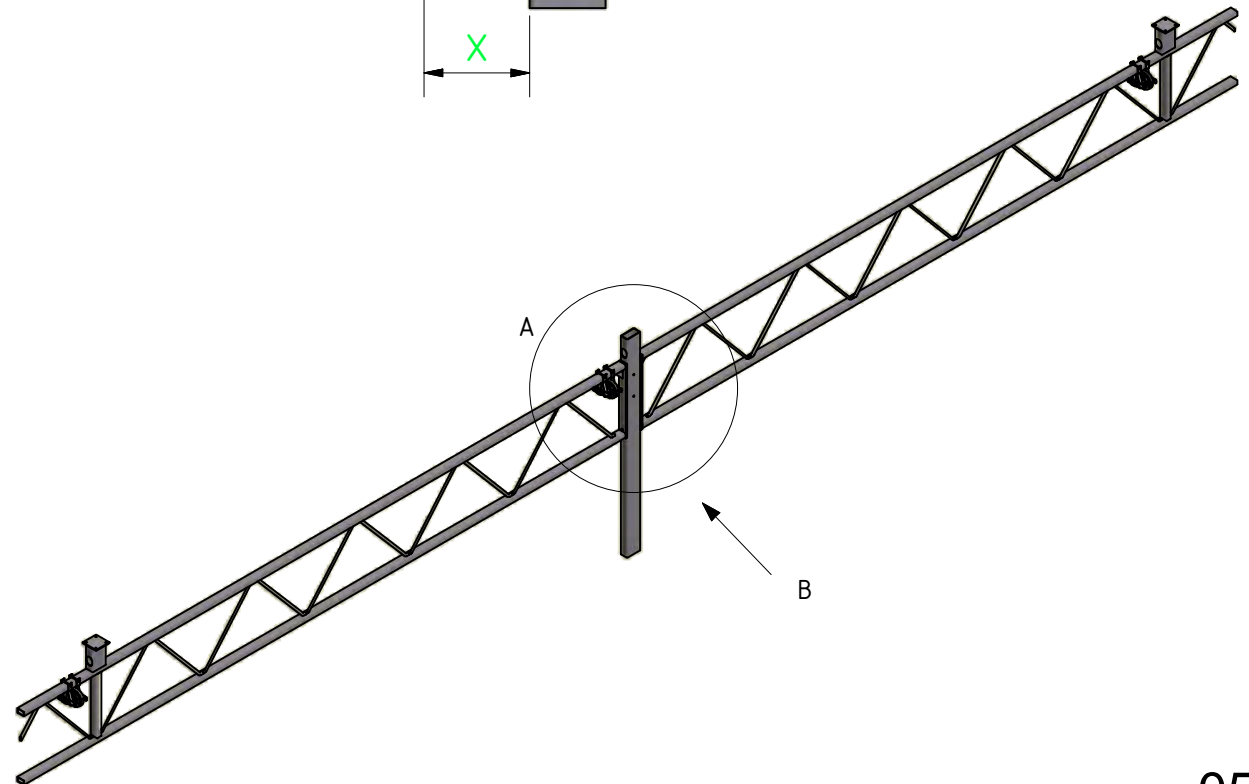
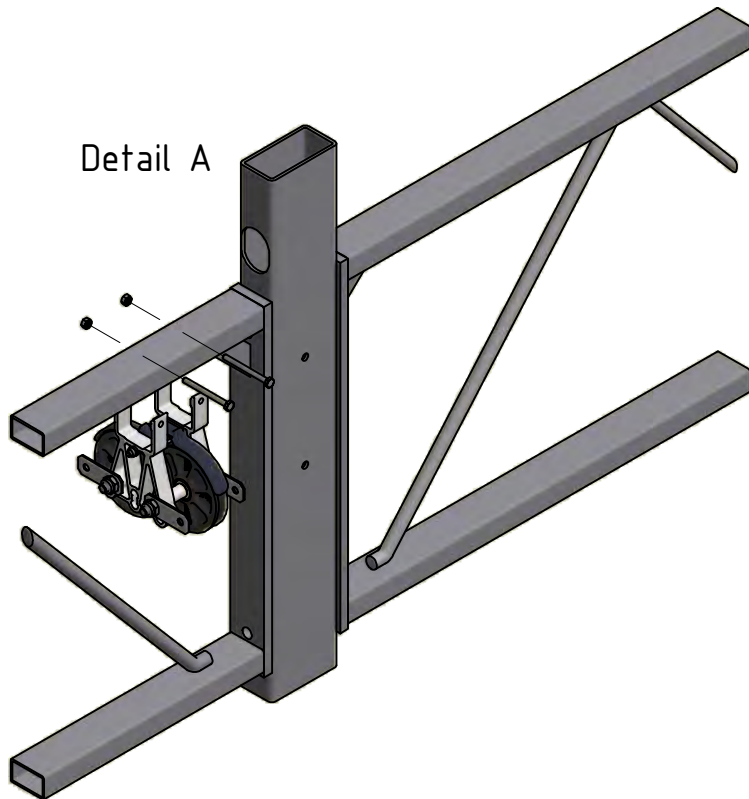
VAN DER VALK



View B

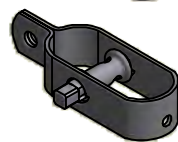


Detail A





48.80.40



48.80.12



48.80.30



48.80.37



48.10.17

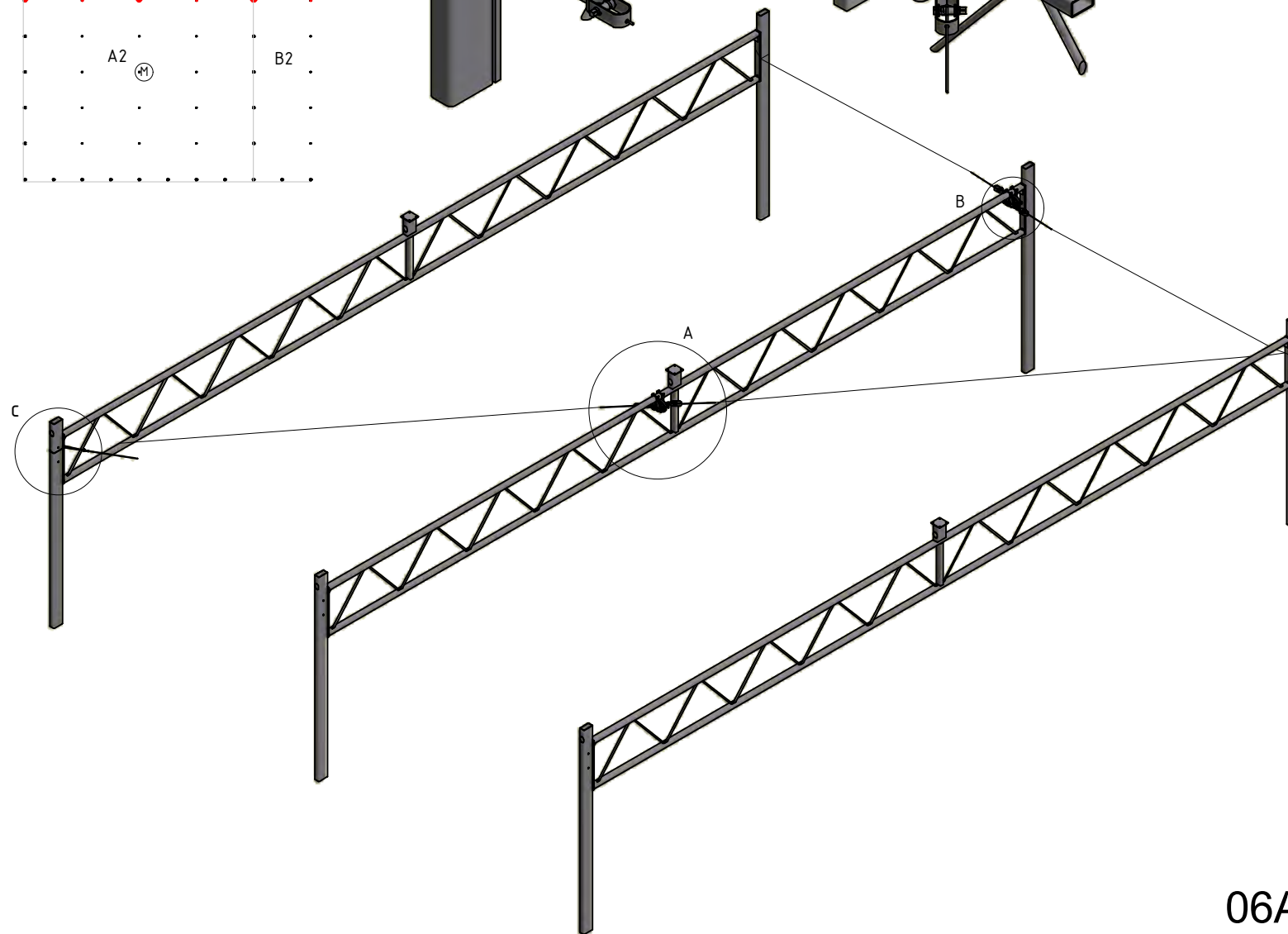
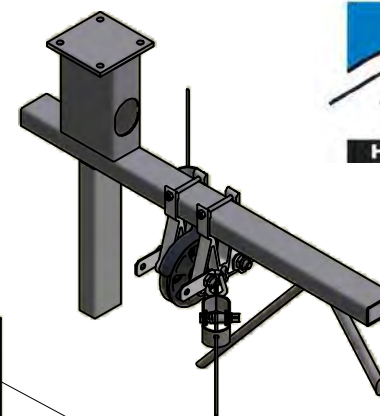
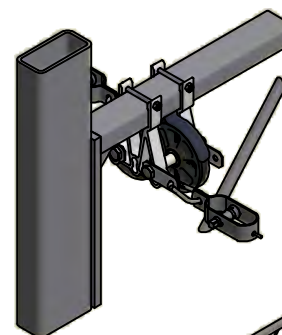
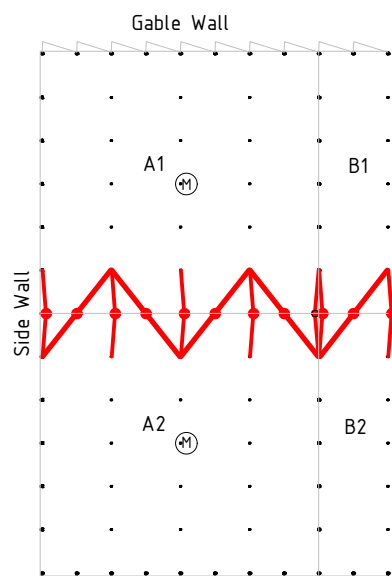
Bracing reversing wheels

VAN DER VALK

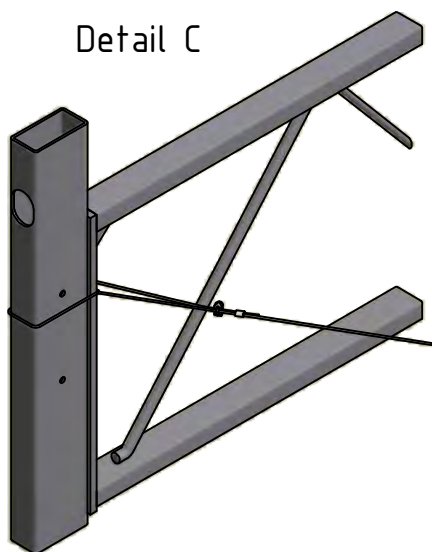


Detail A

Detail B

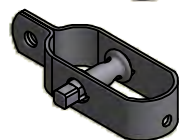


Detail C





48.80.40



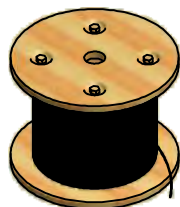
48.80.12



48.80.30



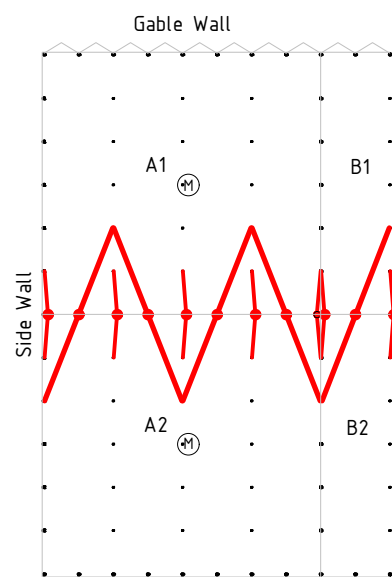
48.80.37



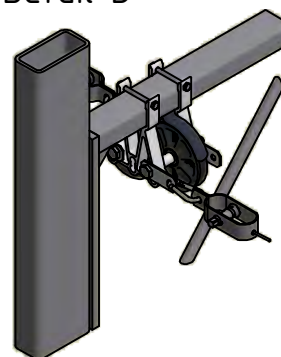
48.10.17

Bracing reversing wheels

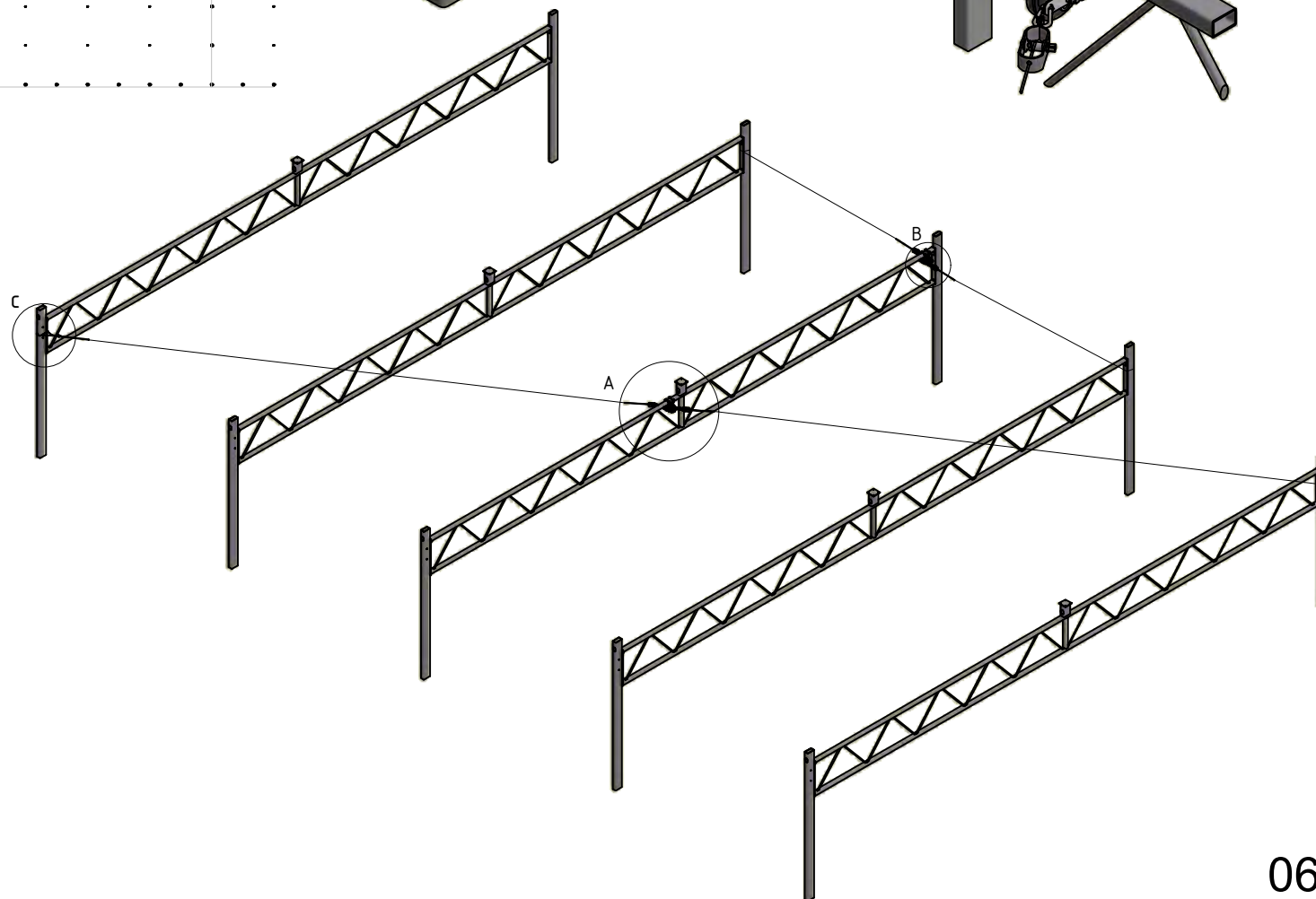
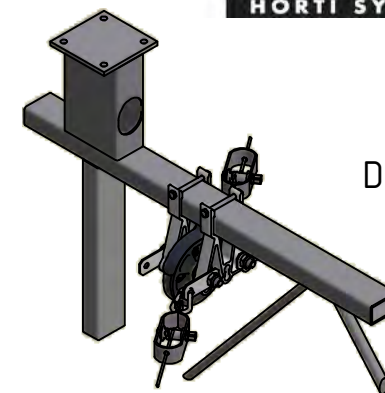
VAN DER VALK



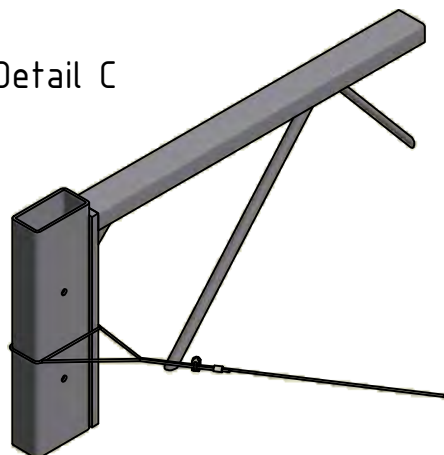
Detail B



Detail A



Detail C





48.80.40



48.80.12



48.80.30



48.80.37



48.10.17

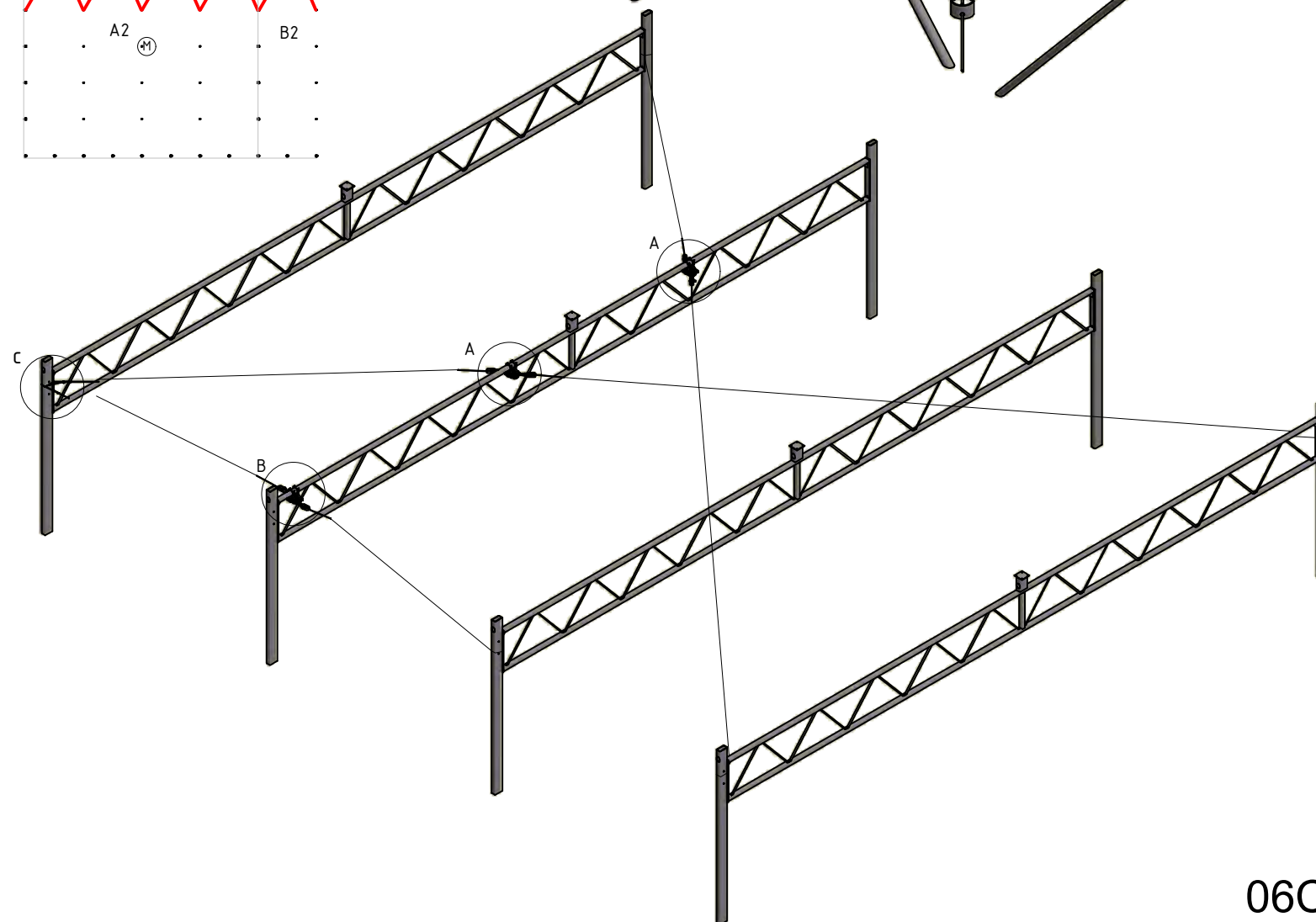
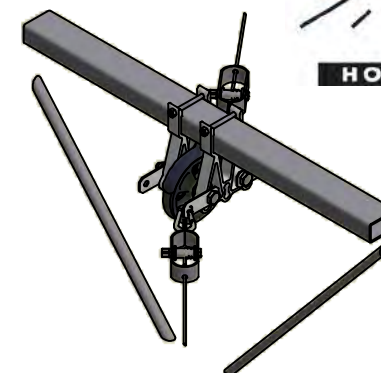
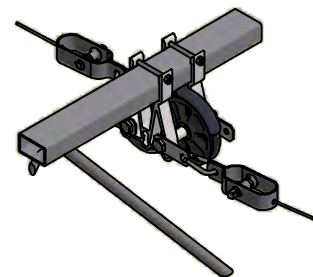
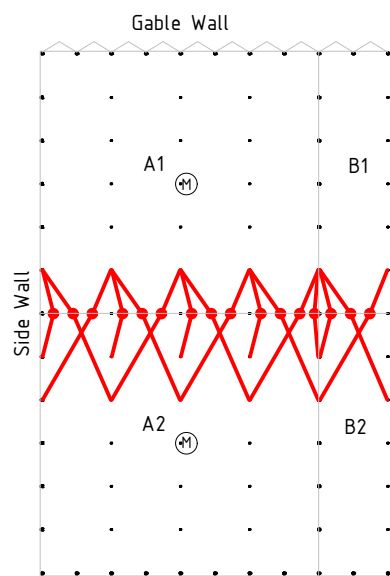
Bracing reversing wheels

VAN DER VALK

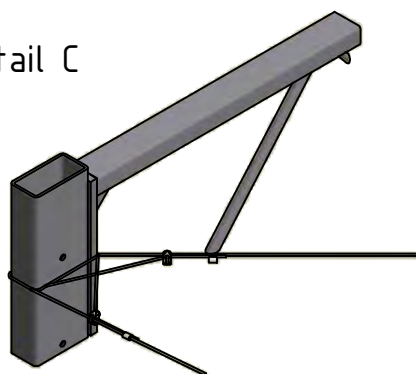


Detail A

Detail B



Detail C



06C

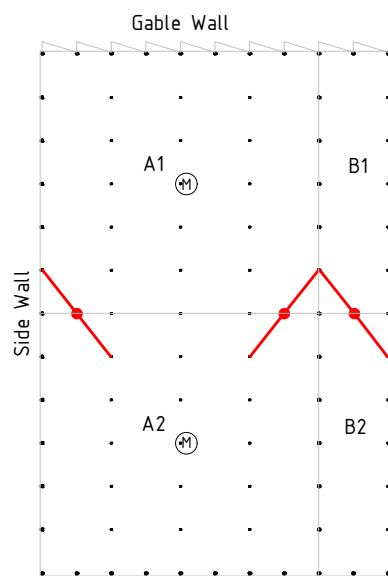


44.82.10.----- (L [mm])

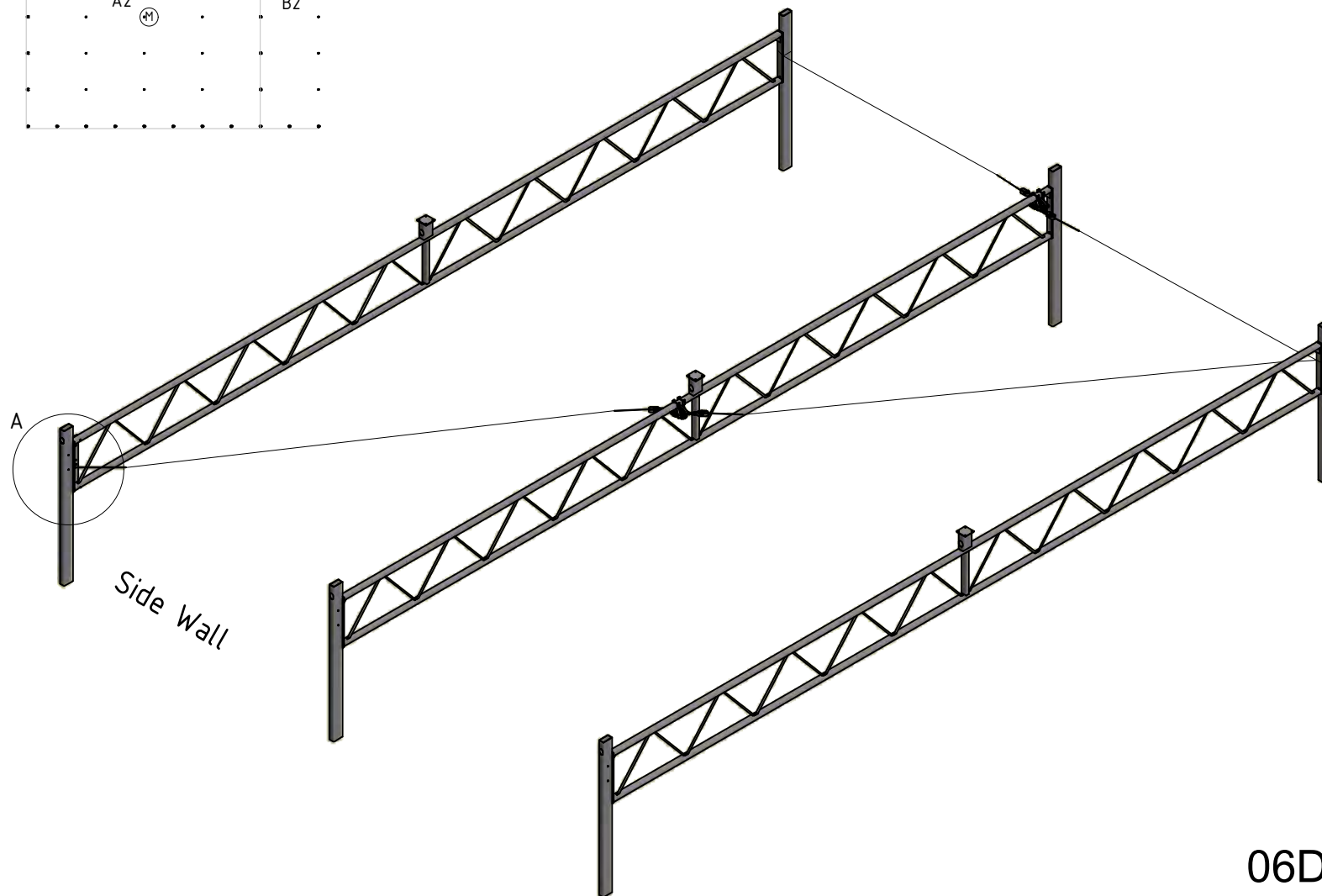
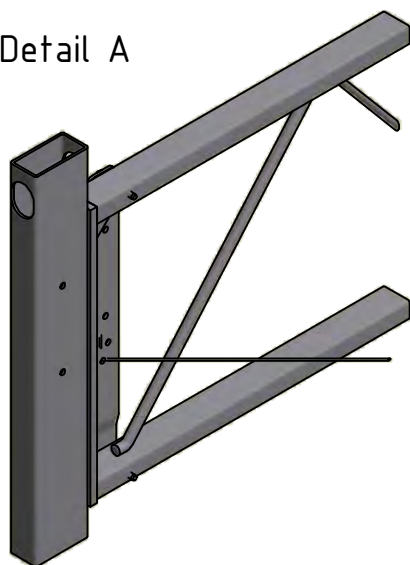
48.10.17

Bracing reversing wheels - Side Wall

VAN DER VALK

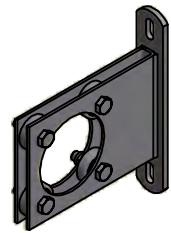


Detail A



Bearing plate 2" at post

VAN DER VALK



44.82.15

M8x--



(kolom width + 20 mm)
55.40.--

M8

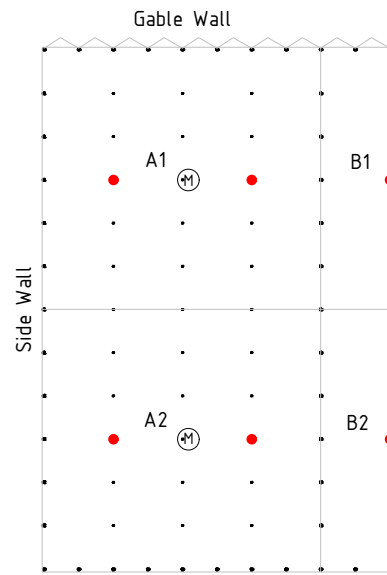


55.40.00

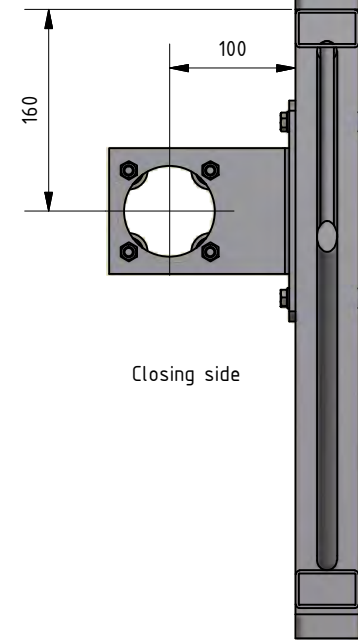
M8



53.55.17



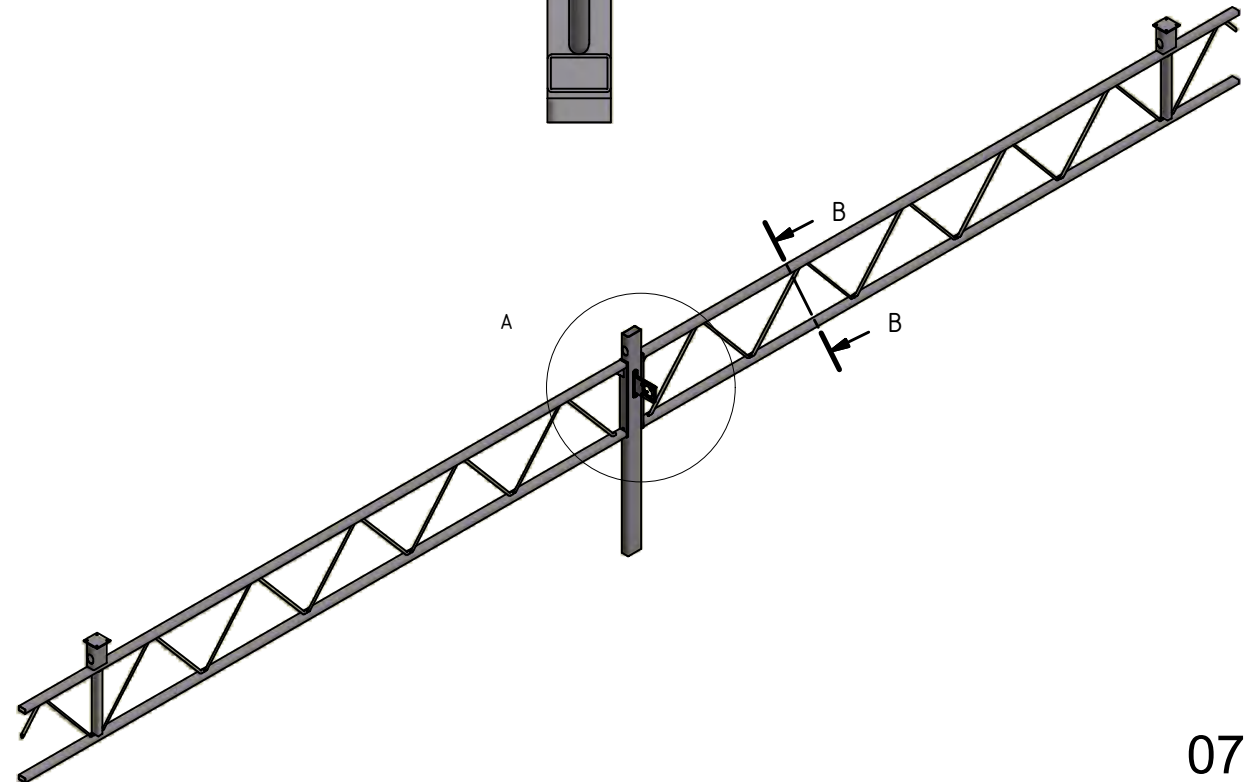
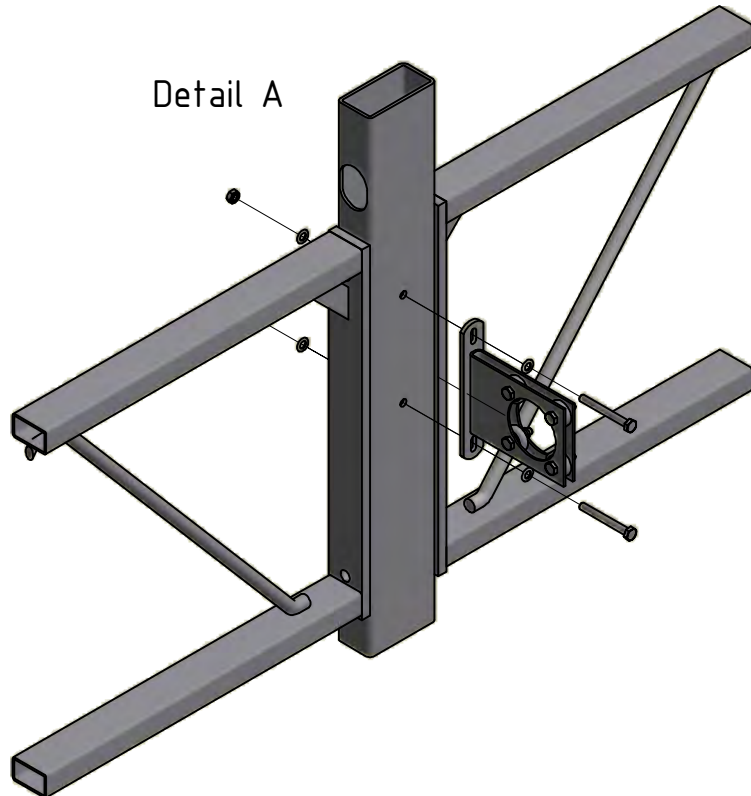
View B

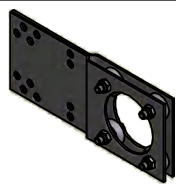


Closing side

Cloth package side

Detail A





44.82.25



44.82.31



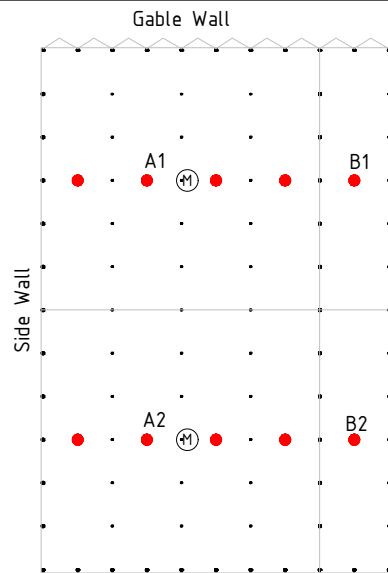
(thickness + 20 mm)
55.40.--

M8x..

M8

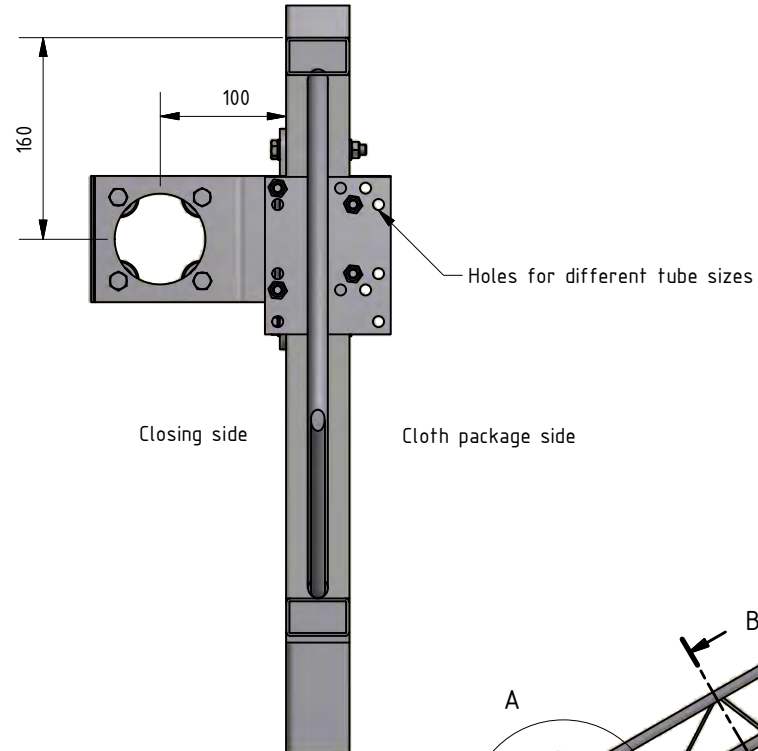


55.40.00



Bearing plate 2" at floating gutter

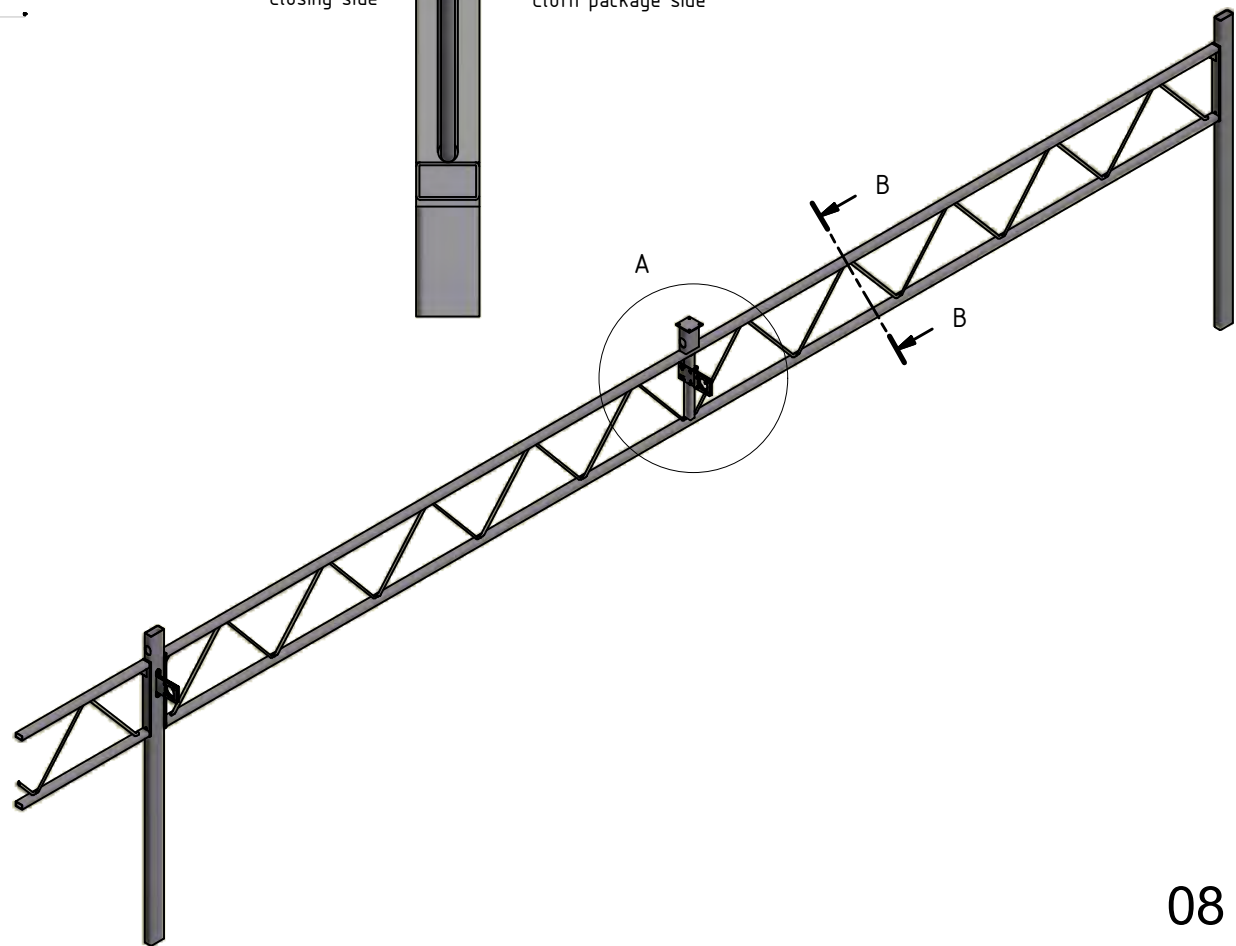
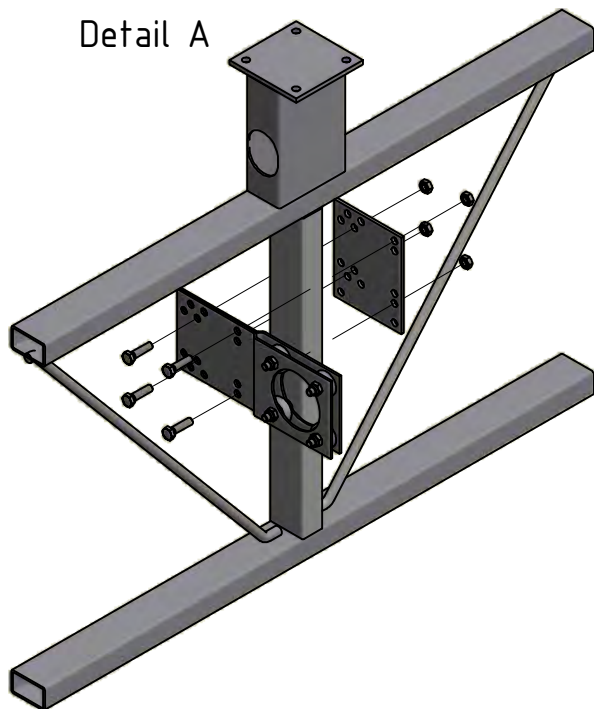
View B



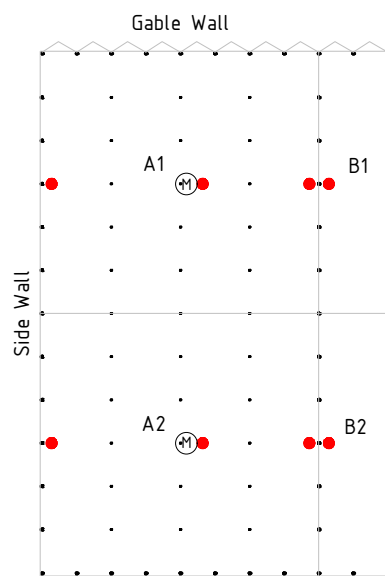
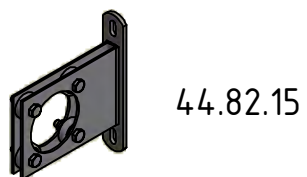
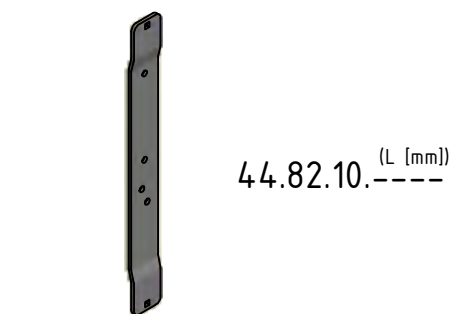
VAN DER VALK



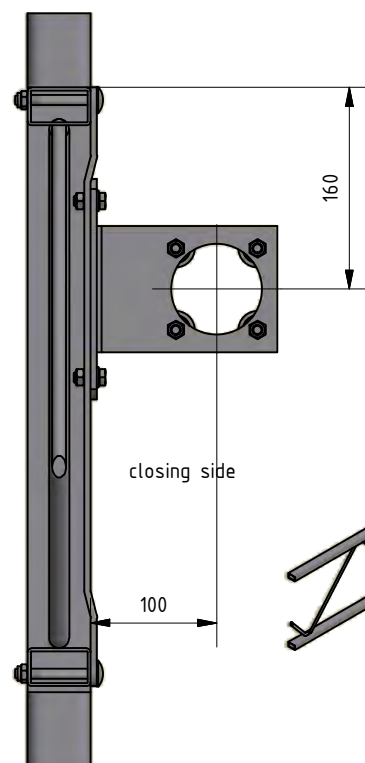
Detail A



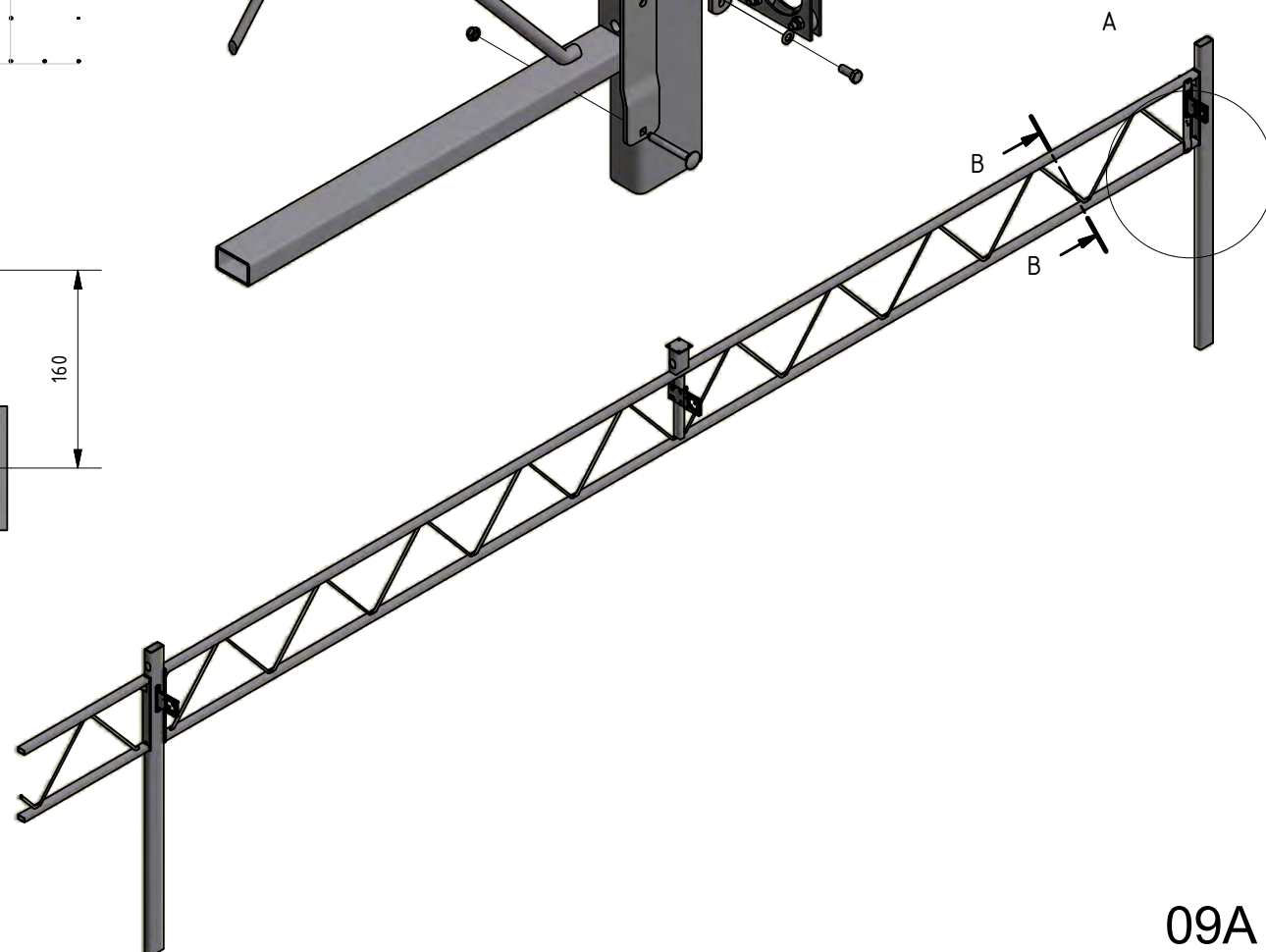
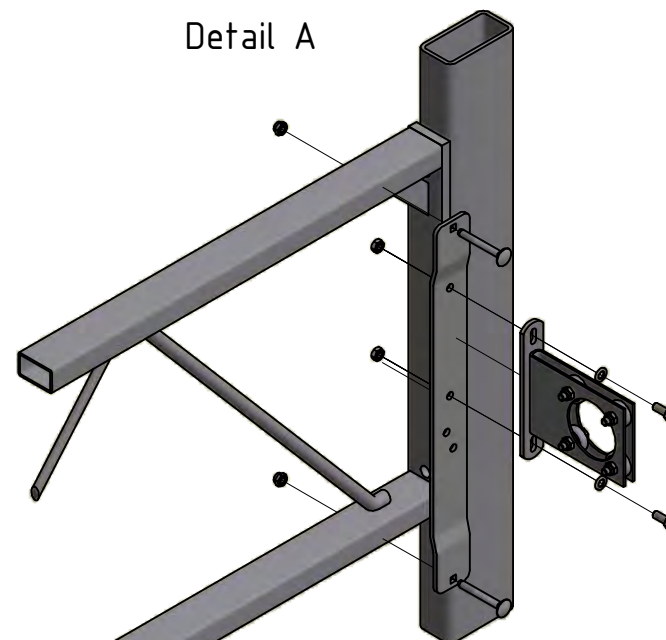
Bearing plate 2" at cloth hanging down and motor



View B

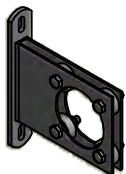


Detail A





44.82.10. (L [mm])



44.82.15

M8x20



55.40.20

M8



53.55.17

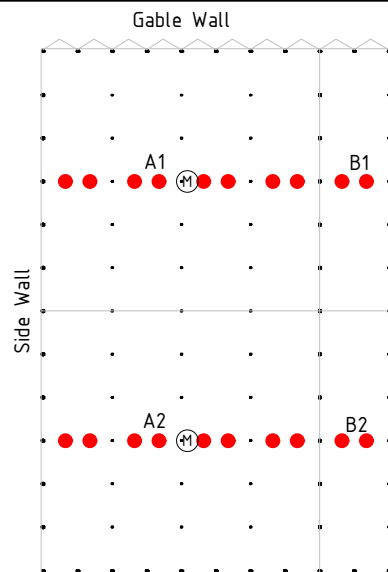


(trellis with +15 mm)
53.41.--

M8

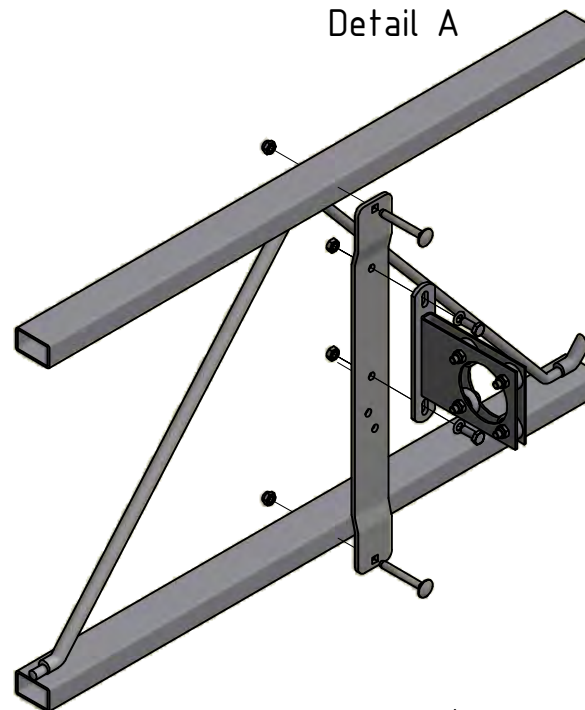


55.40.05

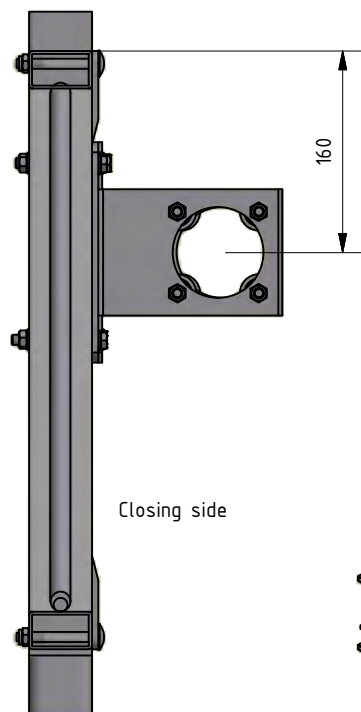


Bearing plate 2" at floating gutter

Detail A

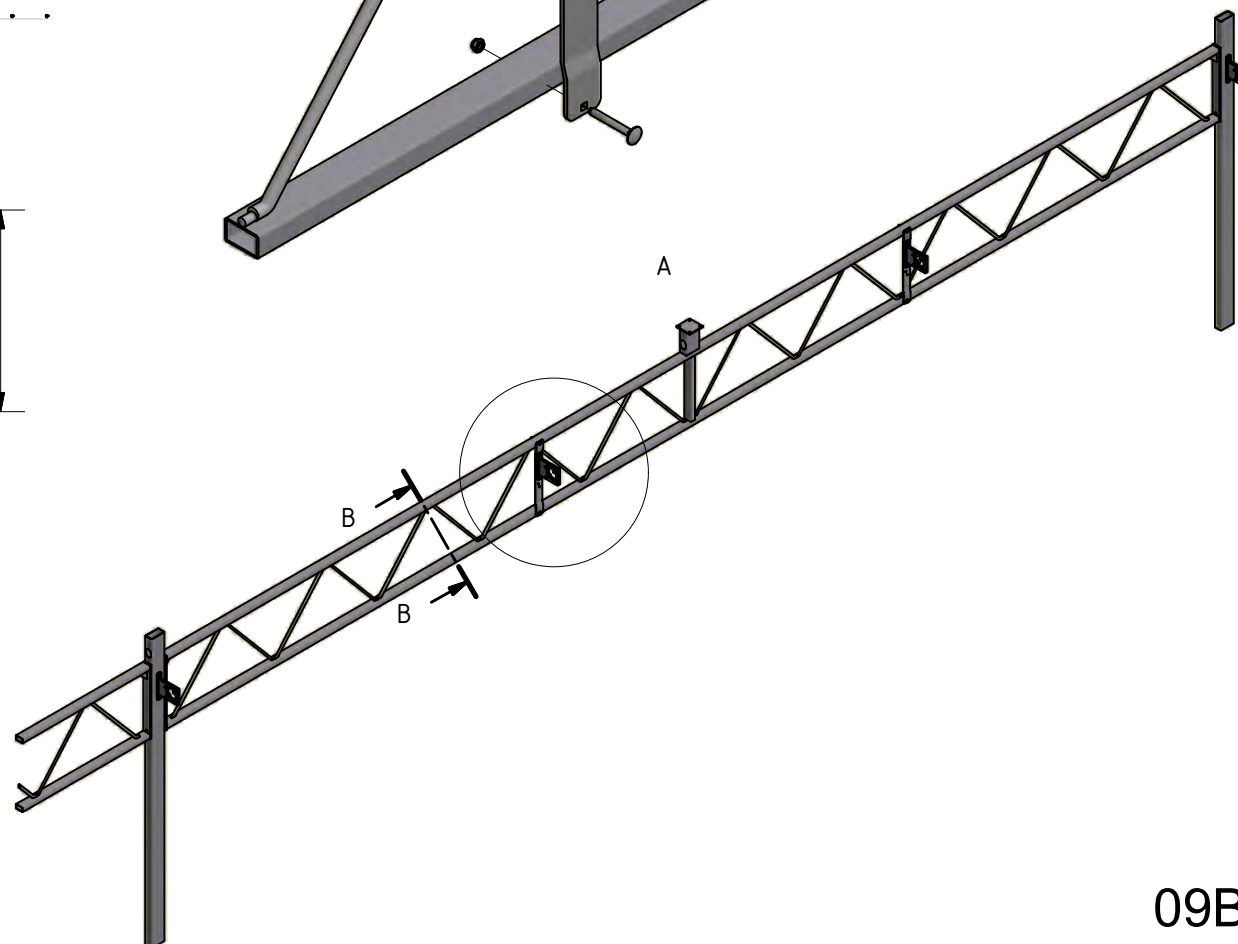


View B



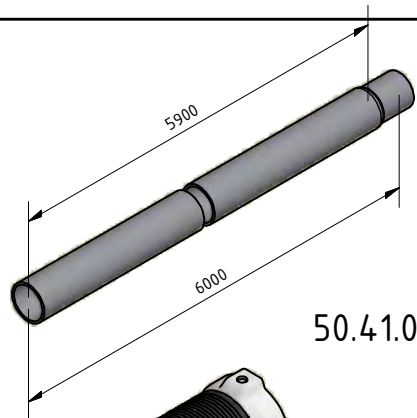
Cloth package side

Closing side

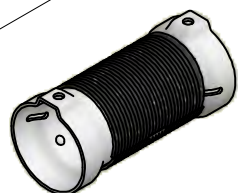


VAN DER VALK





50.41.06000



44.80.34-W

M8



53.25.20

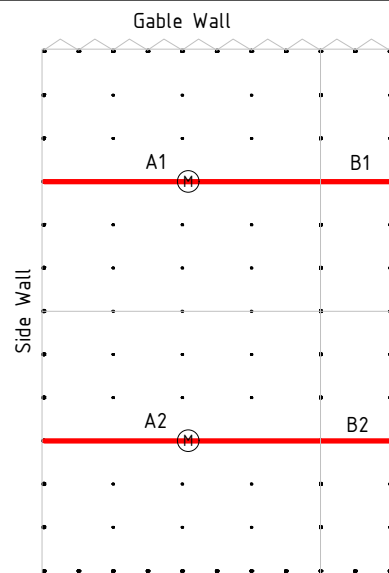
M8x16



55.40.16



44.16.60

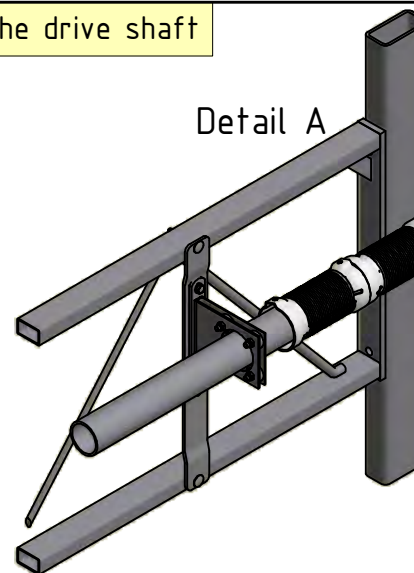


Mounting of the drive shaft

VAN DER VALK



Detail A

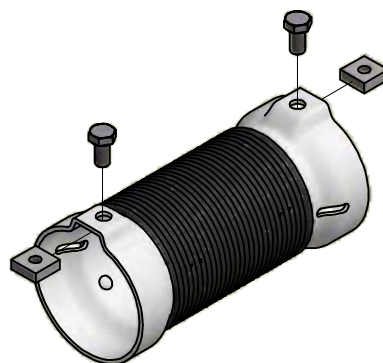
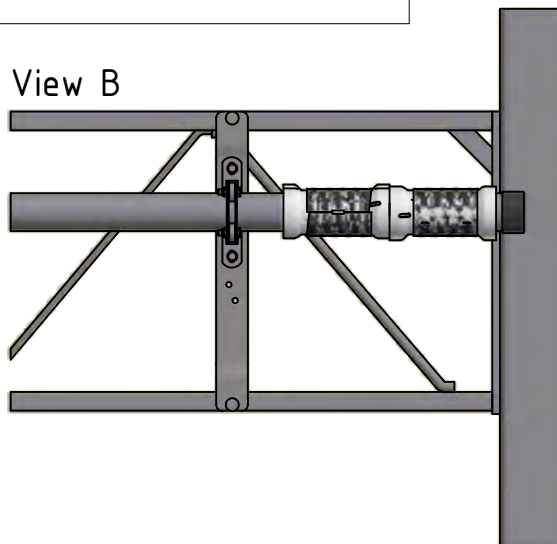


Only use at the end of the tube.

Attention mount the wire tensioner before installing the tube.

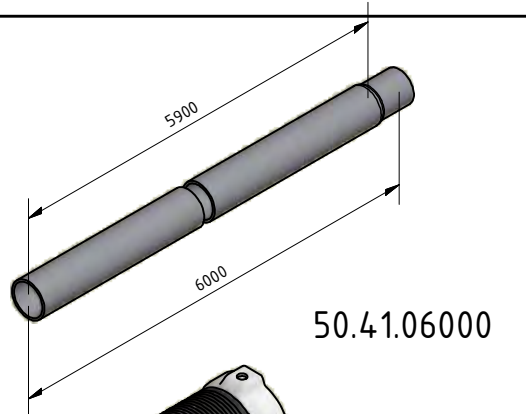
A

View B

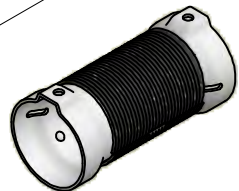


swaged end towards motor

Welding of the drive shaft



50.41.06000



44.80.34-W

M8

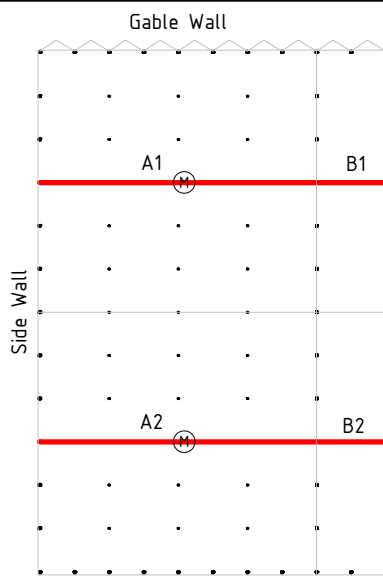


53.25.20

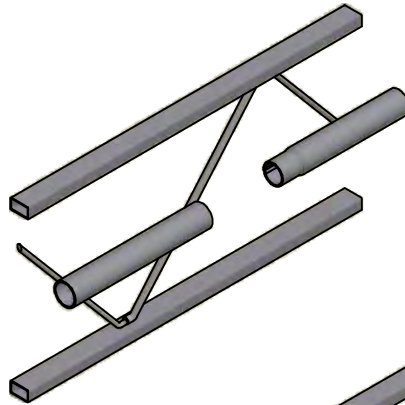
M8x16



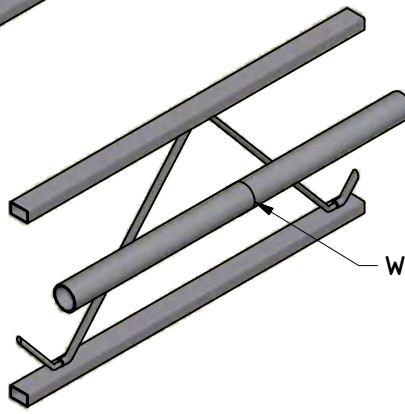
55.40.16



Detail A

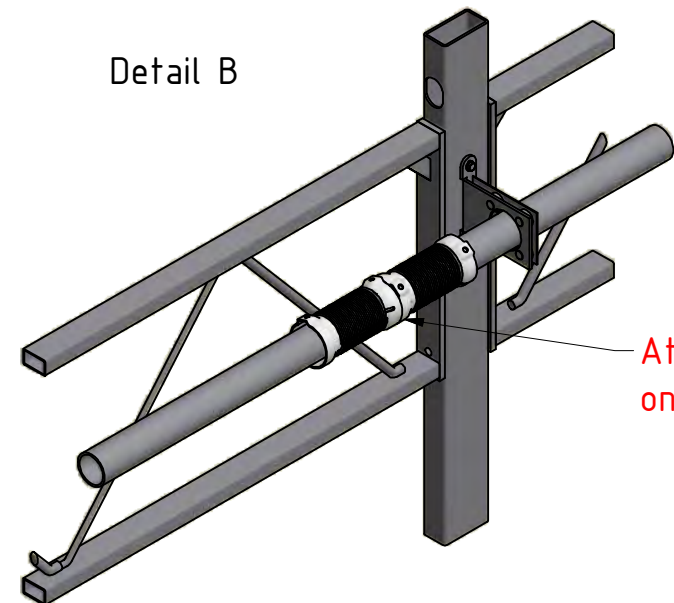


Detail A

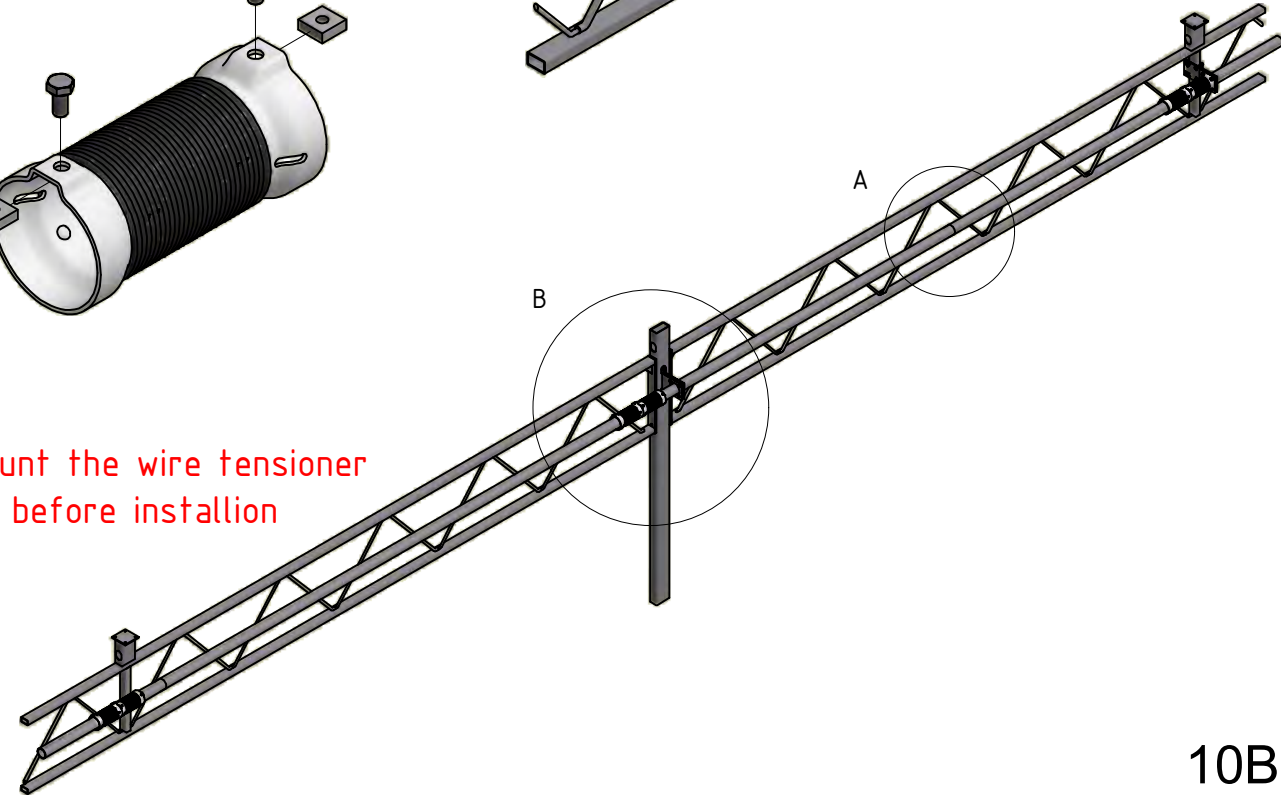
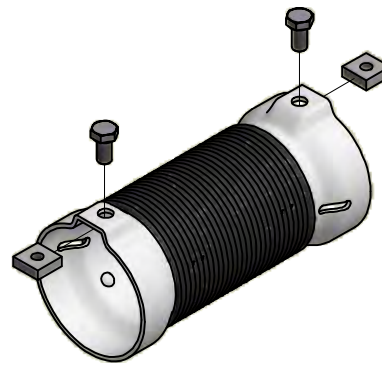


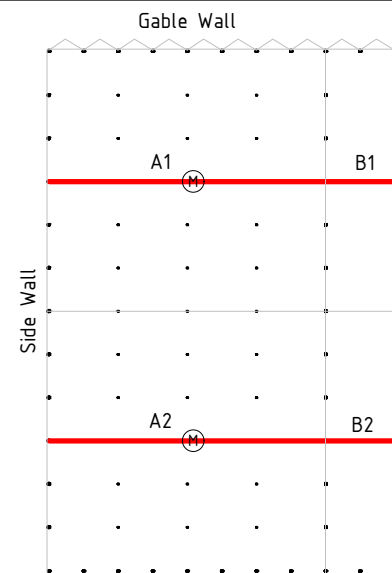
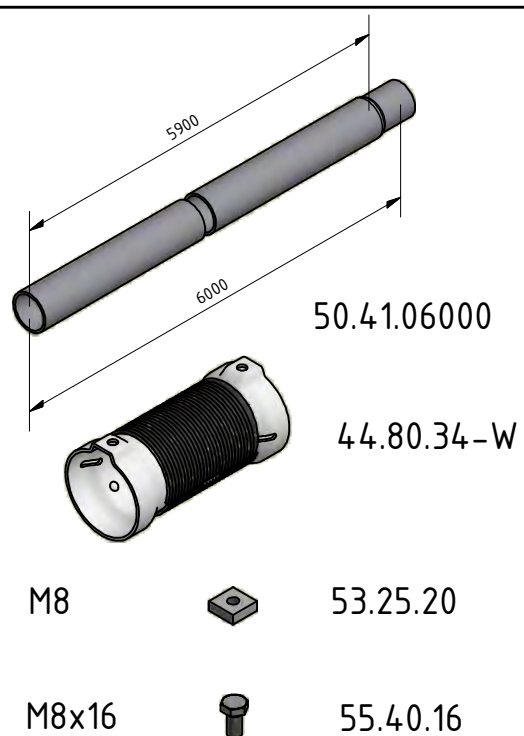
weld tubes together

Detail B



Attention mount the wire tensioner on the shaft before installation

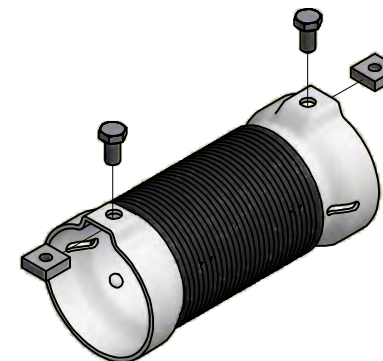




Detail A

Welding of the drive shaft

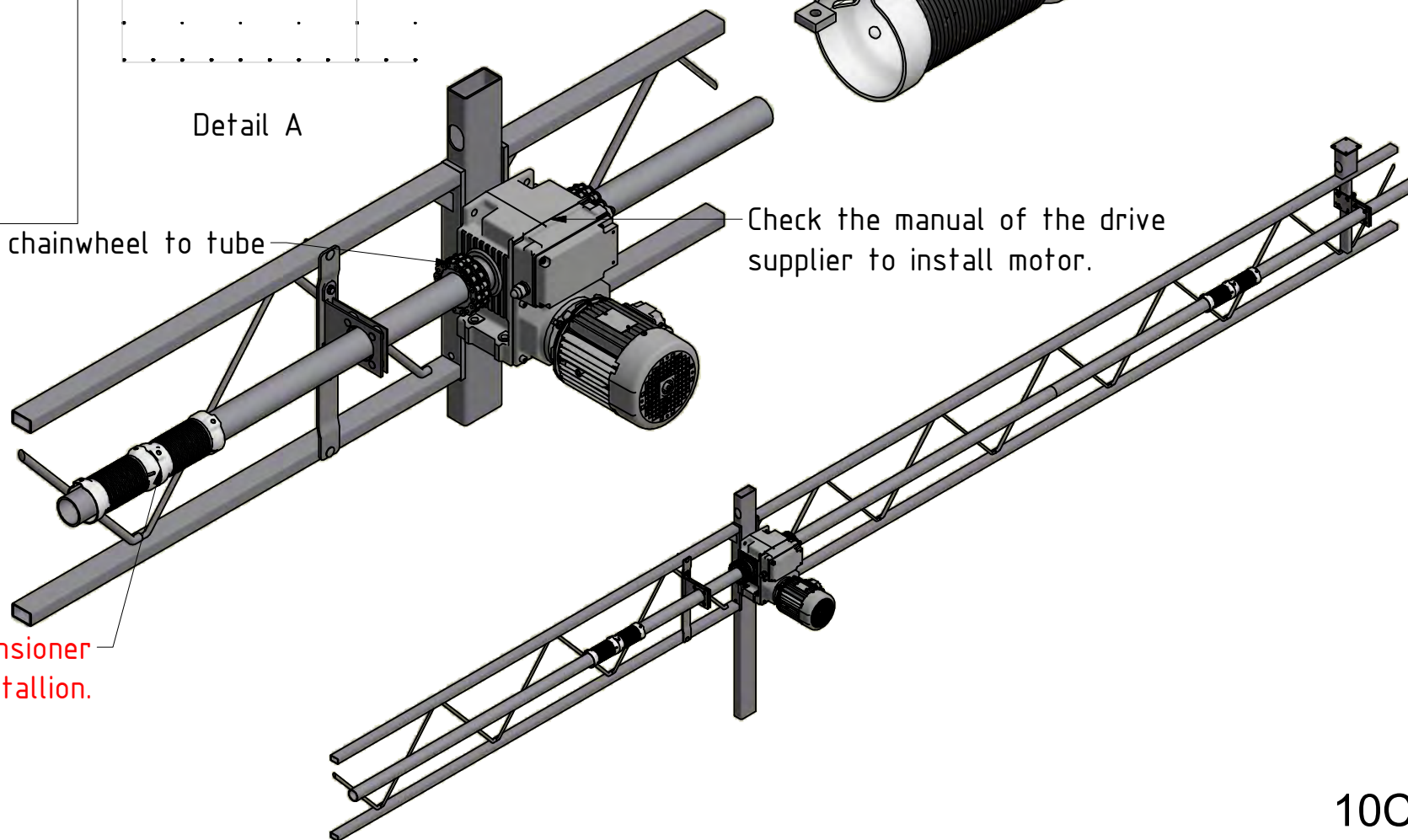
VAN DER VALK

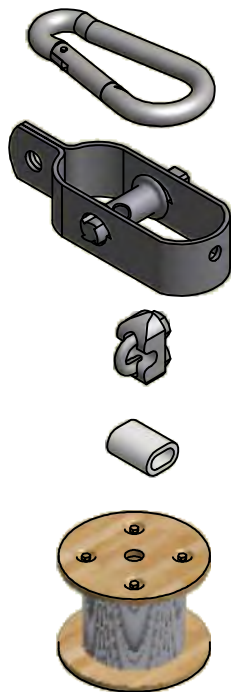


Weld chainwheel to tube

Check the manual of the drive supplier to install motor.

Attention slide the wire tensioner on the shaft before installion.





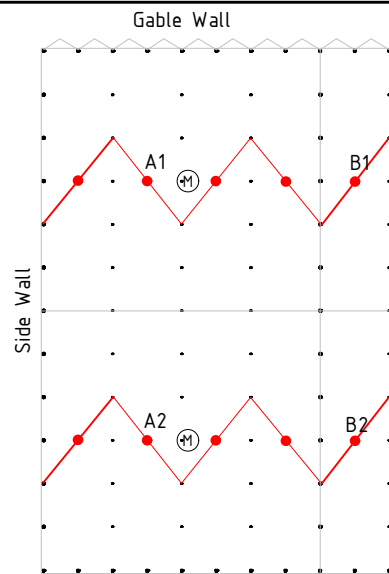
48.80.40

48.80.12

48.80.30

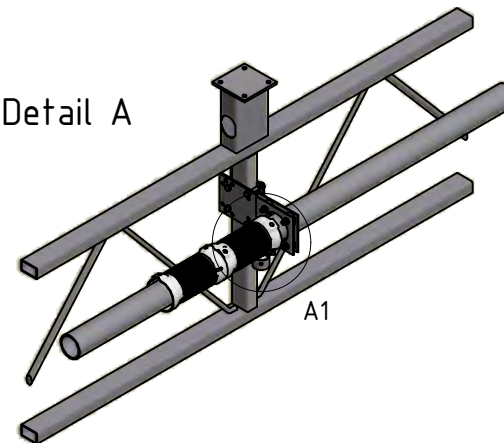
48.80.37

48.10.17



Bracing of bearing plate 2" at floating gutter if the peak size is bigger than the section size

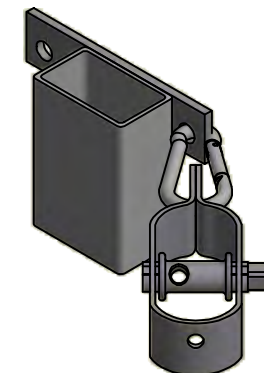
Detail A



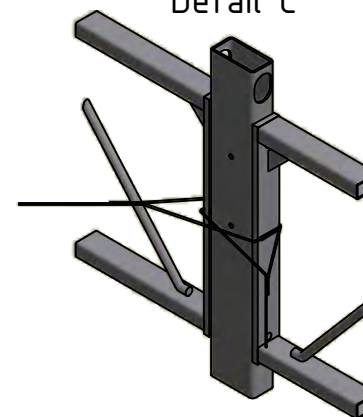
VAN DER VALK



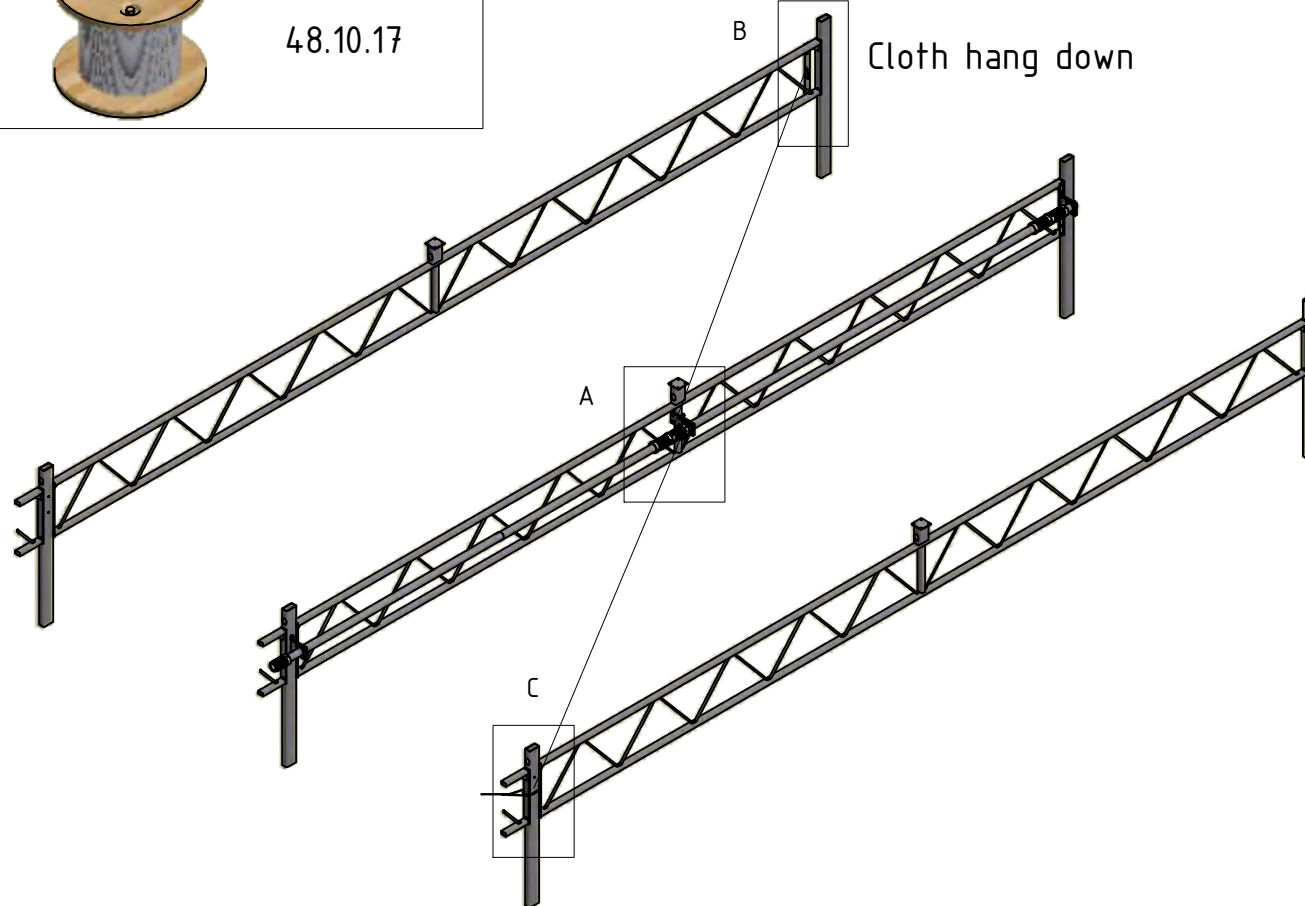
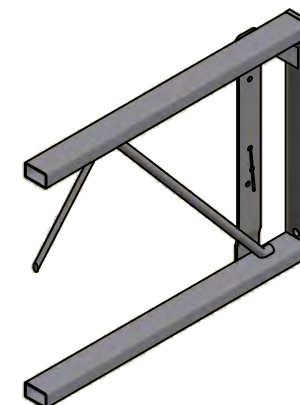
Detail A1

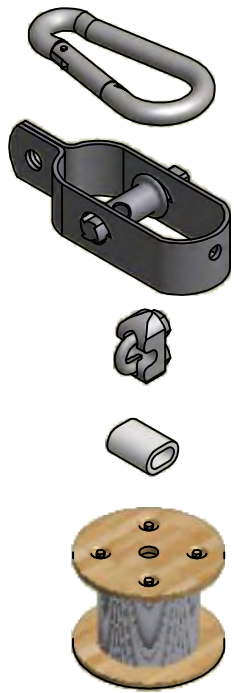


Detail C



Detail B
Cloth hang down





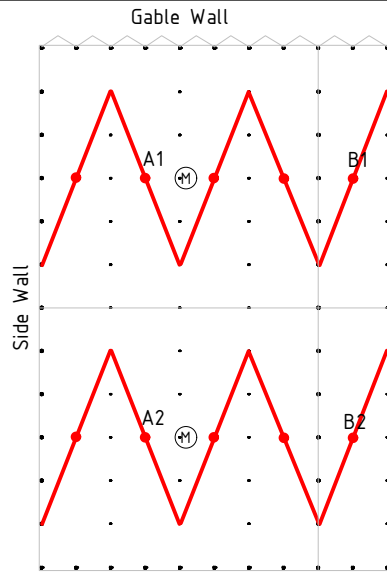
48.80.40

48.80.12

48.80.30

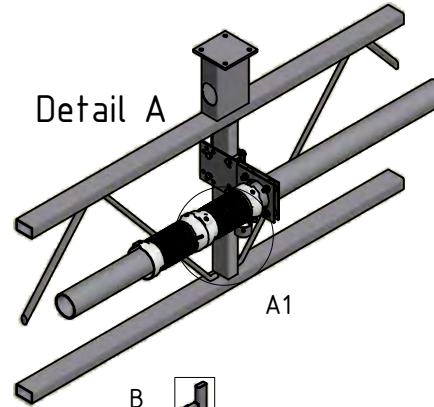
48.80.37

48.10.17

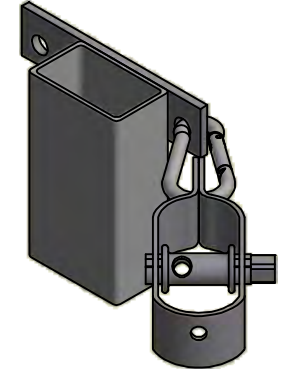


Bracing of bearing plate 2" at floating gutter if the peak size is bigger than the section size

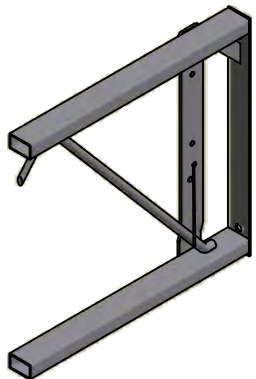
Detail A



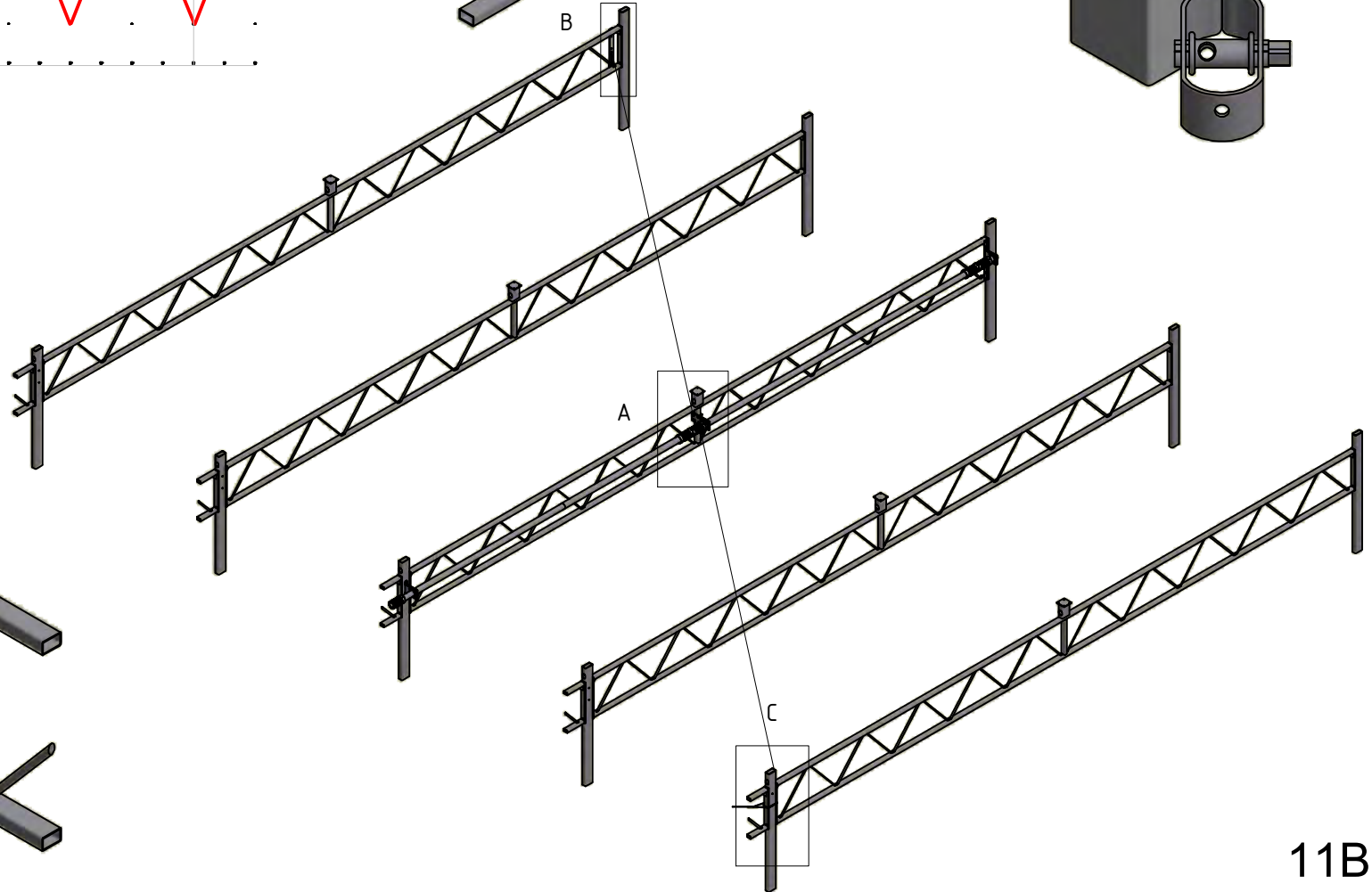
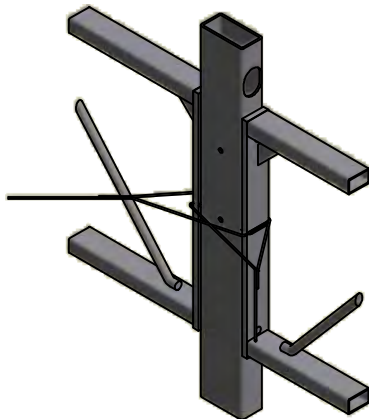
Detail A1

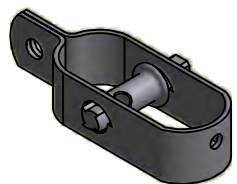


Detail B
Cloth hang down



Detail C





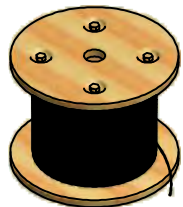
48.80.12



48.80.30



48.80.37



48.10.17

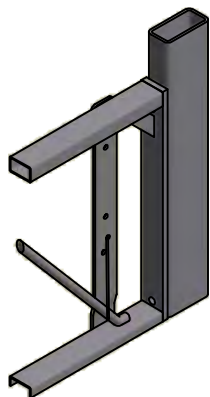


55.40.20

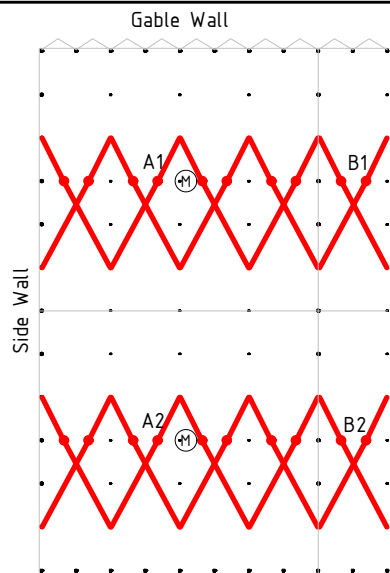
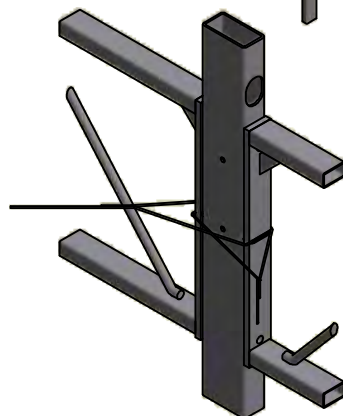


55.40.00

Detail B
Cloth hang down

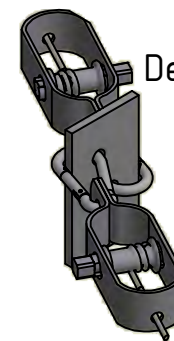
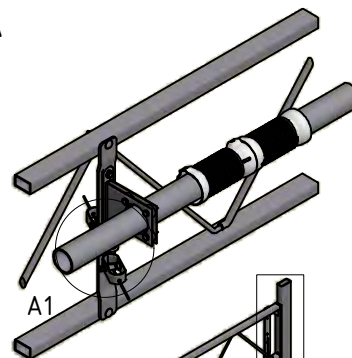


Detail C

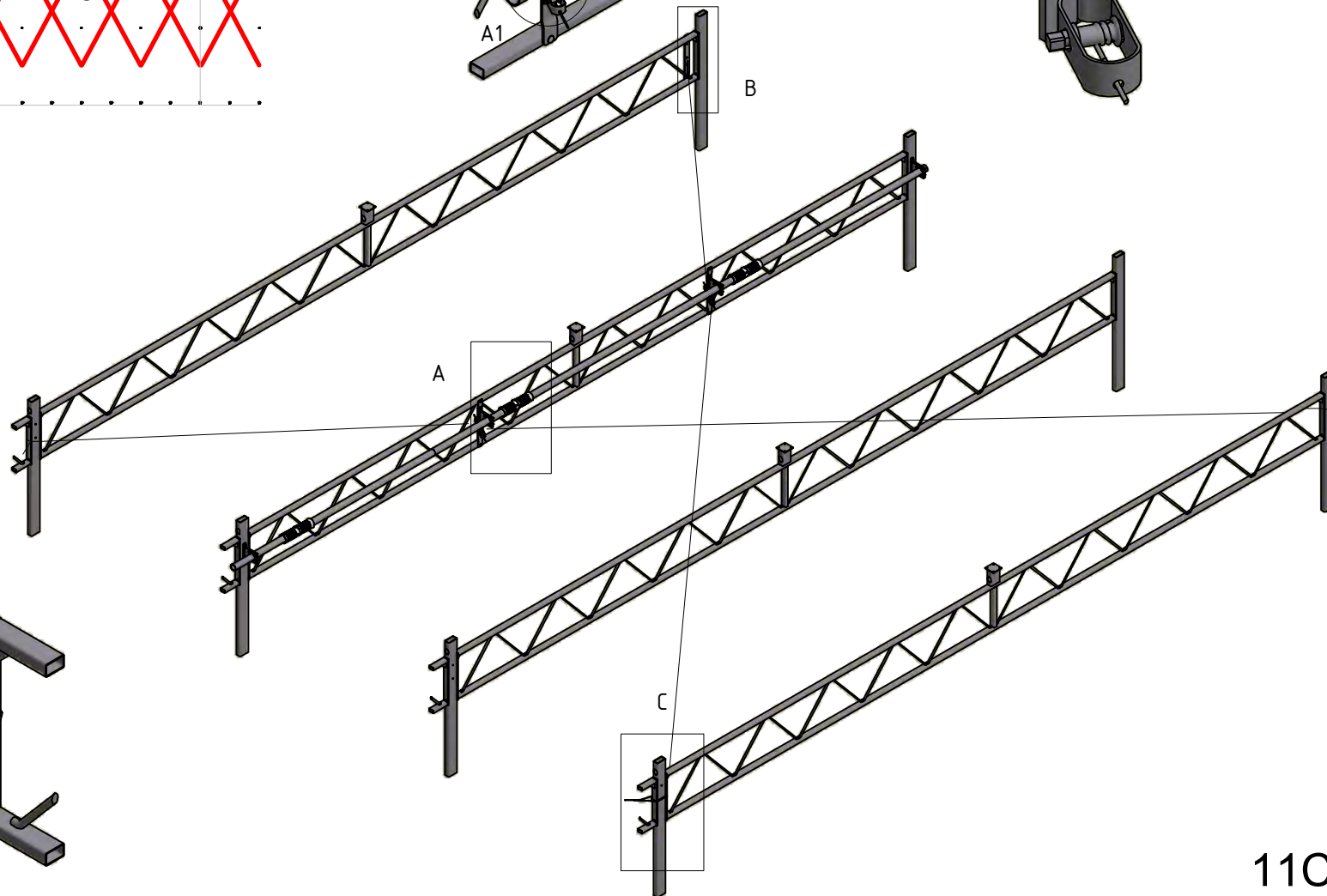


Bracing of bearing plate 2" at floating gutter
if the peak size is bigger than the section size

Detail A

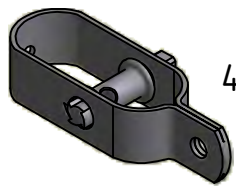


Detail A1



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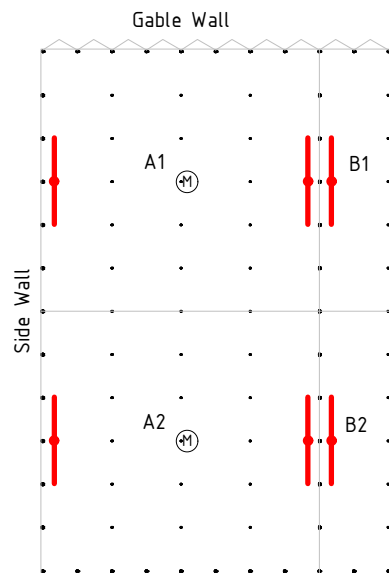
48.80.12



M8x20 55.40.20



M8 55.40.00



Bracing of bearing plate 2" at cloth hang down

VAN DER VALK

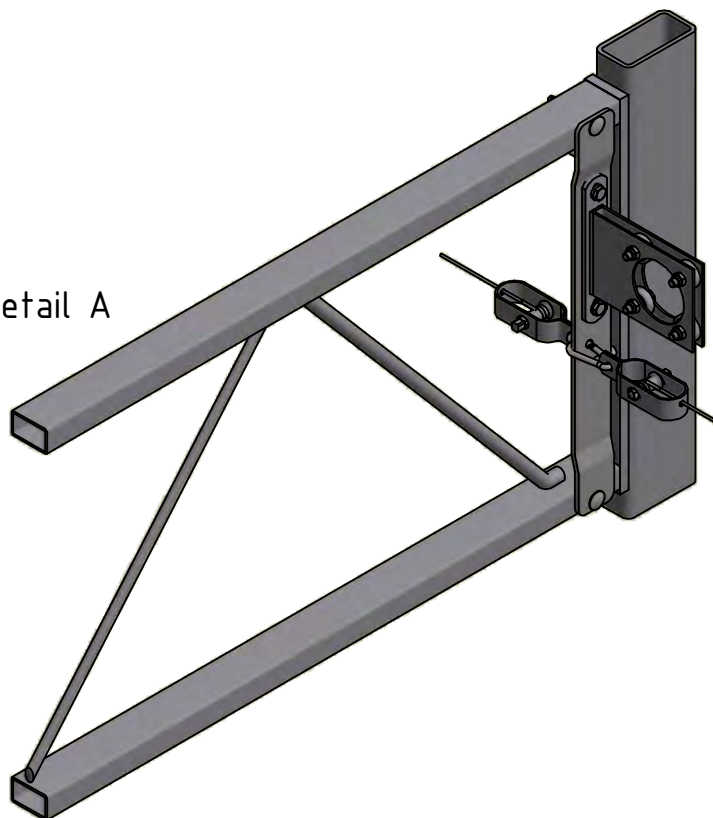


Page 12 B

A

Page 12 B

Detail A



Bracing of bearing plate 2" at cloth hang down

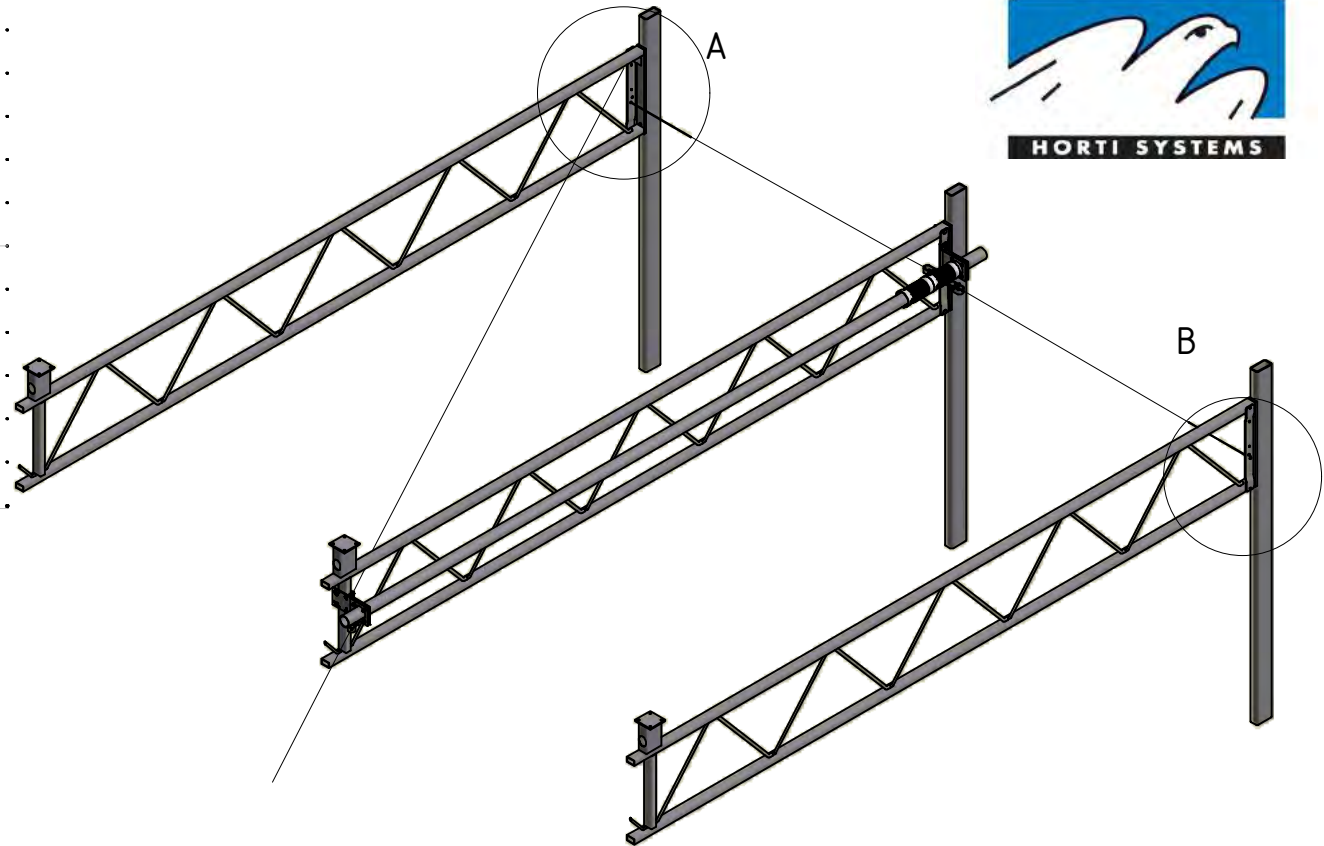
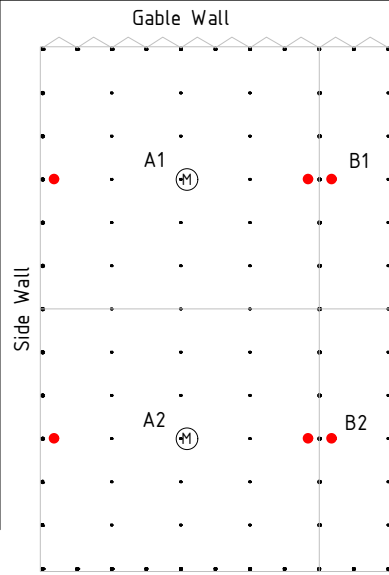
VAN DER VALK



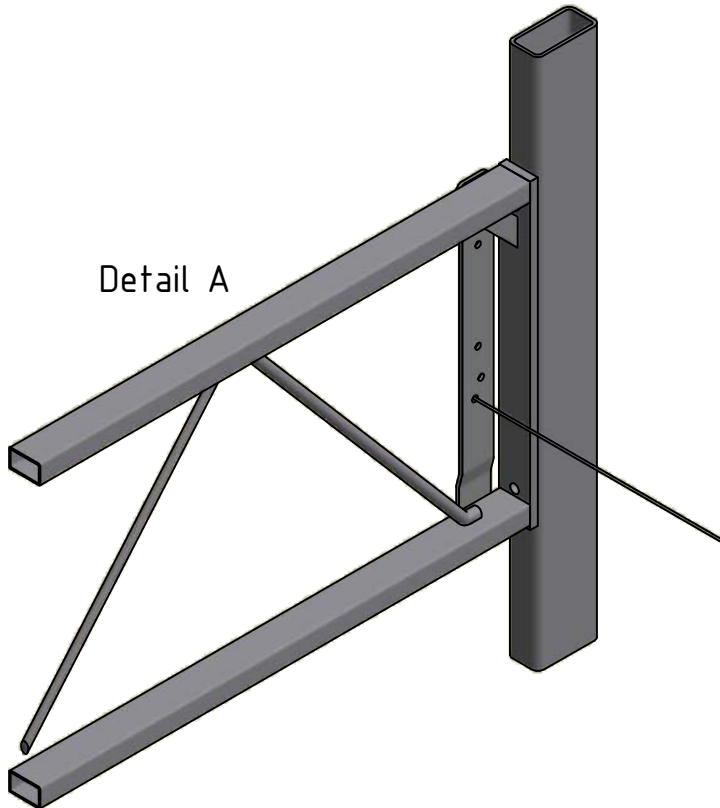
(L [mm])
44.82.10.-----



48.10.17

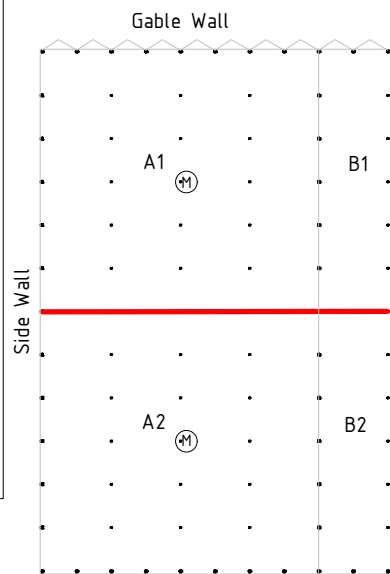


Detail A





45.20.^(H+3) [mm]

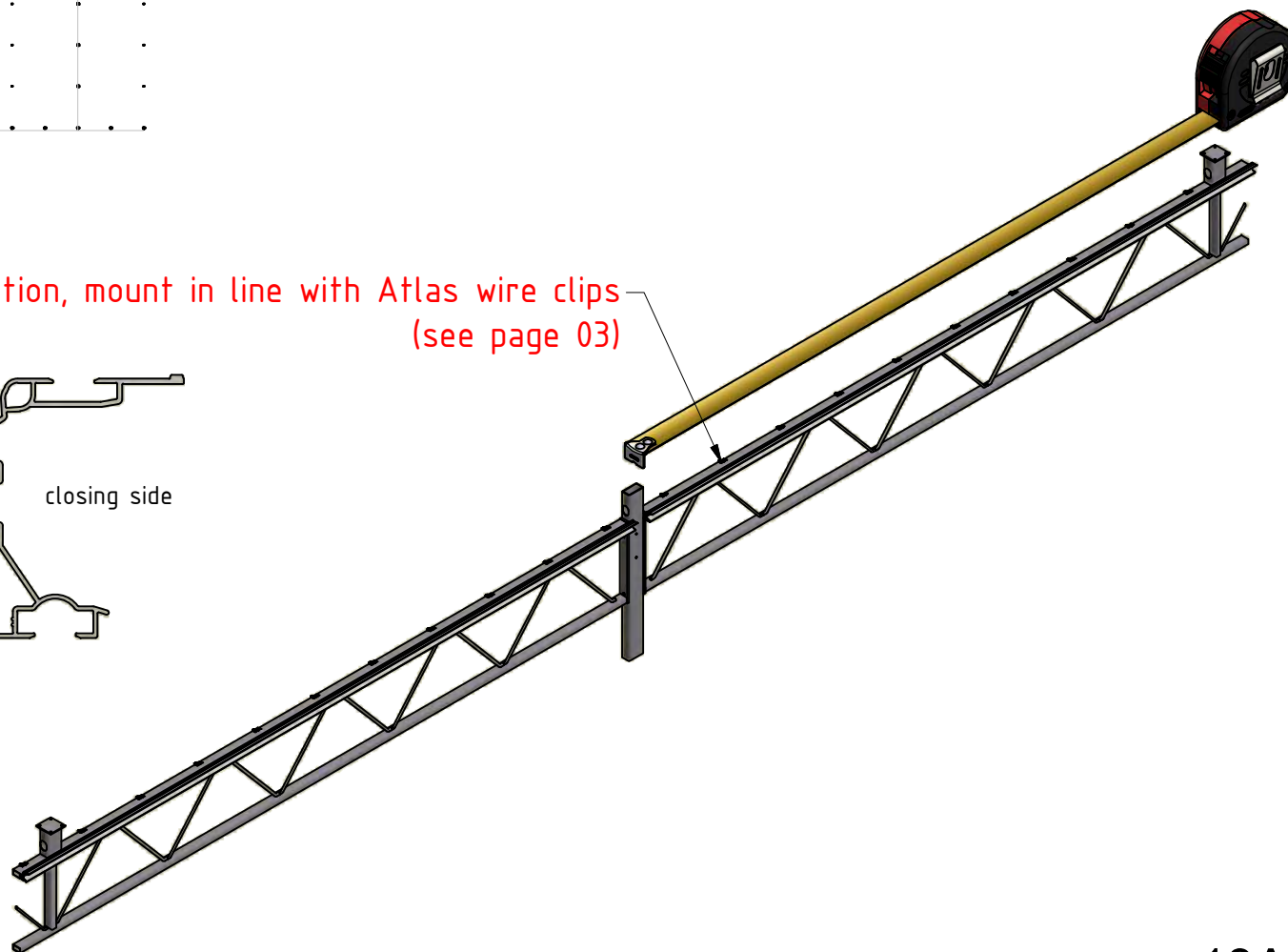
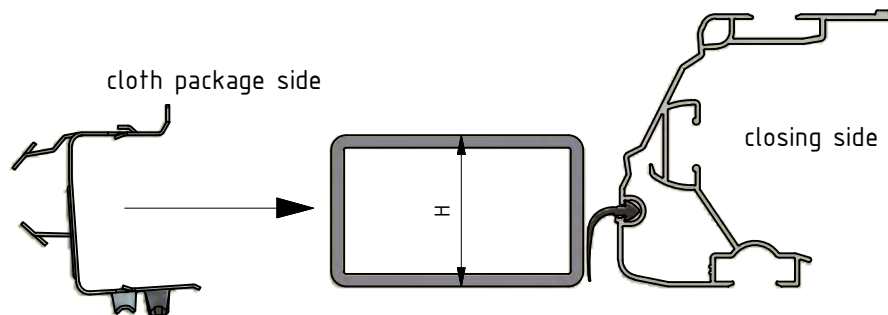


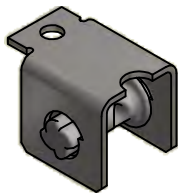
Measure row truss clips

VAN DER VALK



Attention, mount in line with Atlas wire clips
(see page 03)





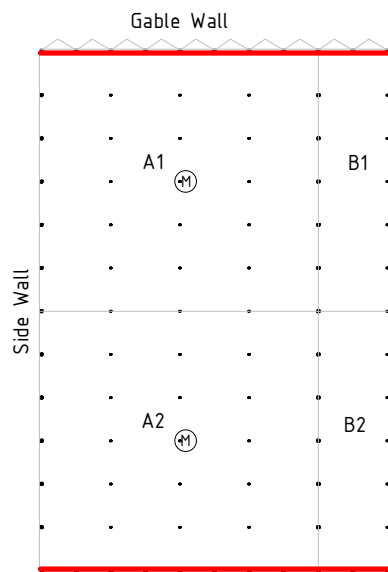
48.80.10



53.57.20



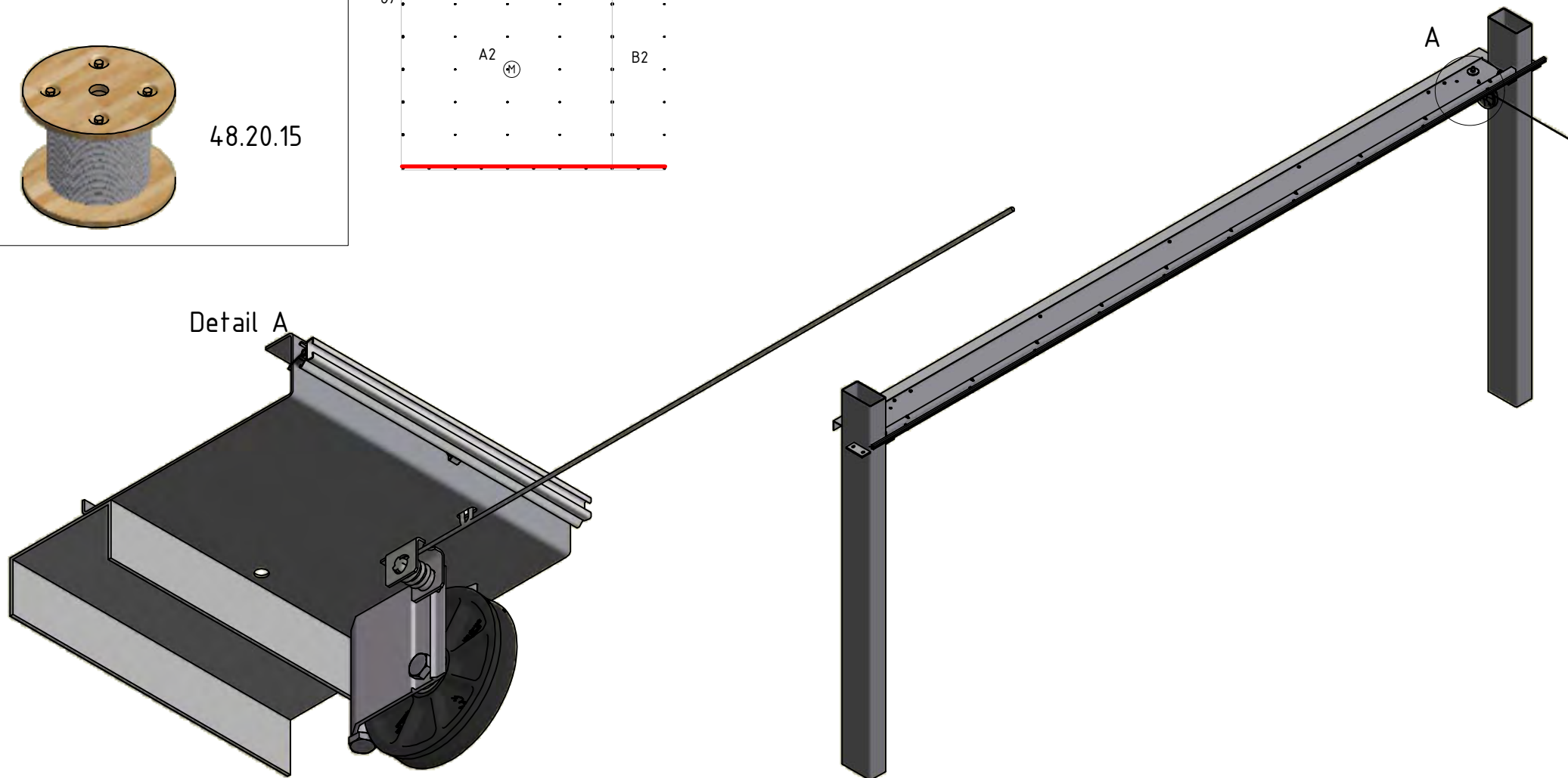
48.20.15



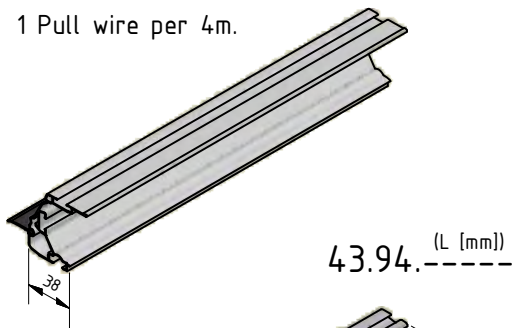
Galv. steel cable

Only at 5m bay size.

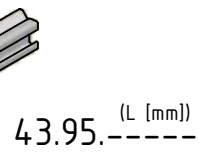
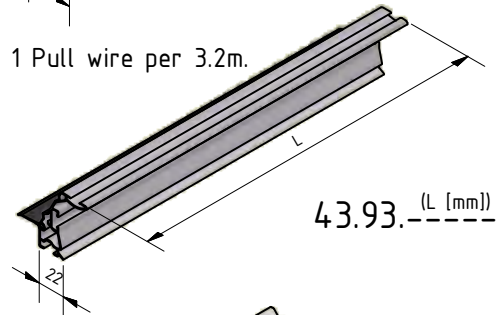
VAN DER VALK



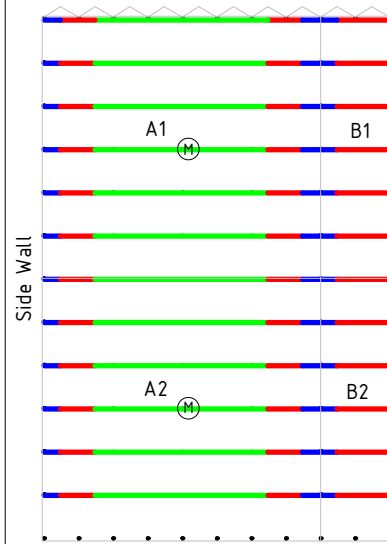
1 Pull wire per 4m.



1 Pull wire per 3.2m.



Gable Wall



Fix screen profile temporarily to trellis

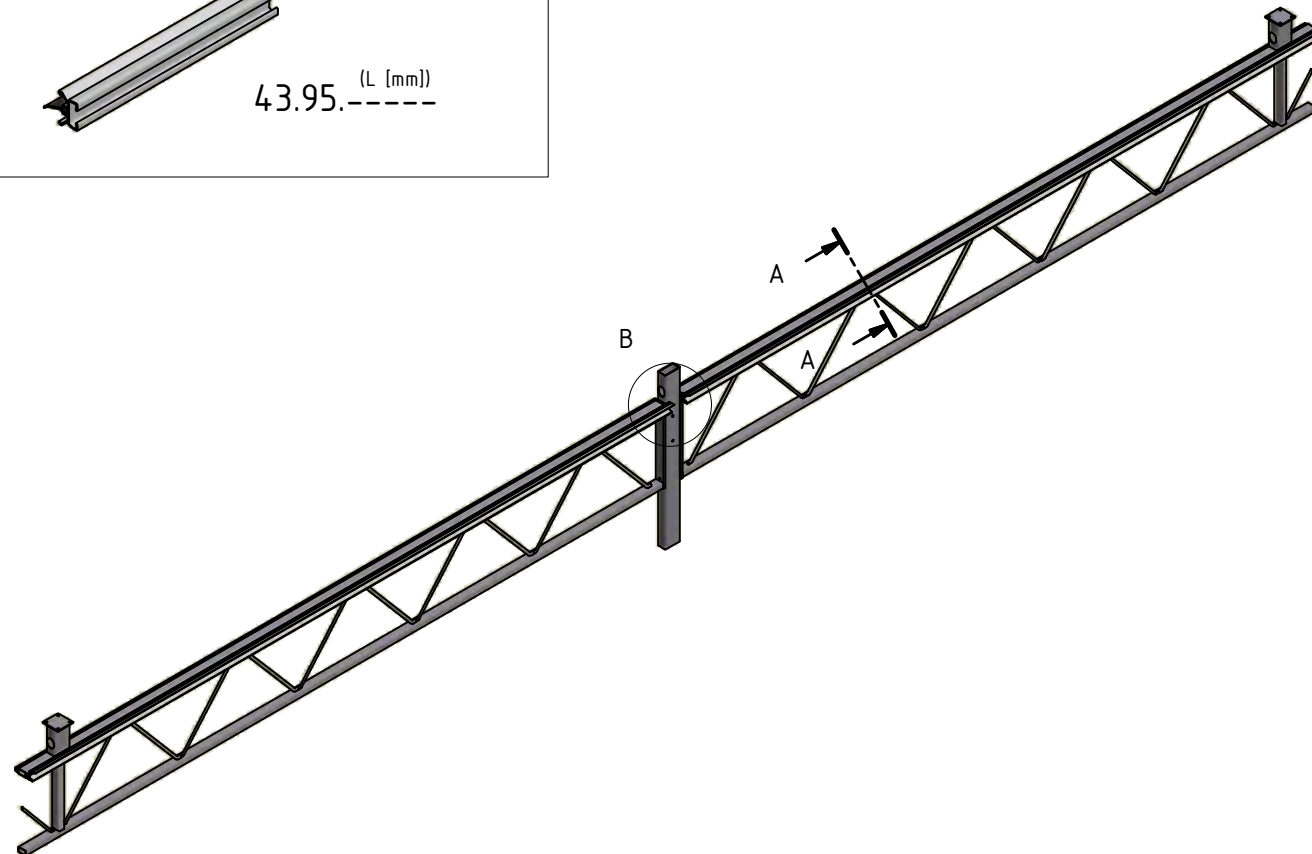
At the Side wall and the section separations shorter profiles are used. (see mini map)

Short profile 1600mm profile

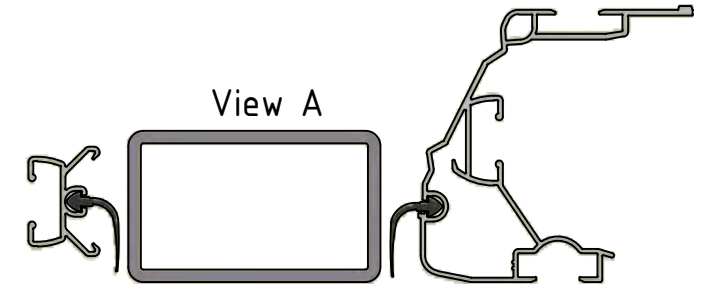
Long profile 6400mm profile

Normal profile 8000mm profile

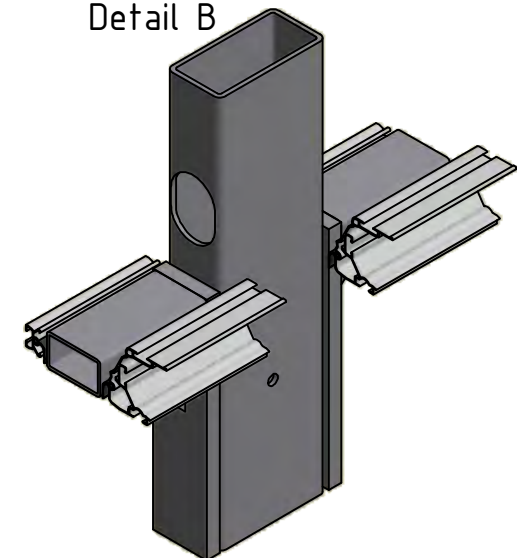
VAN DER VALK



View A

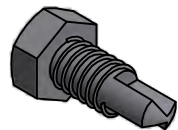


Detail B



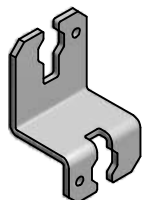


45.20.01

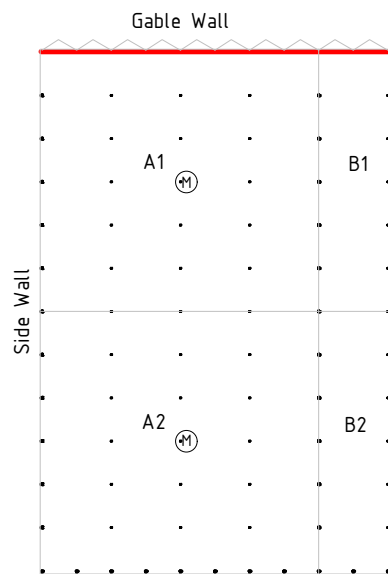


53.57.10

Assembly tool



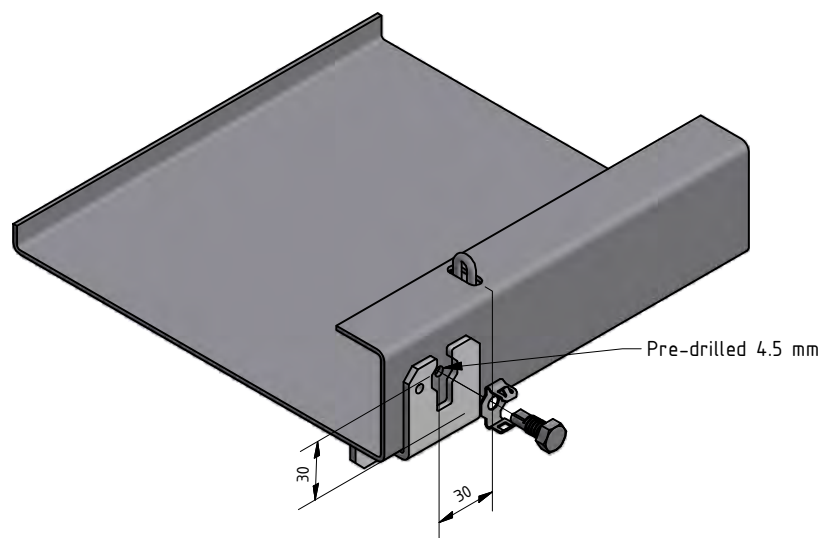
45.20.00



Detail A

Mounting Truss clips at the packageside of the Gable wall

VAN DER VALK

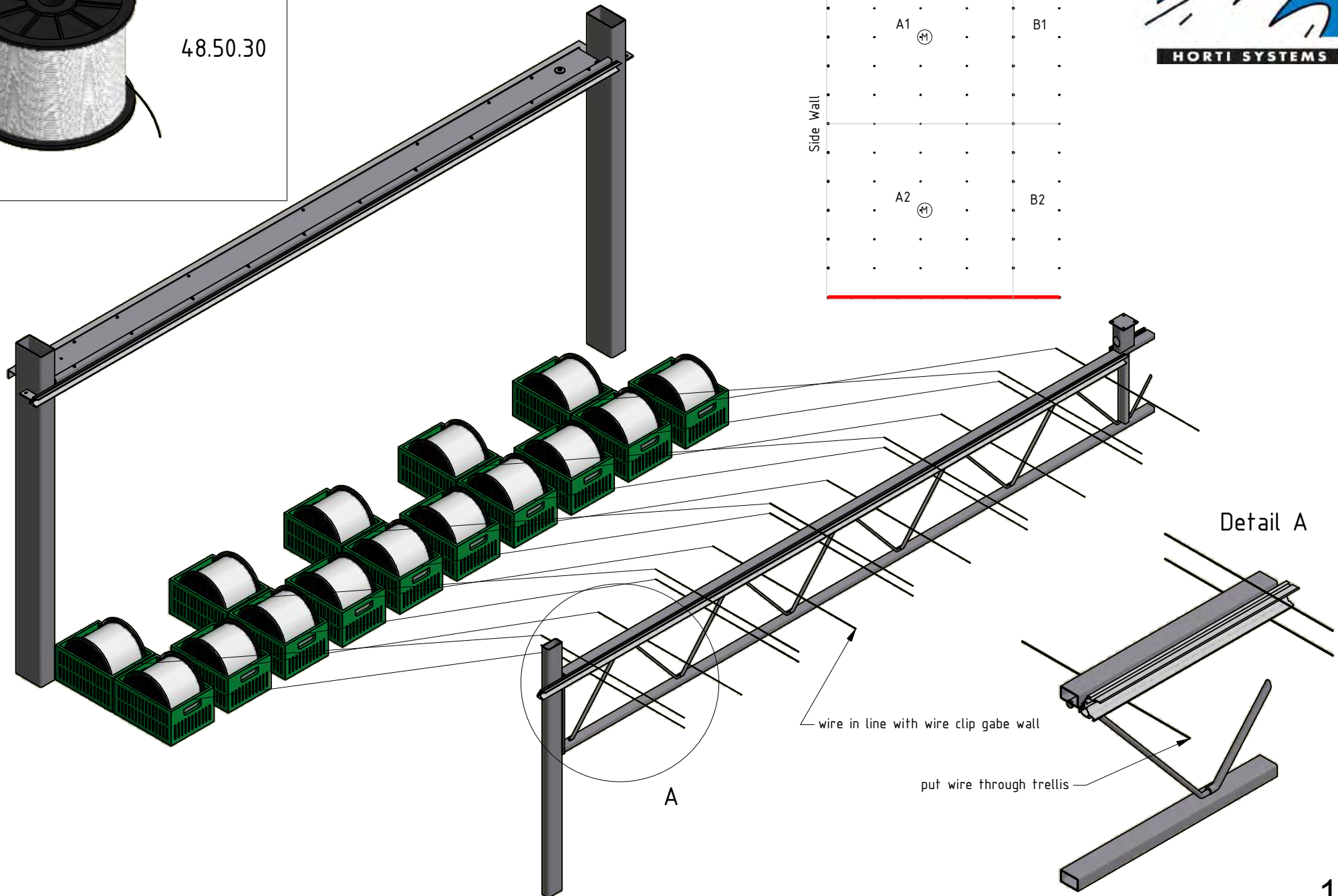
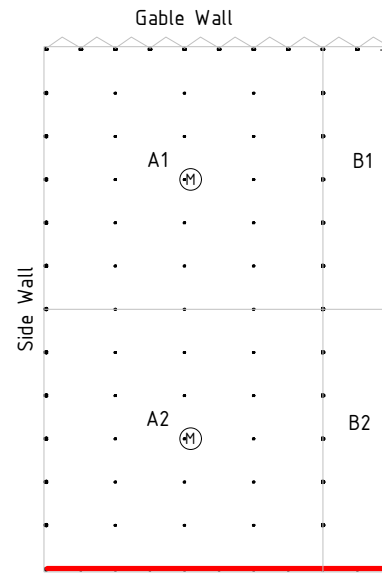


Polyester wire



48.50.30

VAN DER VALK

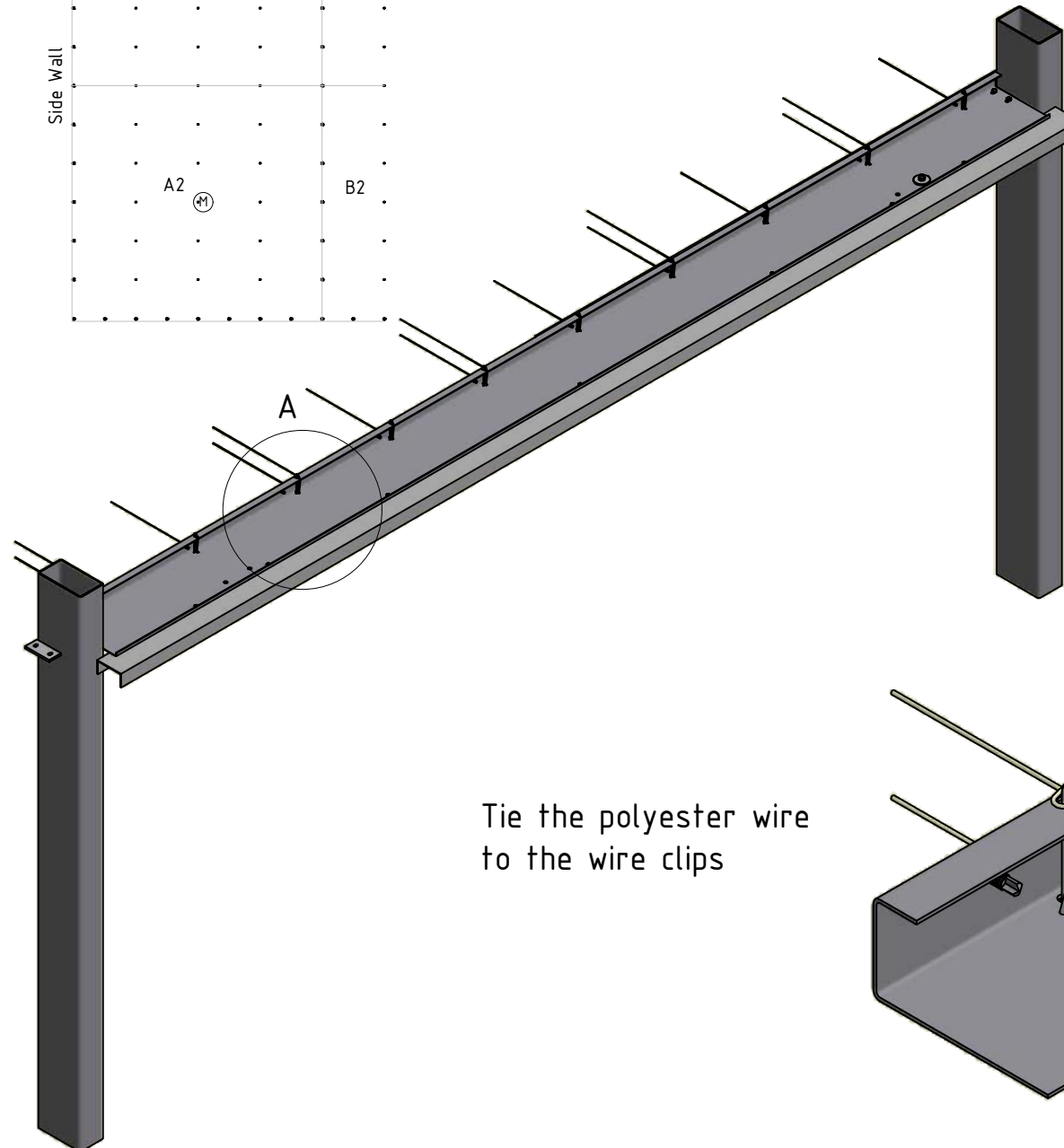
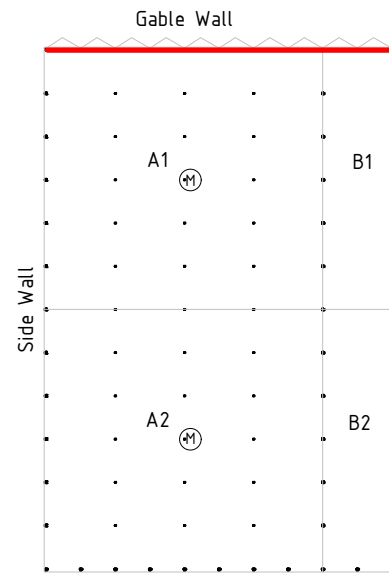




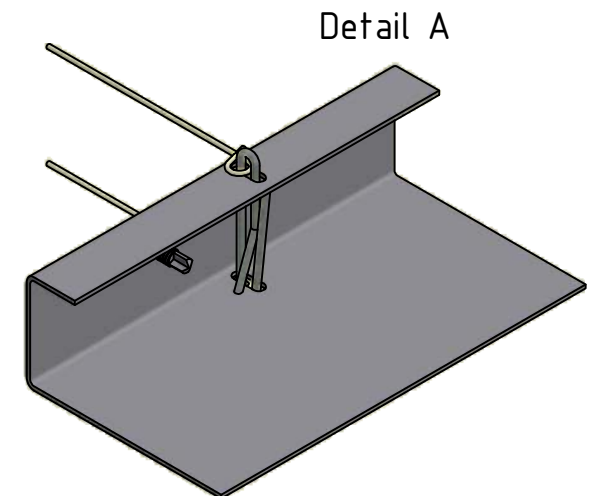
48.50.30

Polyester wire

VAN DER VALK



Tie the polyester wire
to the wire clips

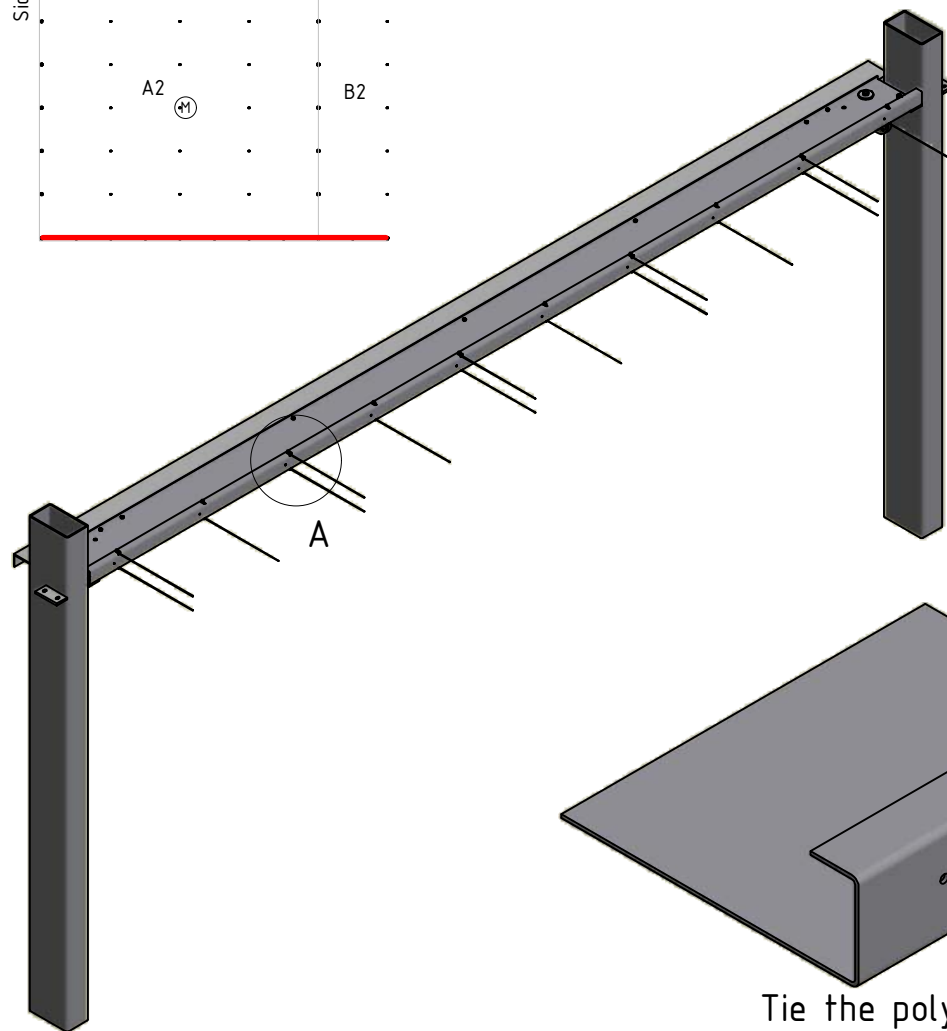
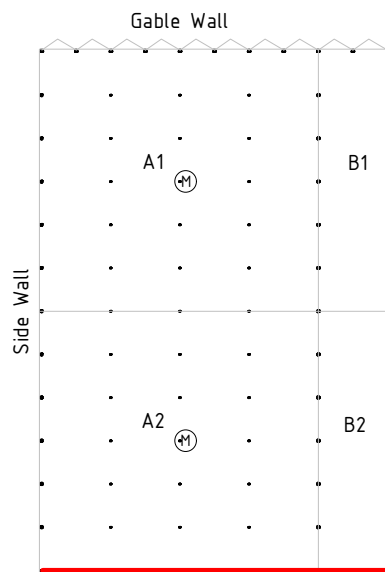




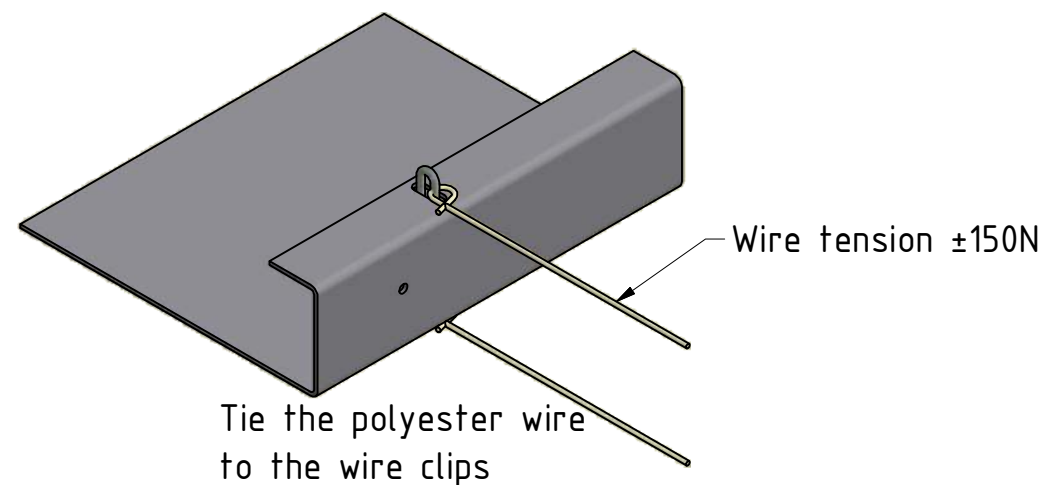
48.50.30

Polyester wire

VAN DER VALK



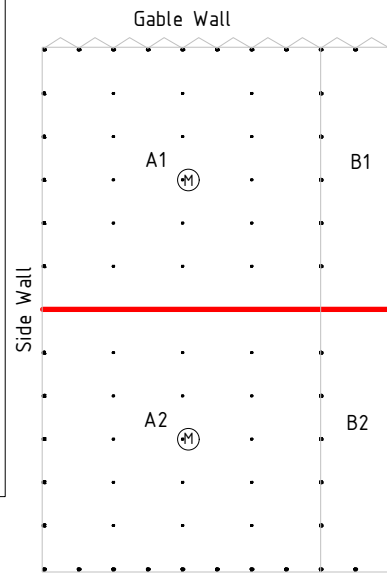
Detail A



Tie the polyester wire
to the wire clips

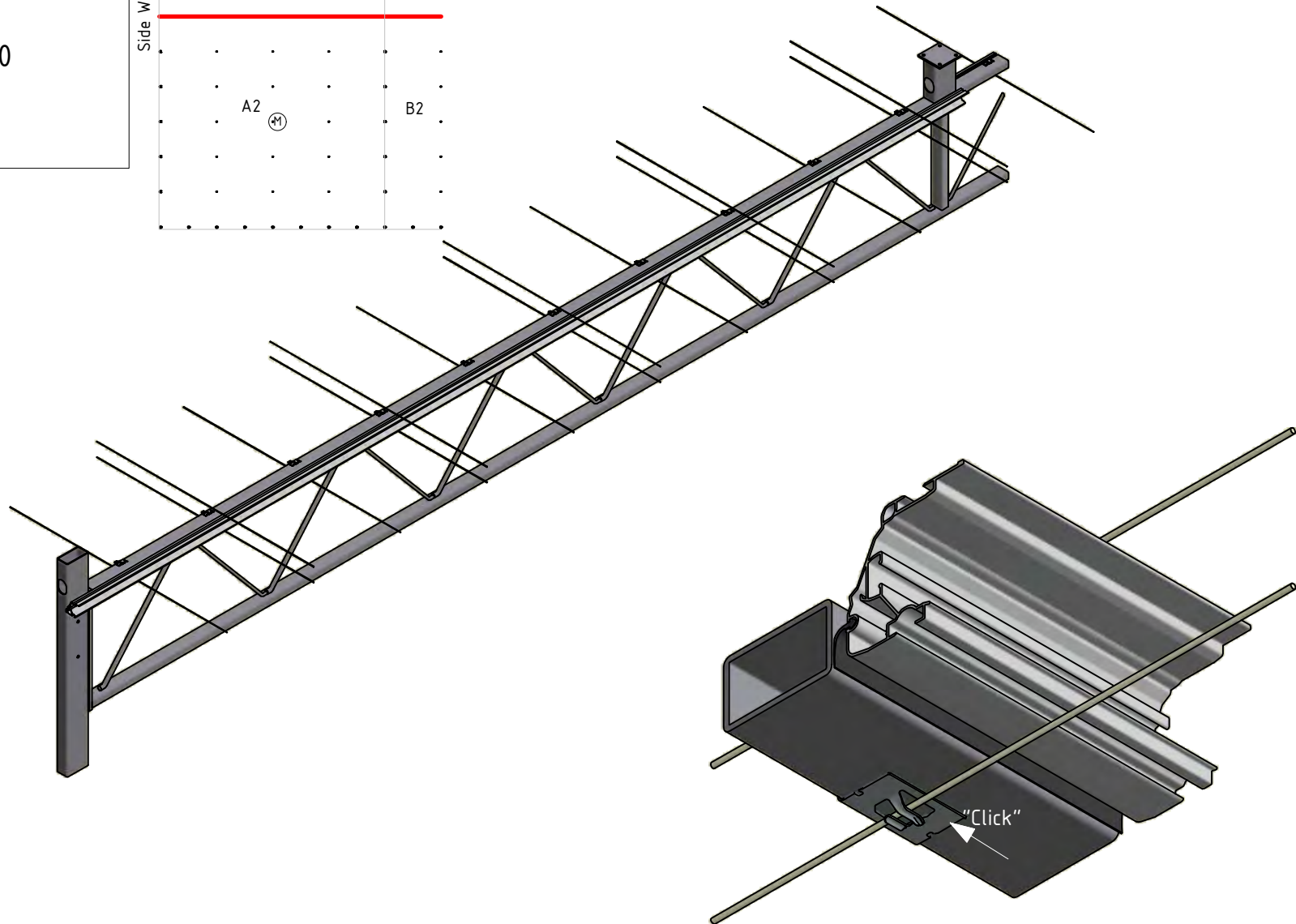


48.50.30



Mount wire in truss clips on measure row

VAN DER VALK

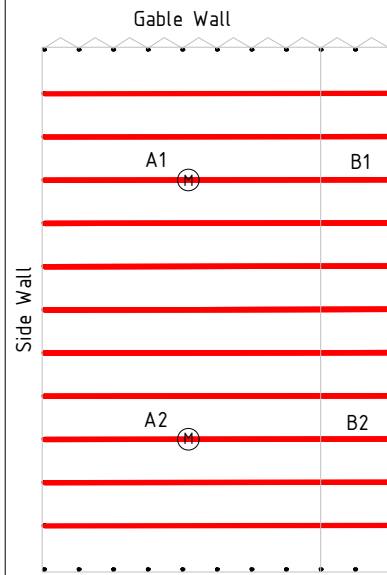




45.20.--- (H+3 [mm])

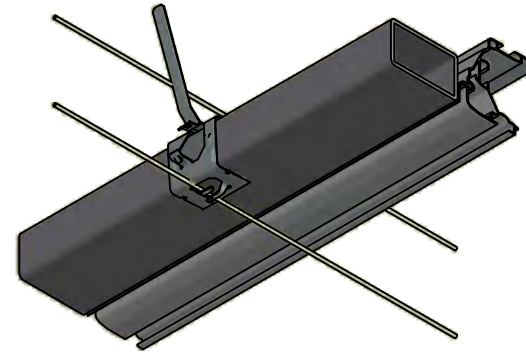


45.22.12

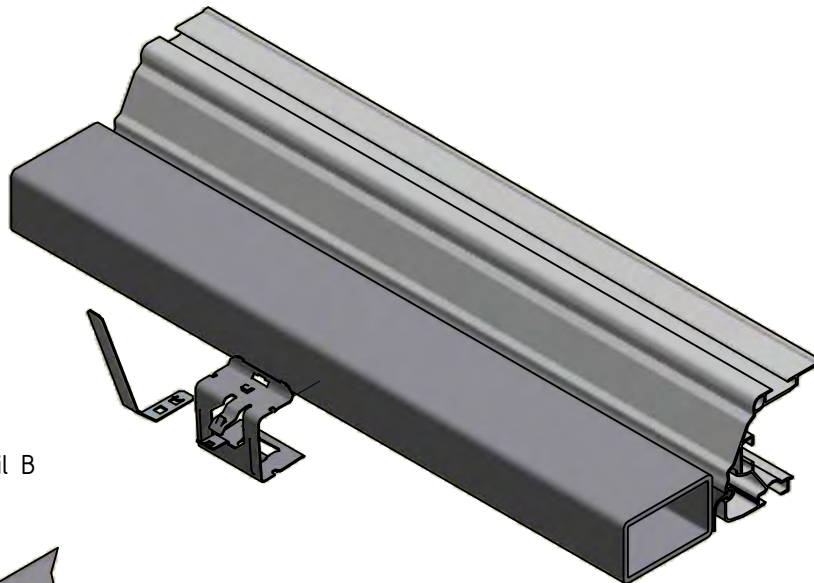


Truss clip and cloth stop finger

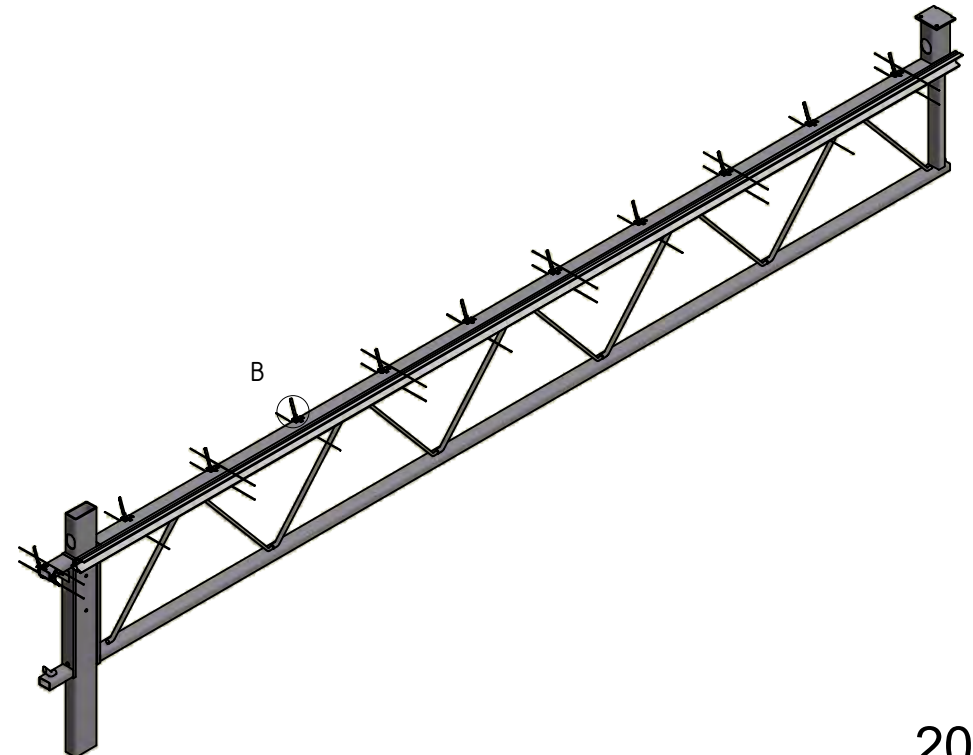
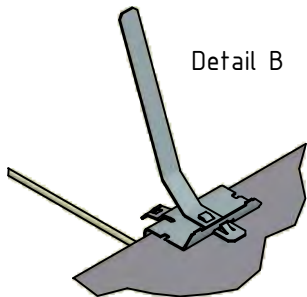
VAN DER VALK

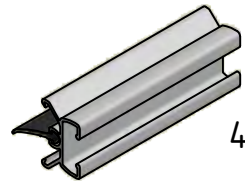


Detail A

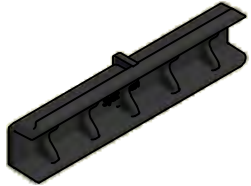


Detail B

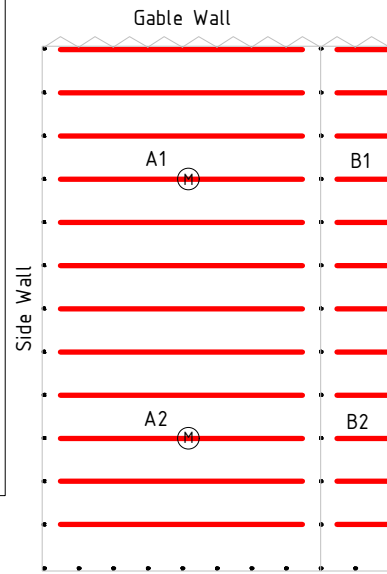




43.95.-- (L [mm])



44.15.60

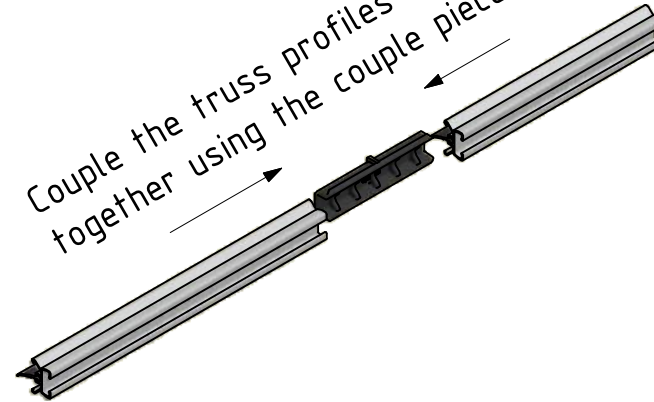


Truss Profile

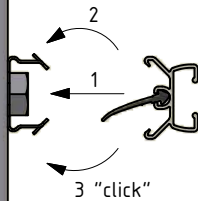
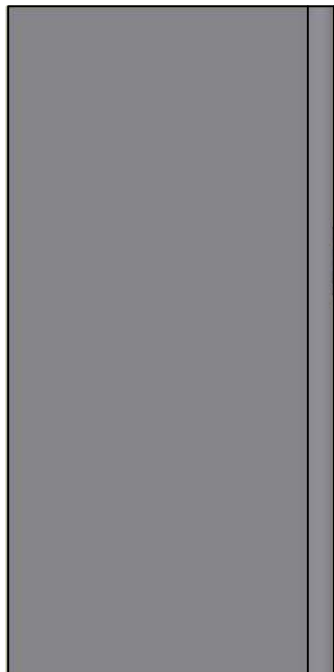
VAN DER VALK



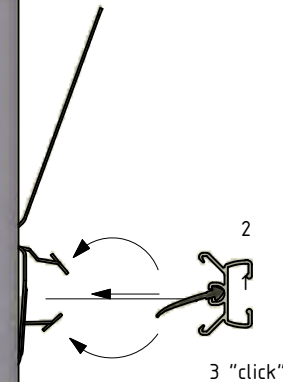
Couple the truss profiles together using the couple piece.



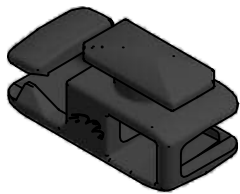
Gable wall



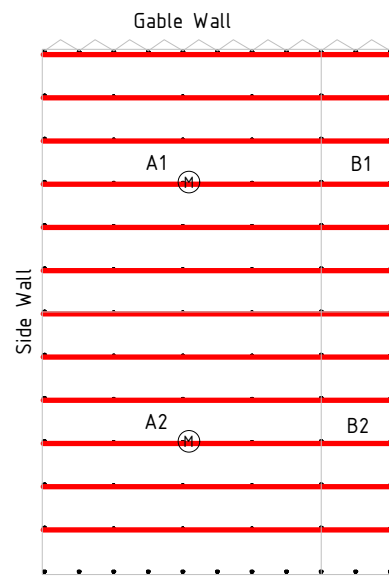
Trellis



Mount all the truss profiles to the truss clips, except the short profiles at the side walls or the section separations. (see mini map)

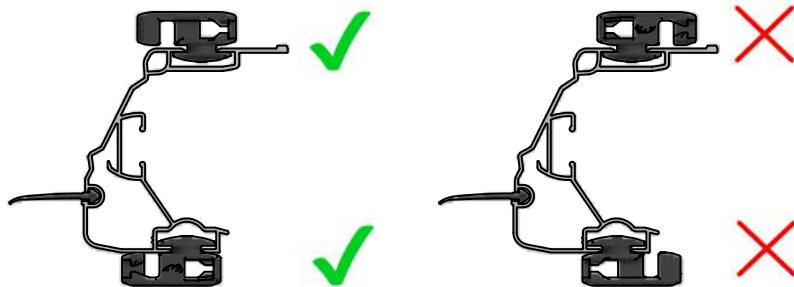
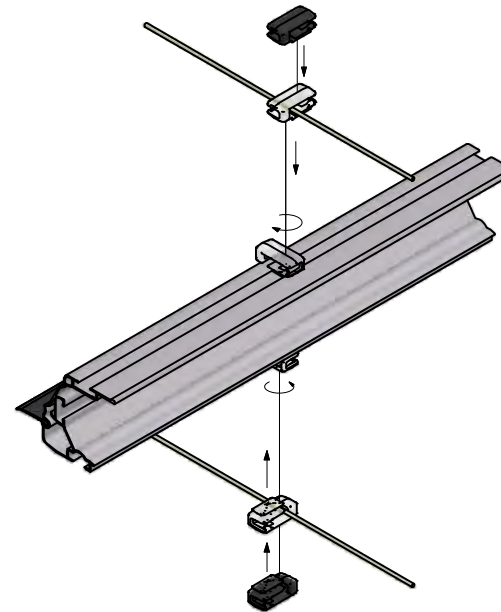


44.15.27

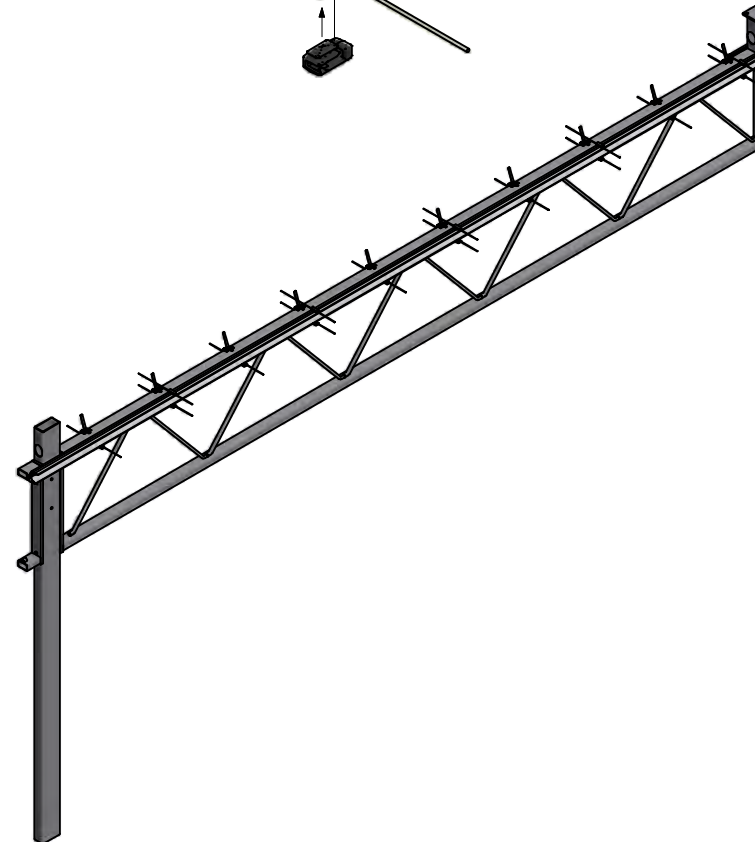


Mount wire guide blocks

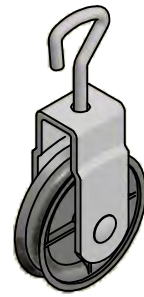
VAN DER VALK



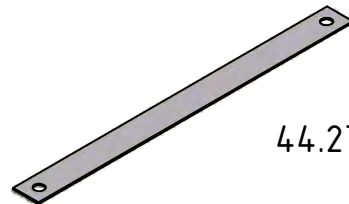
Mount the wire guide blocks
with the opening to the
front side of the profile



Mount V-pulley

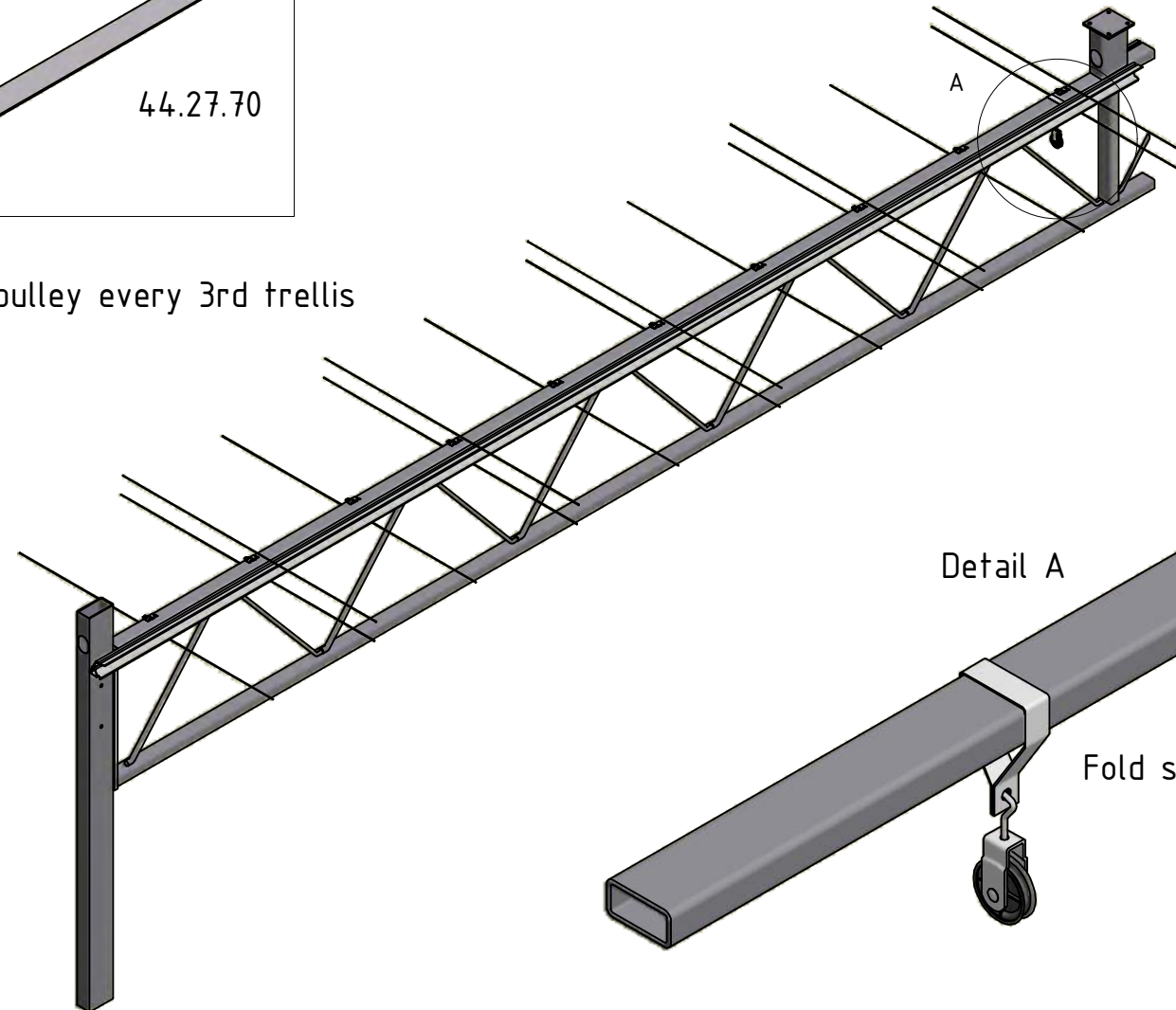


44.27.75

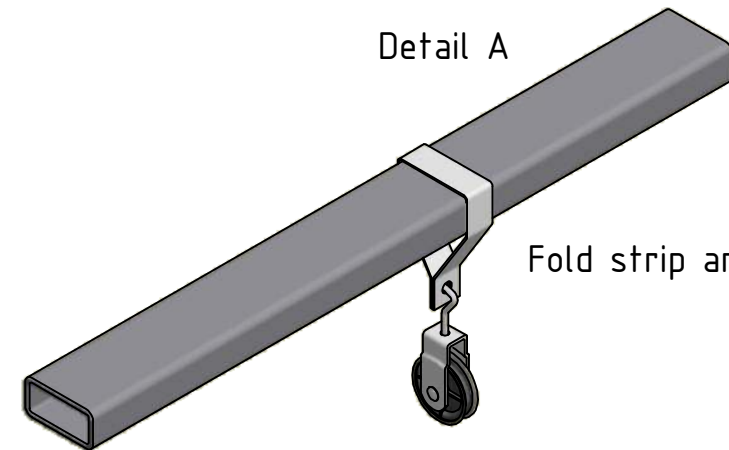


44.27.70

mount V-pulley every 3rd trellis



Detail A



Fold strip around trellis

Side Wall

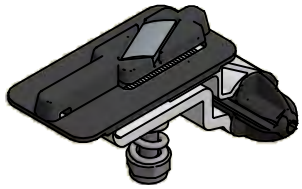
Gable Wall

A1 (M)

B1

A2 (M)

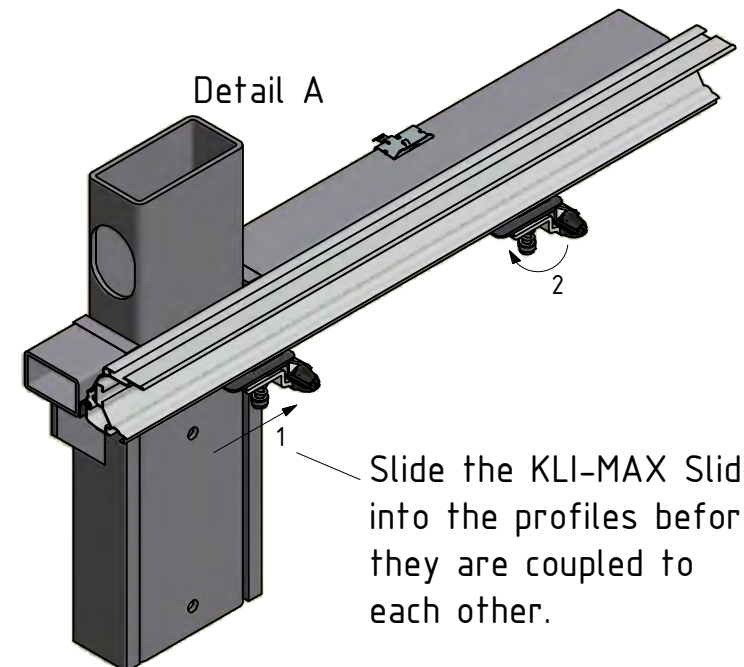
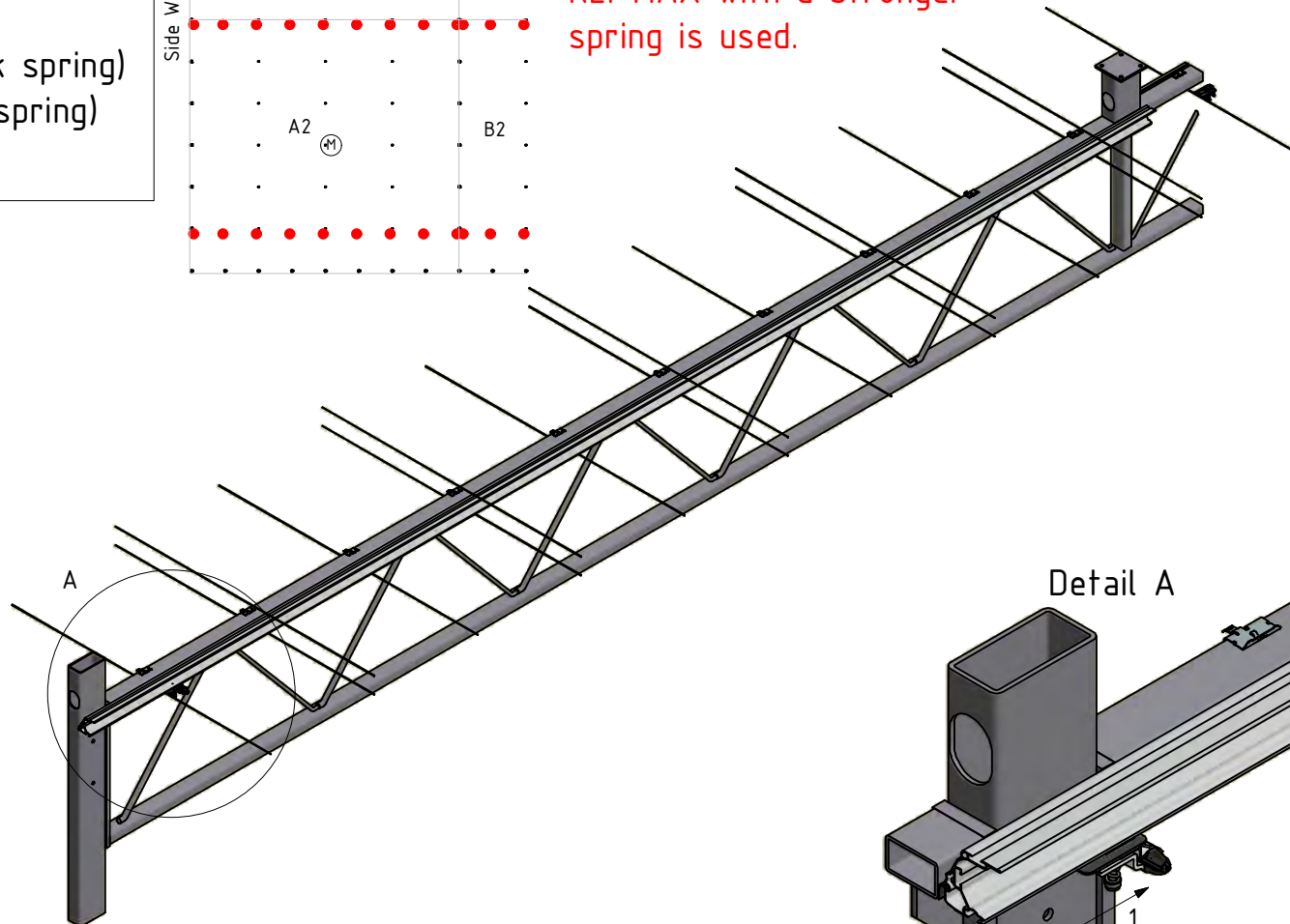
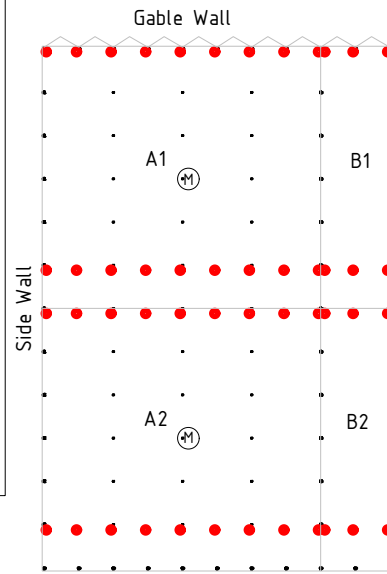
B2



44.40.45 (Blank spring)
44.40.46 (Red spring)

Mounting KLI-MAX Slide

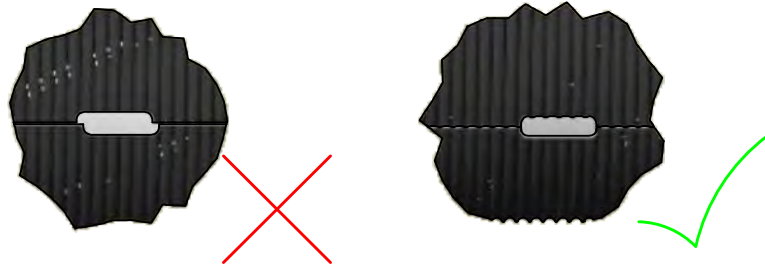
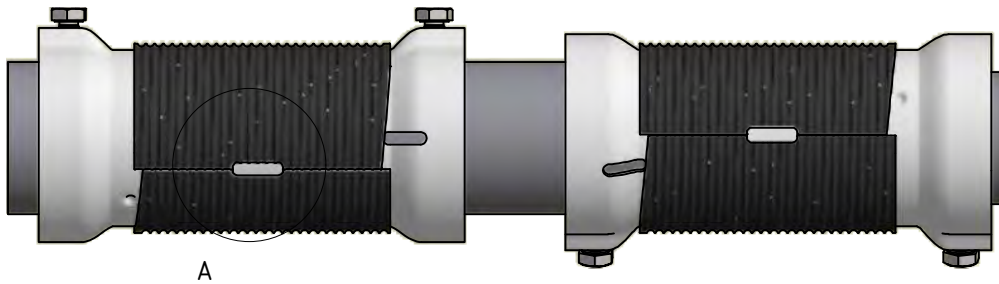
At the Side wall and the section separations a KLI-MAX with a stronger spring is used.



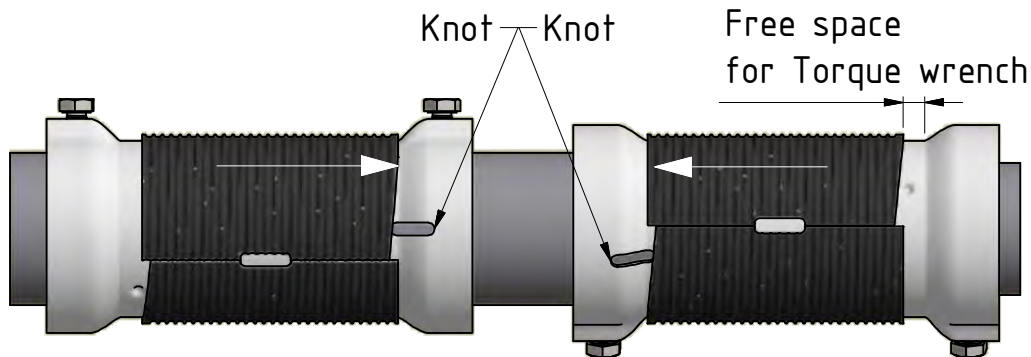
Slide the KLI-MAX Slide into the profiles before they are coupled to each other.

Before mounting the wire on the wire tensioners make sure that everything on page 24/24B is clear and understood.

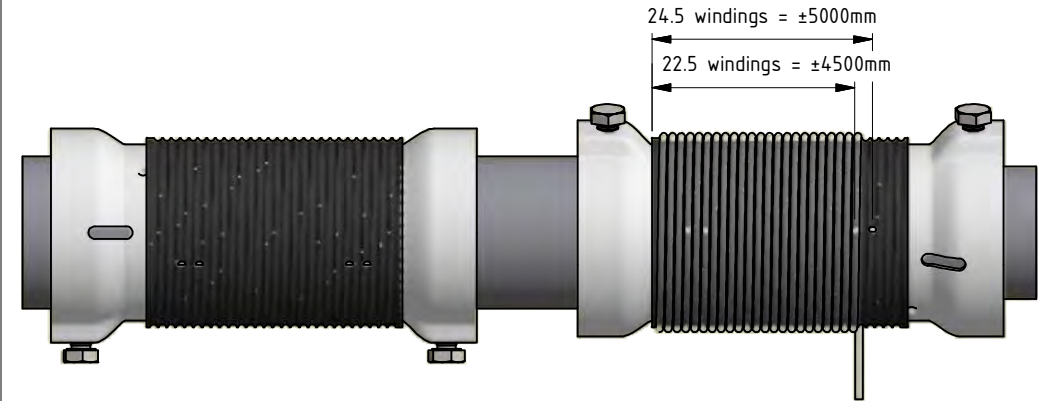
- 1 Make sure that the plastic cable drum is placed correctly. The plastic cable drum is correctly placed when the rectangular is aligned.



- 2 Make sure that the plastic cable drum is moved to the side where the knot will be placed. So that on the other side is enough space for the Torque wrench.

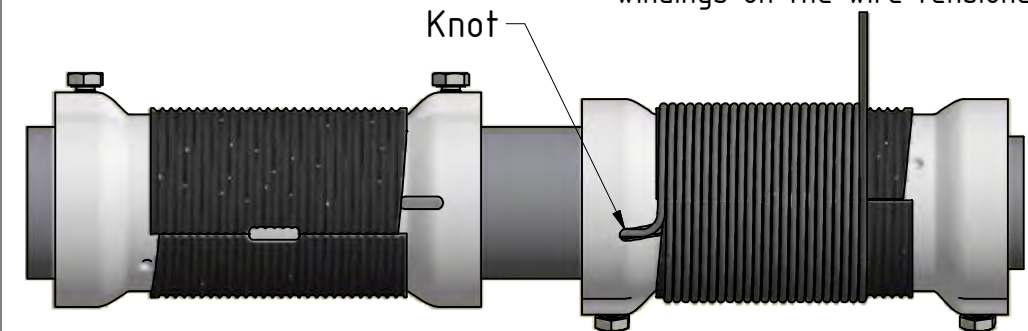


- 3 The holes in the plastic cable drum stand for how much wire need to be on the wire tensioners at a certain section size.



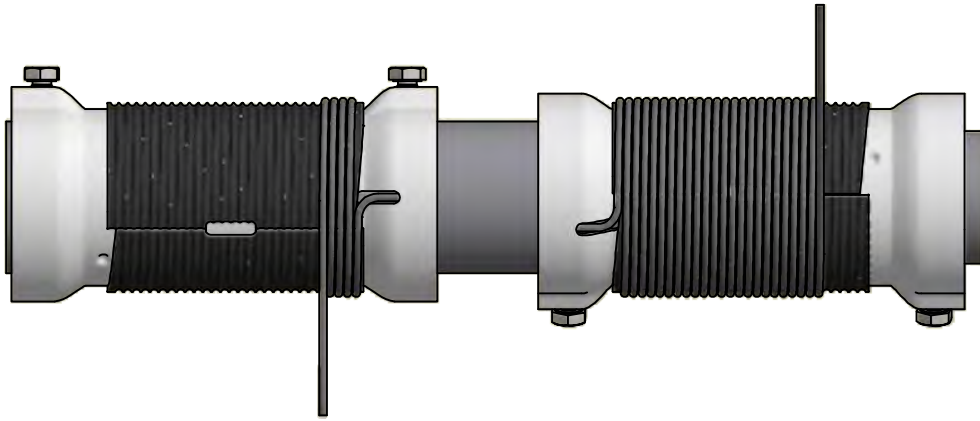
Bay size [mm]	No. of windings on wire tensioner 1	No. of windings on wire tensioner 2
3200	3.5	17.5
3658	3.5	19.5
4000	3.5	20.5
4500	3.5	22.5
5000	3.5	24.5

- 4 Tie a knot at the end of the wire and place the required number of windings on the wire tensioner.

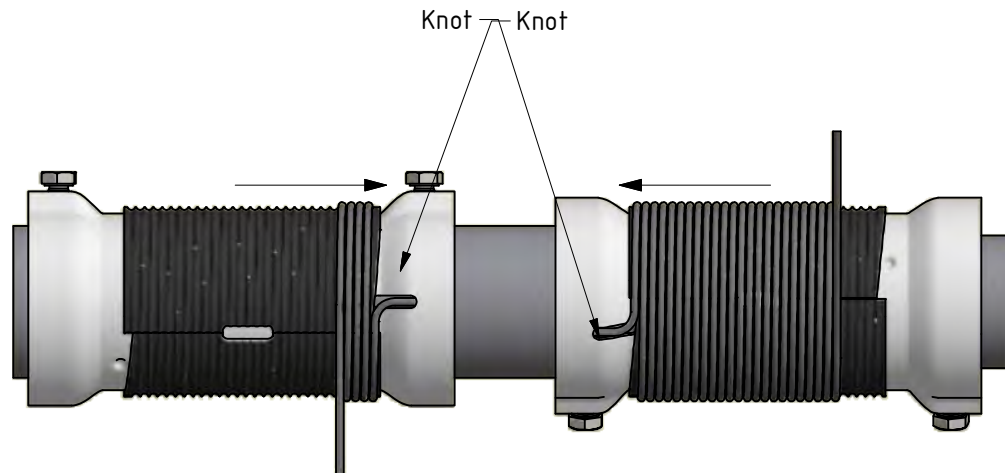


Before mounting the wire on the wire tensioners make sure that everything on page 24/24B is clear and understood.

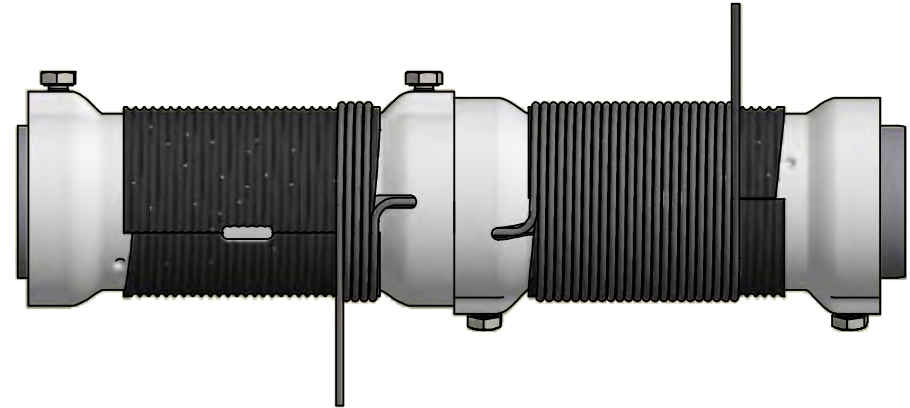
- 5 Make sure that there is ca. one meter extra wire available for the 3,5 windings on the other wire tensioner, as shown below.



- 6 Slide the wire tensioners together so that the knots are hidden between the two wire tensioners.



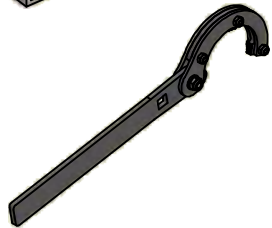
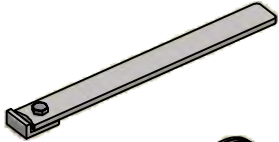
- 7 In the end the wire has to be on the wire tensioners as is shown in the drawing below.



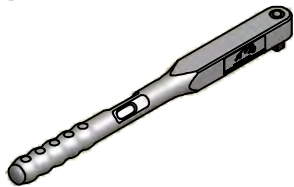
When finished page 24/24B continue to page 24C for tensioning of the wire.



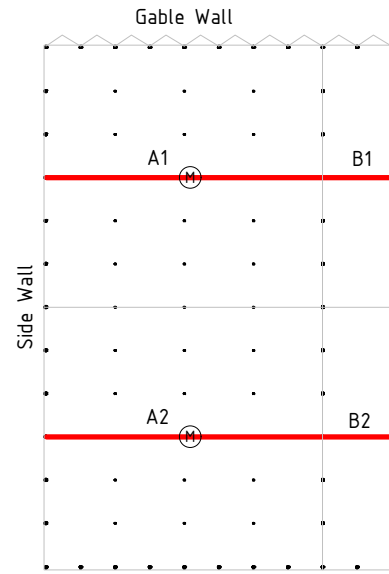
48.10.17



61.16.11



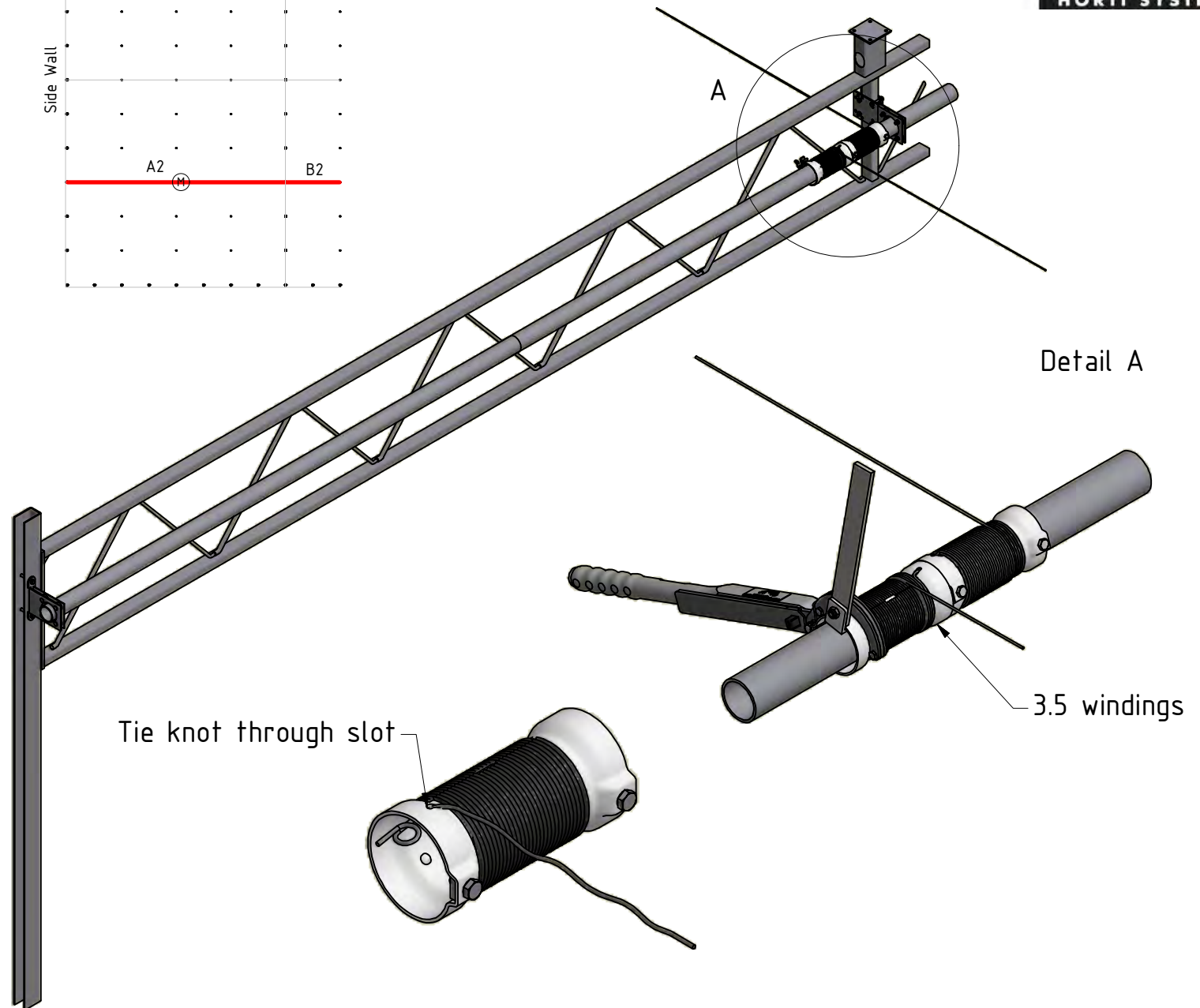
61.16.15



Mount steel cable at wire tensioner

For required cable tension see page 26 B

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Detail A

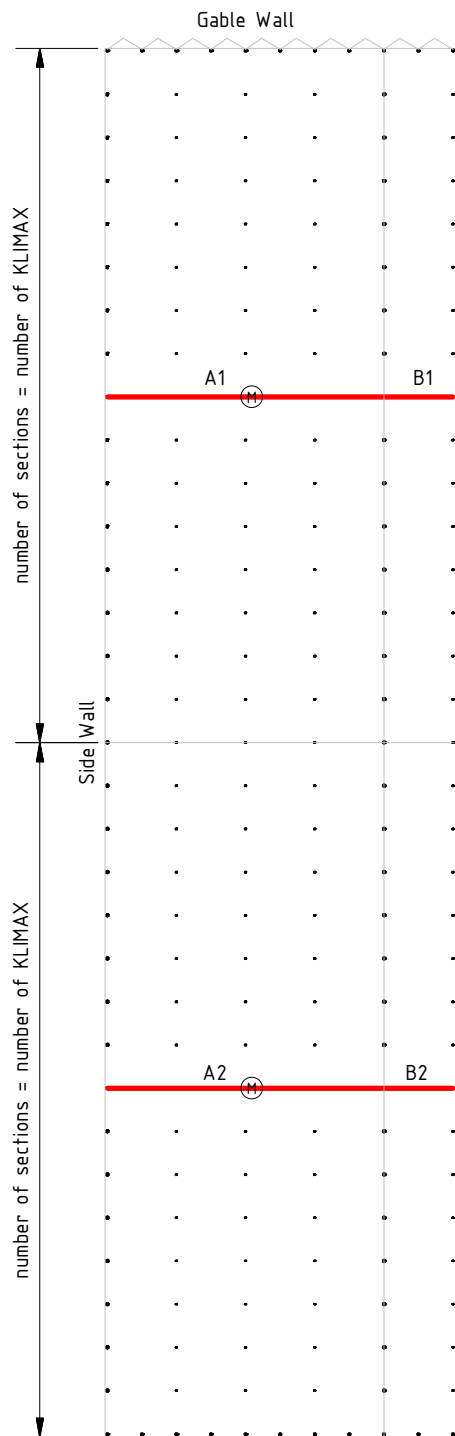
3.5 windings

Tie knot through slot



KLIMAX green has a max. skid force of 3,5 kg
 KLIMAX blank has a max. skid force of 6 kg
 KLIMAX red has a max. skid force of 9 kg

In the neutral position (= mounting position)
 there should be a certain tension to be applied.
 This tension (= pretension) is of great importance
 for the correct operation of the system.
 The pretension depends on the number
 of slip blocks on one steel cable.



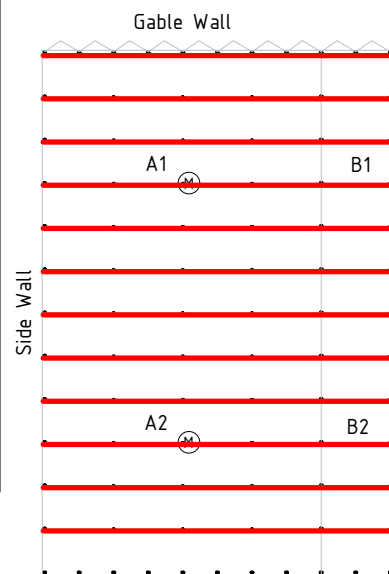
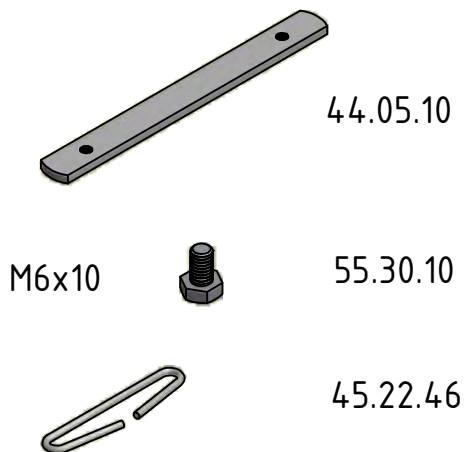
$$\text{Cable pre tension} = \frac{(\text{number of KLIMAX} \times \text{max. skid force})}{2} + 20 \text{ kg}$$

Example: See greenhouse on the left with 16 sections and a blank KLIMAX

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

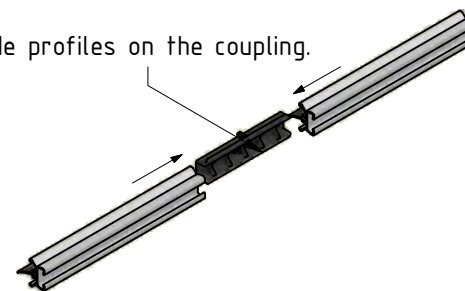
the torque wrench must be set to 35 Nm (See table)

Cable tension	Moment
[kg]	[Nm]
40	20
50	25
60	30
80	40
100	50
130	60

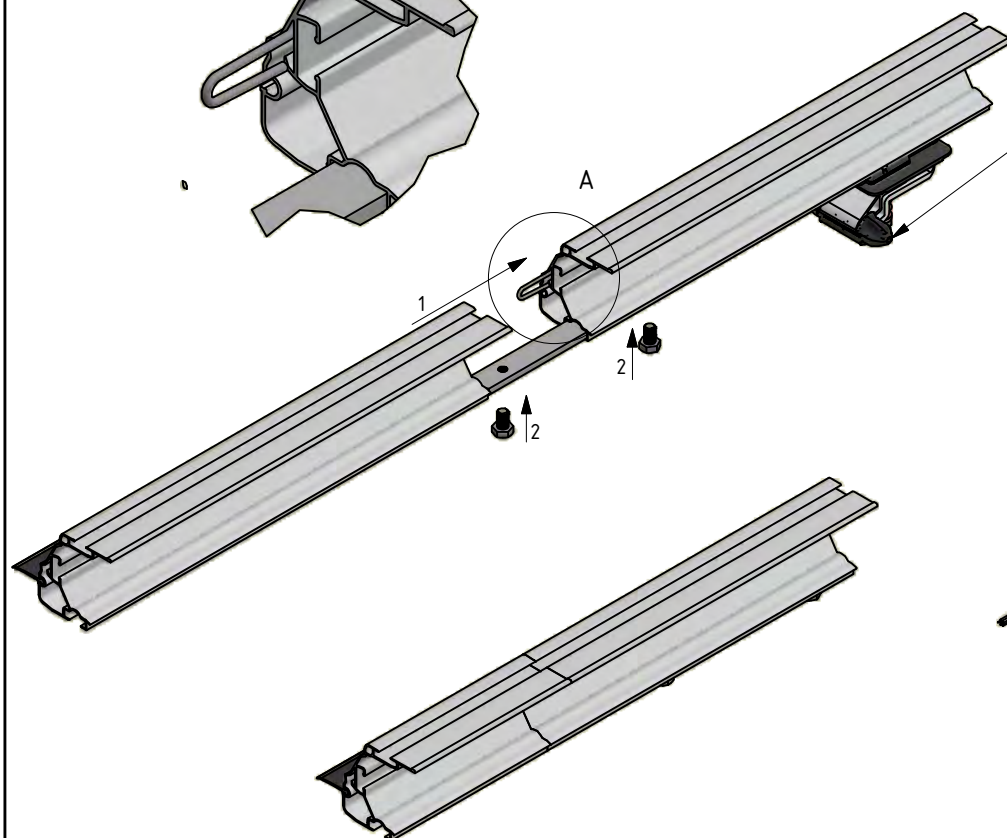
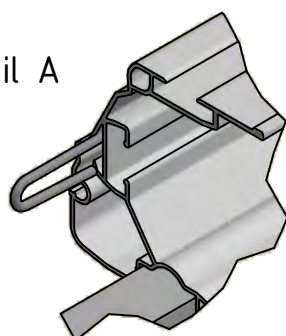


Coupling profile

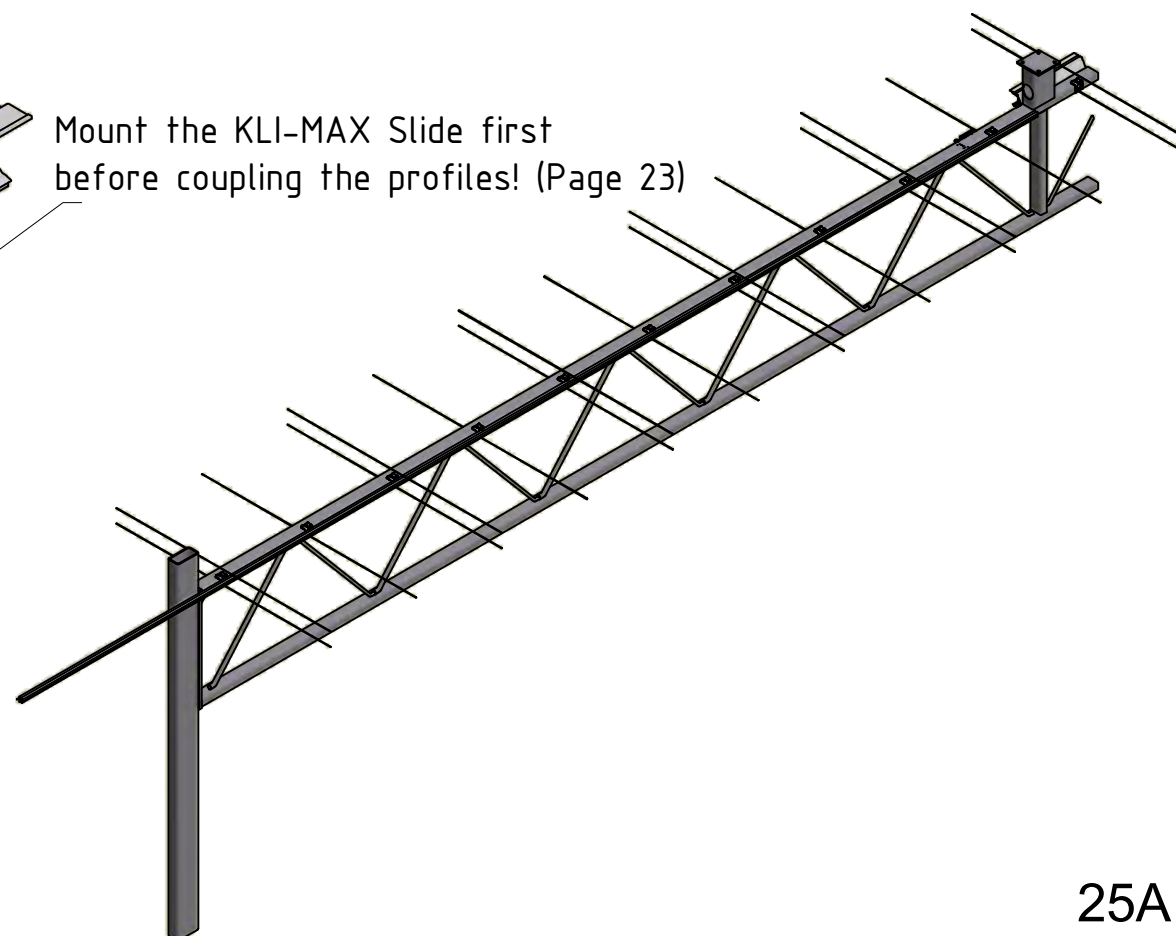
Slide profiles on the coupling.

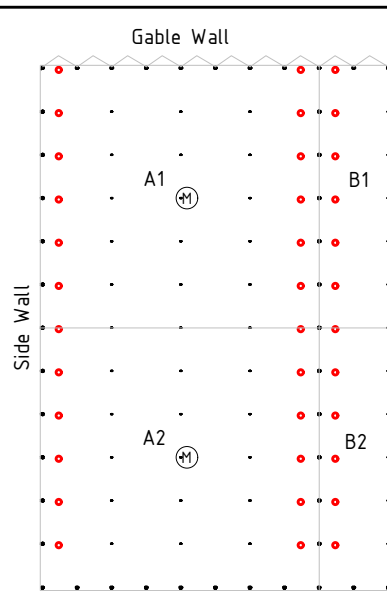
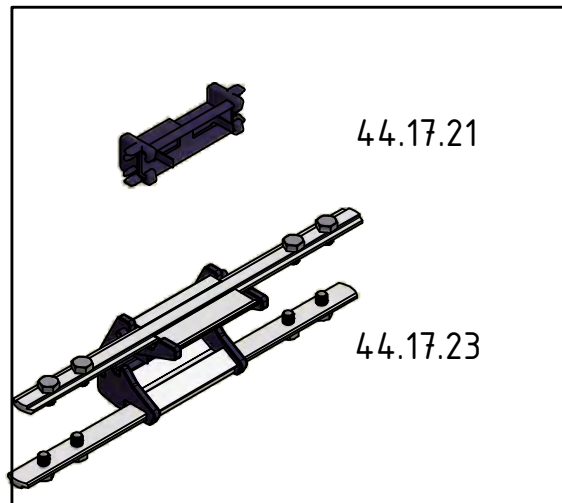


Detail A



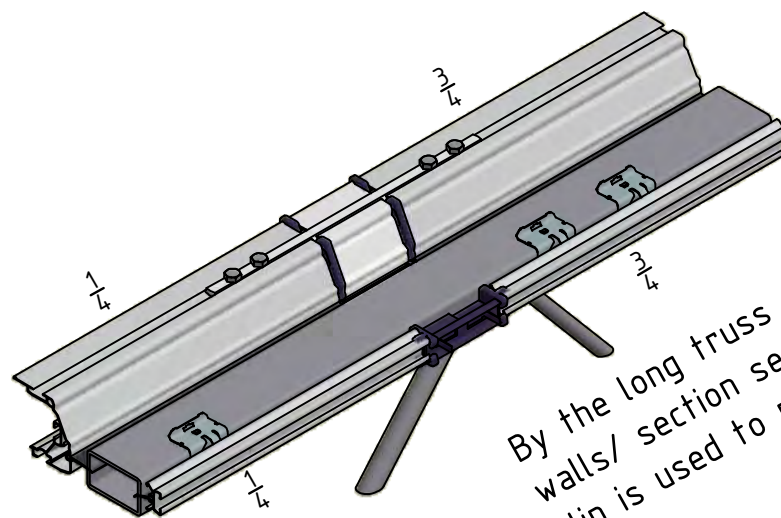
Mount the KLI-MAX Slide first before coupling the profiles! (Page 23)





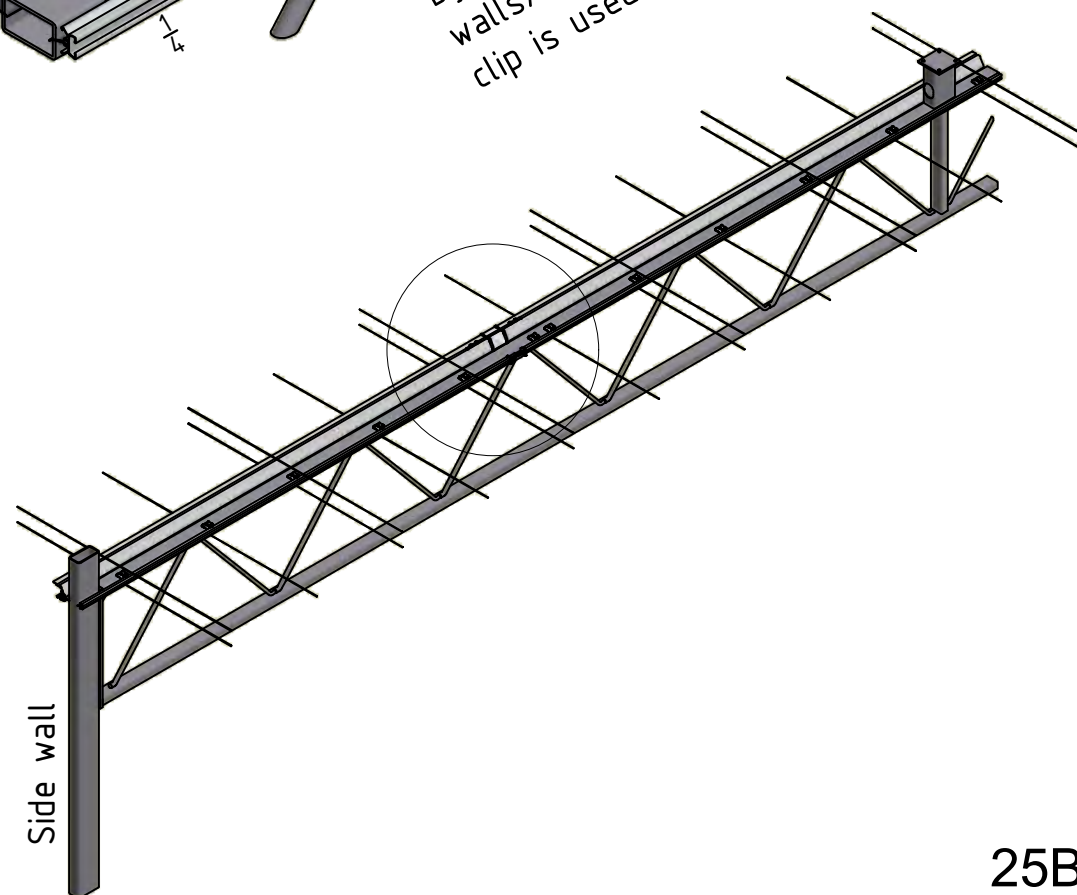
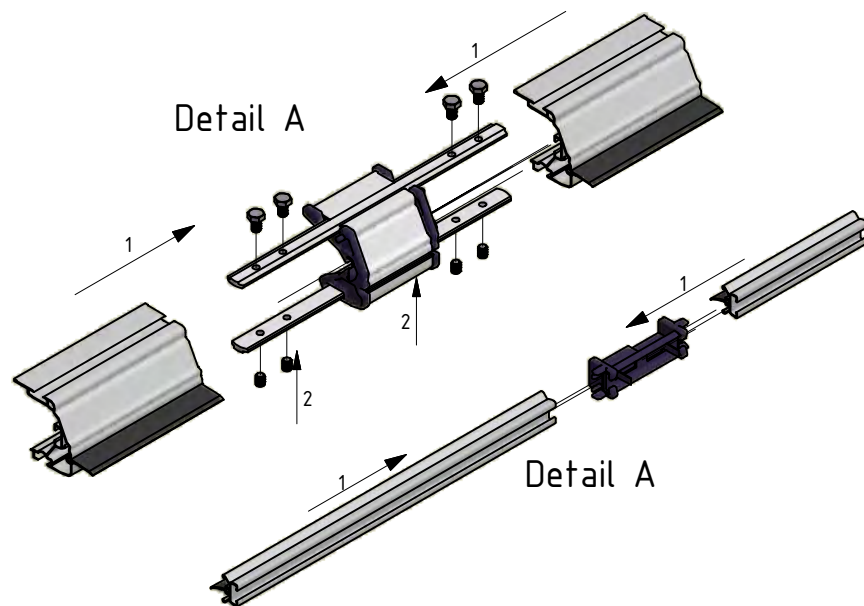
Coupling profile

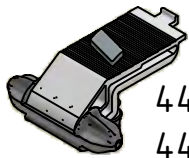
VAN DER VALK



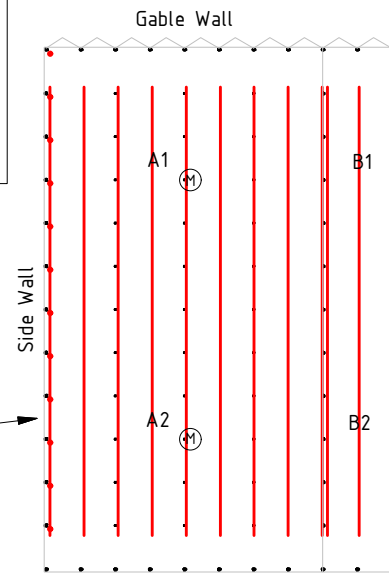
By the long truss profile ($\frac{3}{4}$) at the side walls/ section separations an extra truss clip is used to provide extra strength

Mount the KLI-MAX Slide first before coupling the profiles! (Page 23)



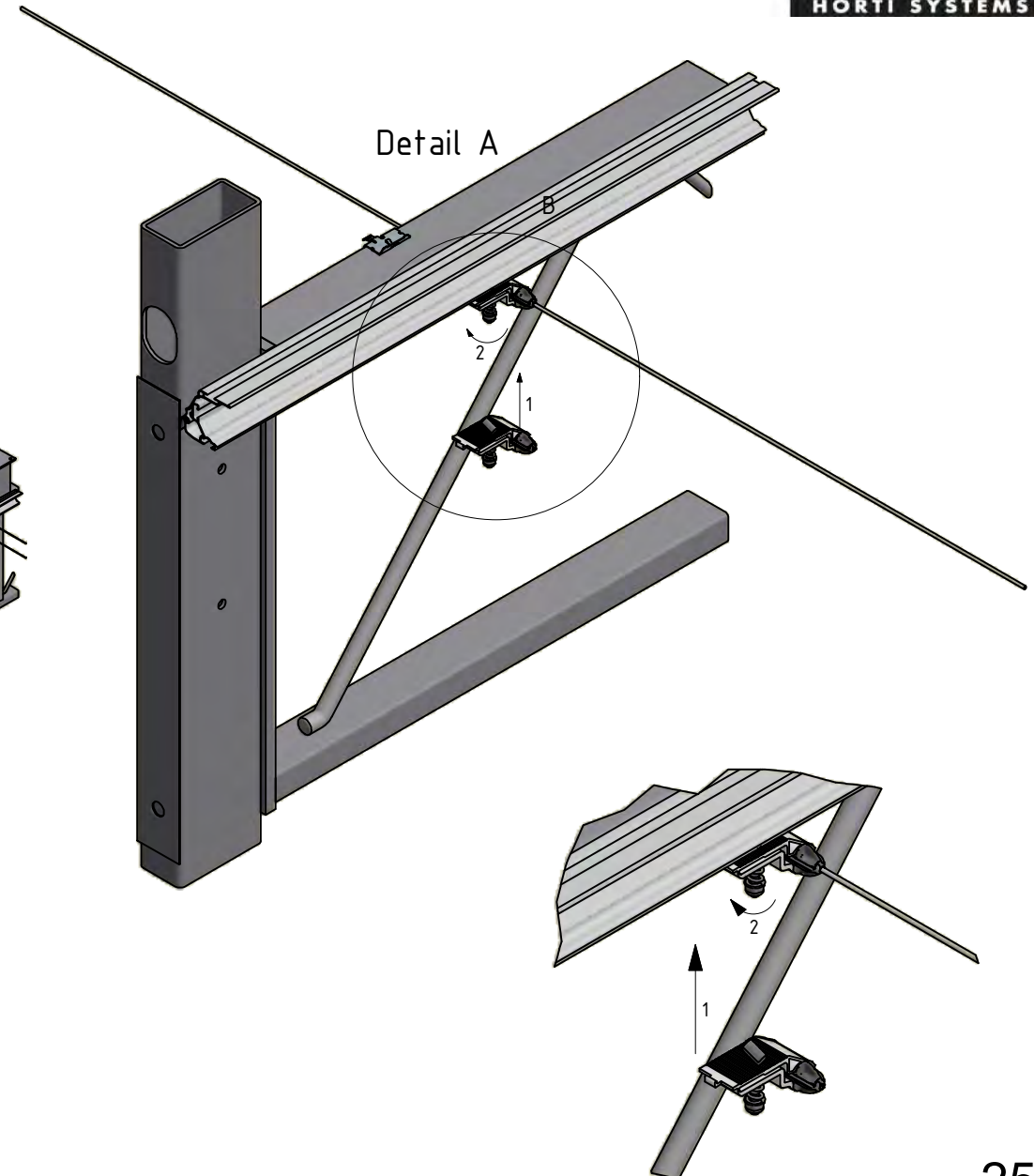


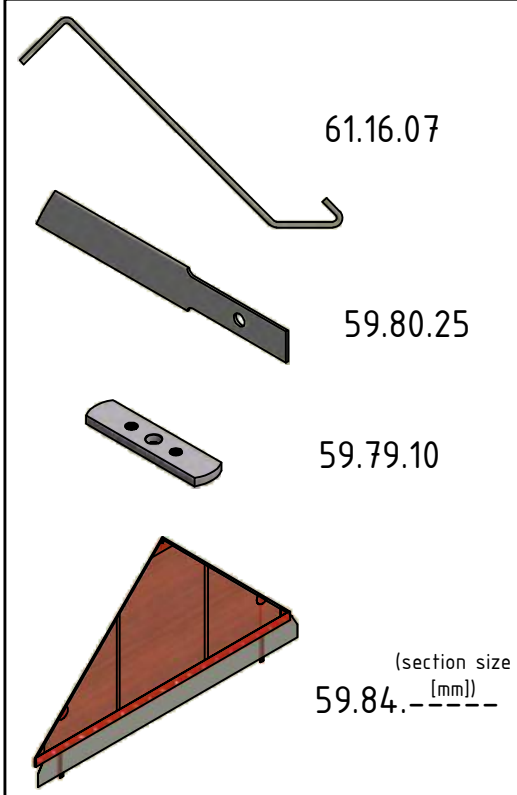
44.40.35 (Blank spring)
44.40.36 (Red spring)



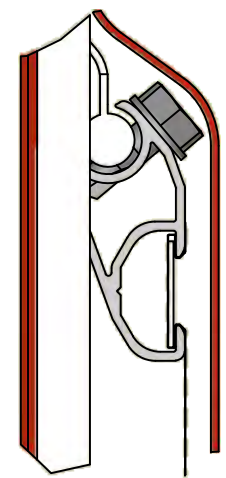
On the first row at the Side wall the KLI-MAX with the stronger spring is used.

Mounting the drive line

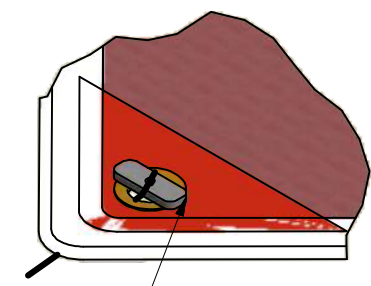




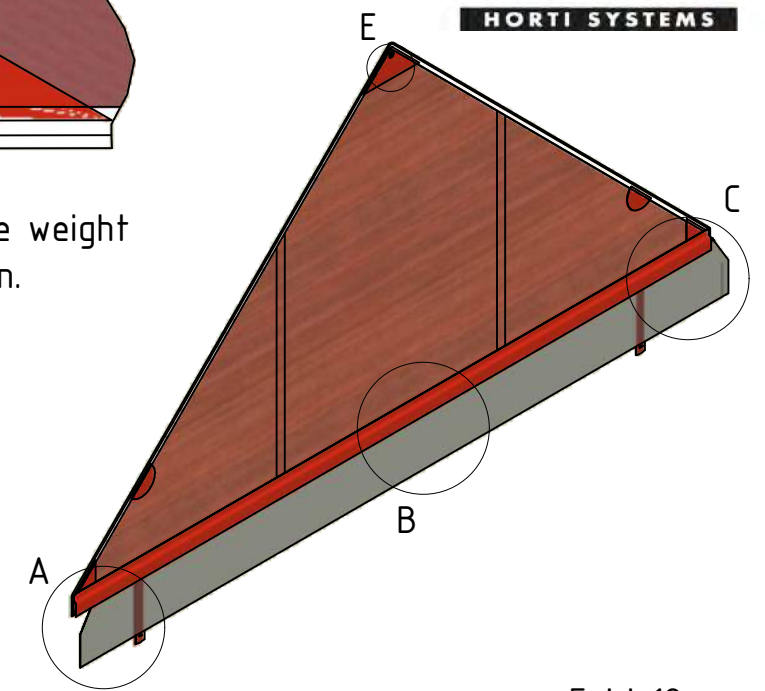
Detail D



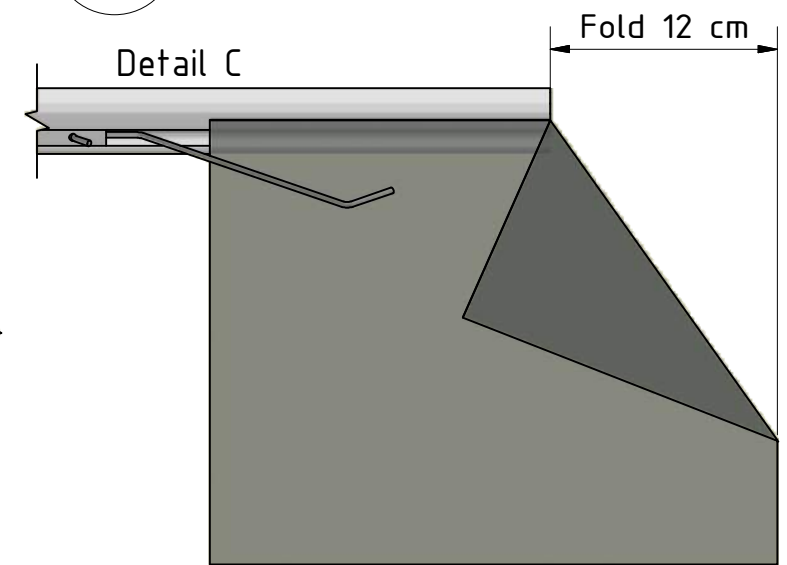
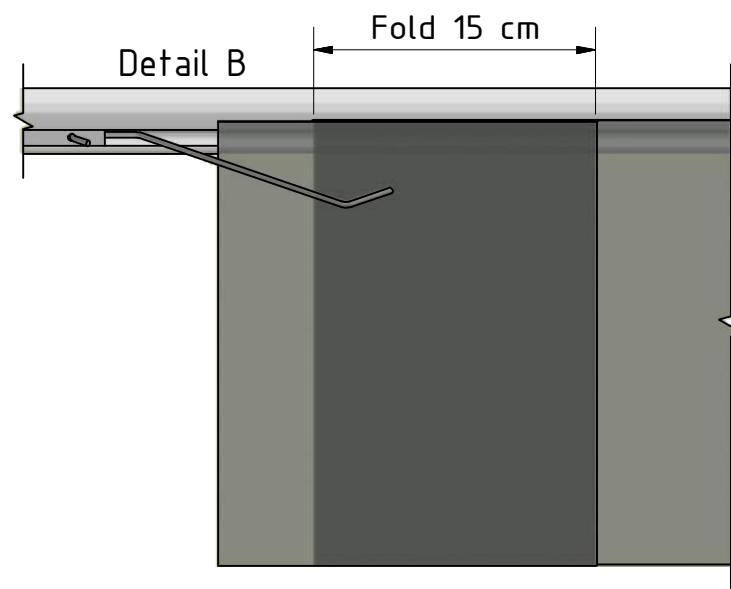
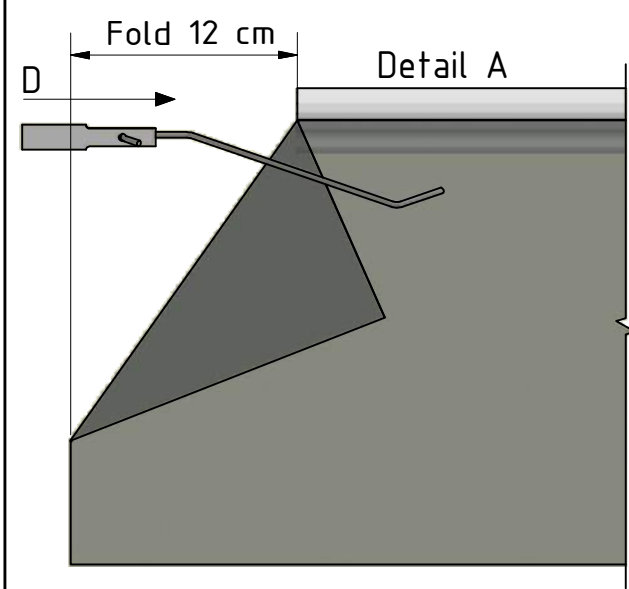
Detail E



Tie a rope to the the weight for pulling the screen.



Attach screen cloth to profile:





44.17.00



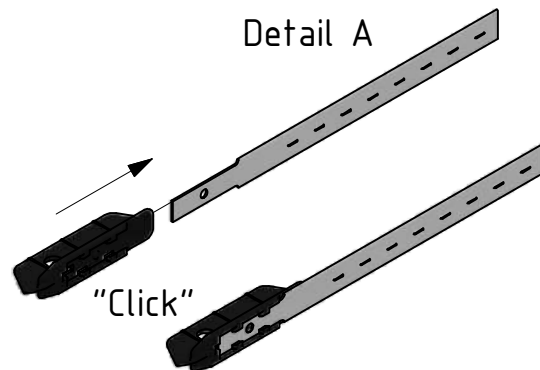
44.17.10



44.17.20

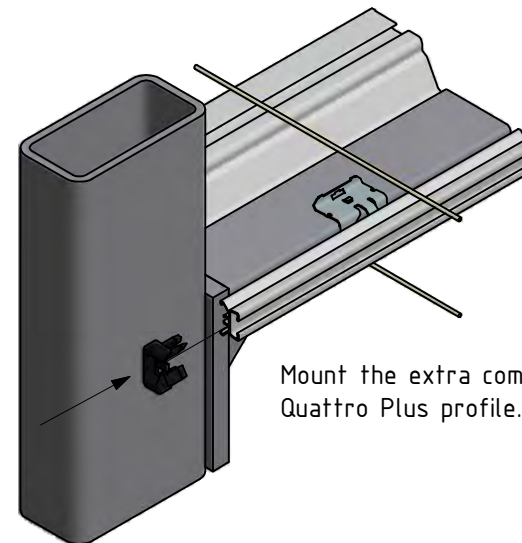
Mount screen in profiles

Detail A



Mount the front runner at the begin of the strip for a smooth conduction trough the profiles.

Detail A.2

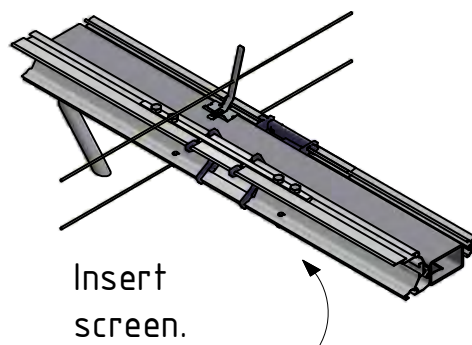


Mount the extra component in the Quattro Plus profile.

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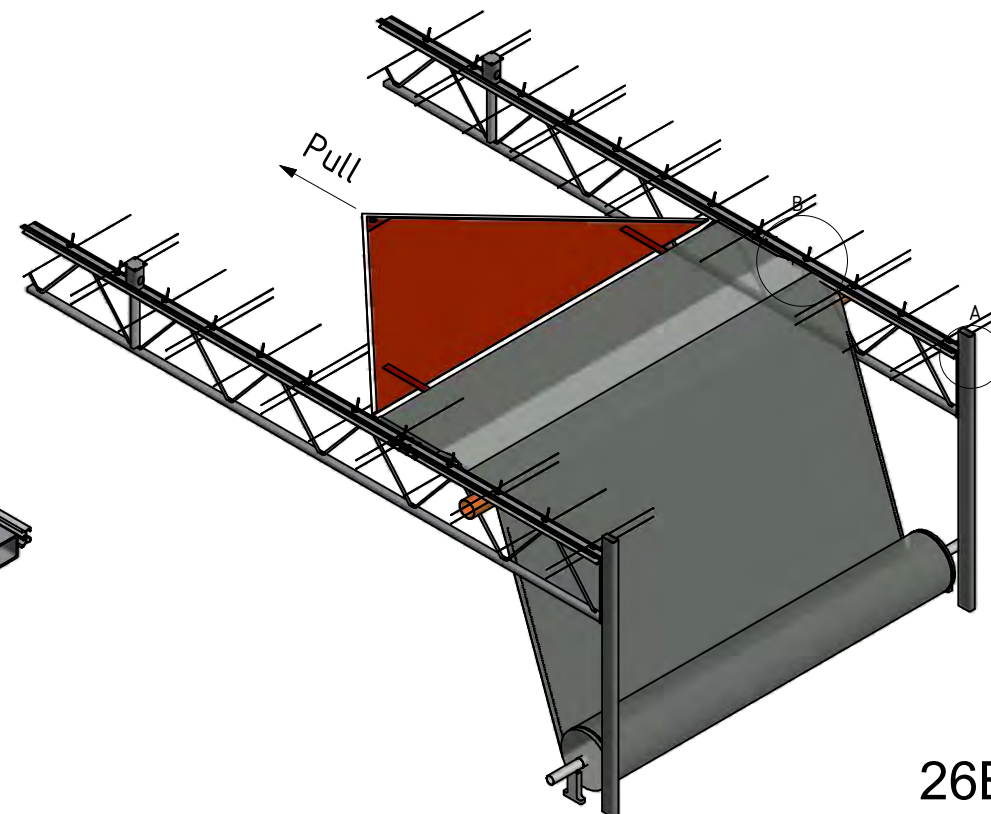
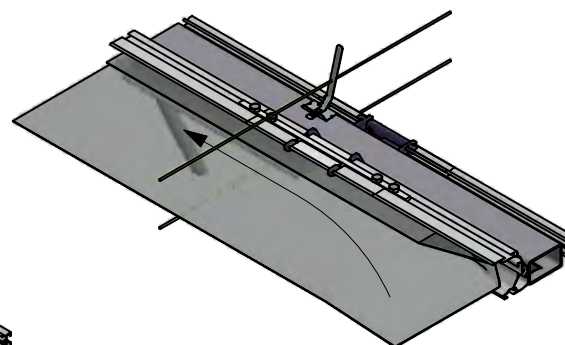


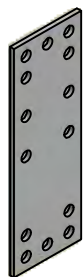
Detail B



Insert screen.

Detail B.2

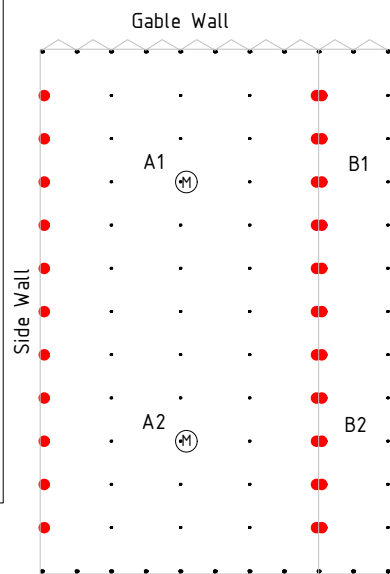




44.27.15



53.57.20

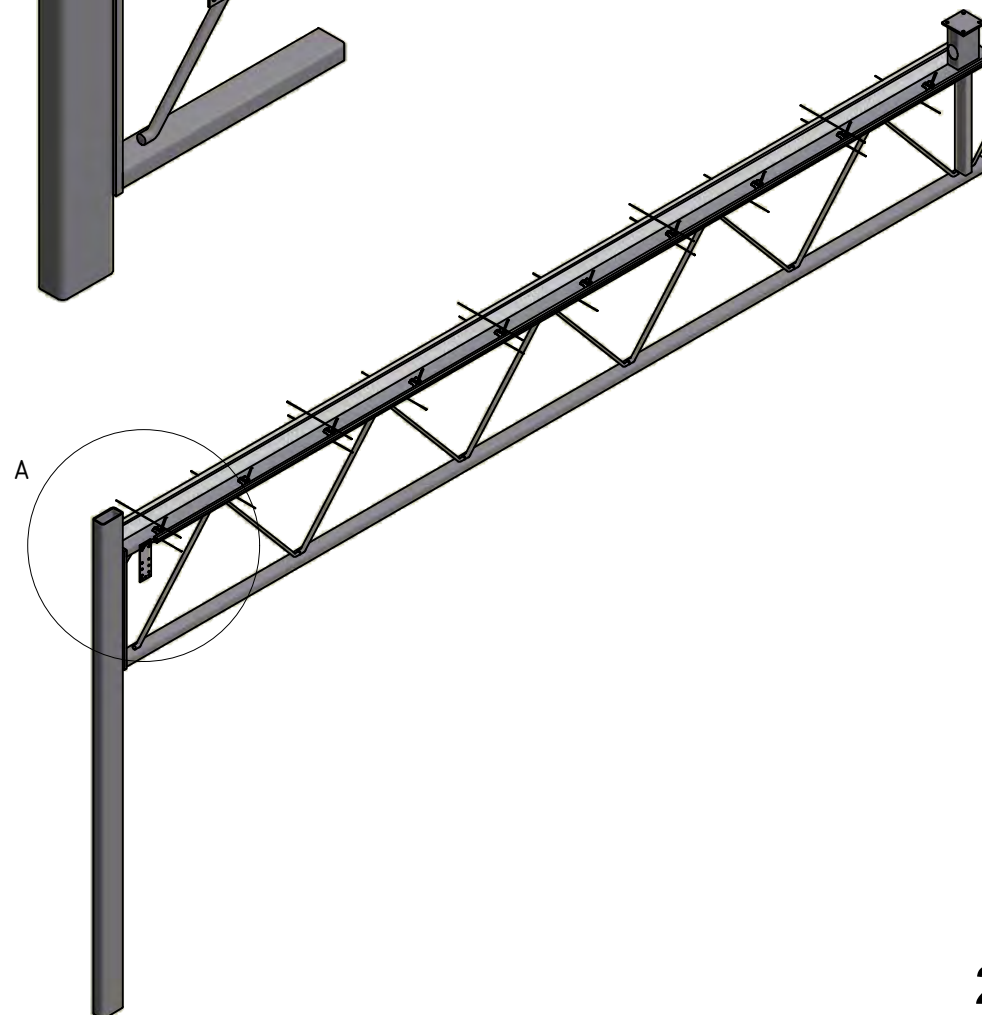
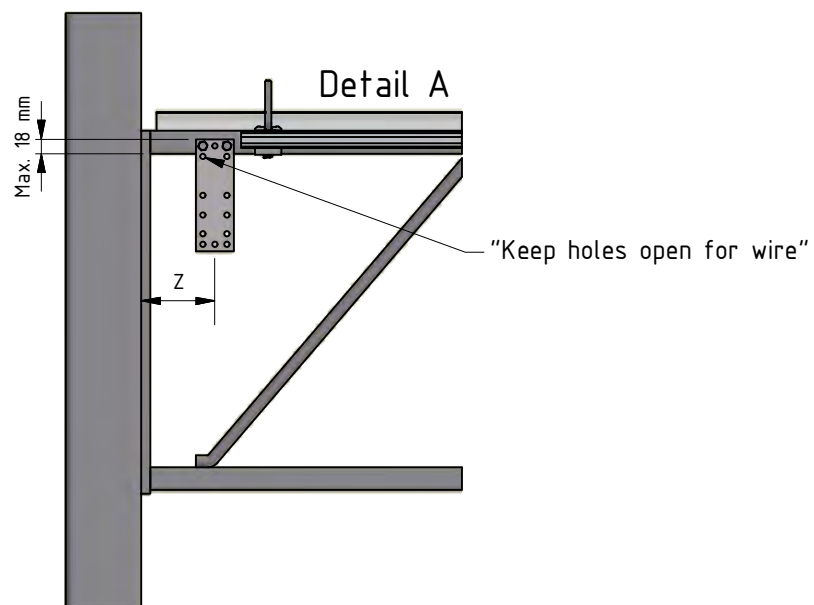
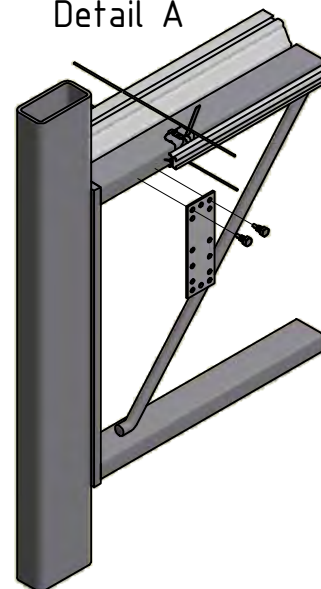


Overhang strip

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Detail A





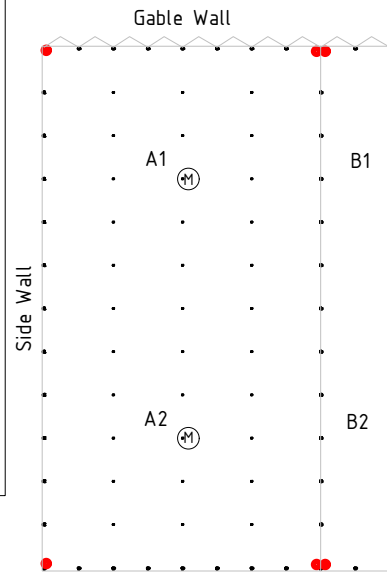
44.84.25



55.40.20



55.40.05

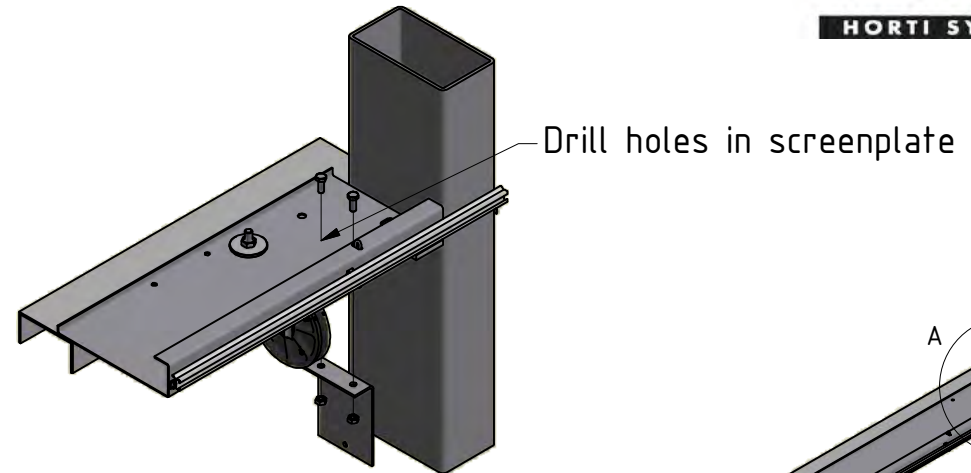


Clamping bracket for side wall

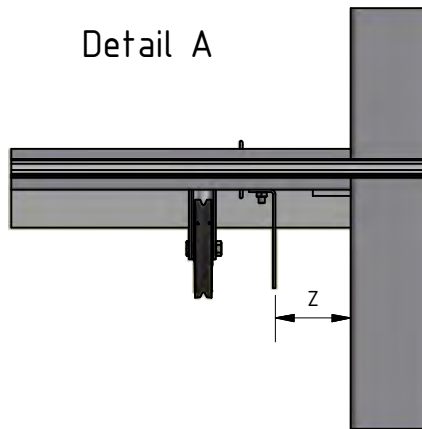
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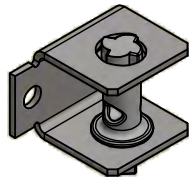


Detail A



Detail A





48.80.10

M6x16

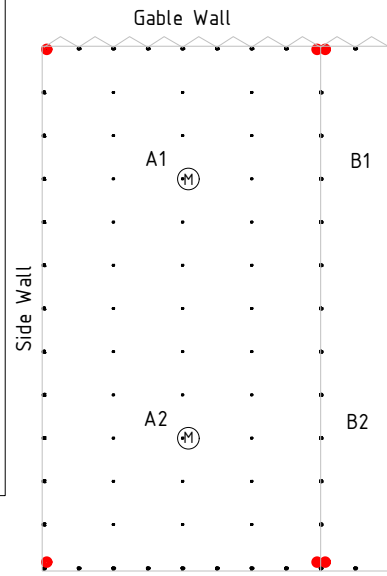


55.30.16

M6

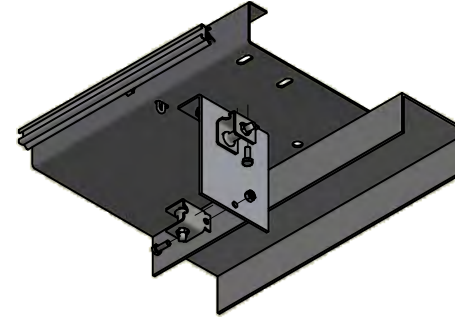


55.30.00



Wire strainer side wall

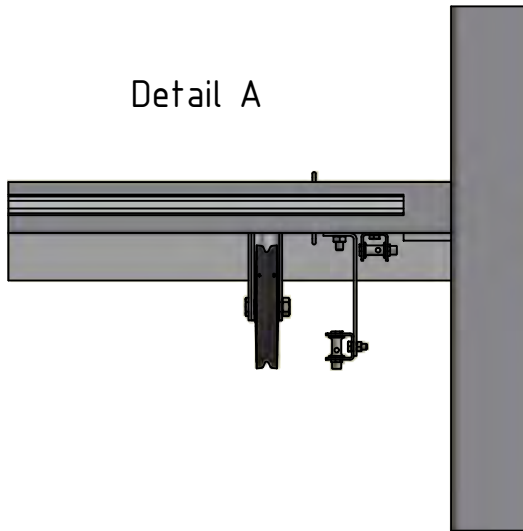
Detail A

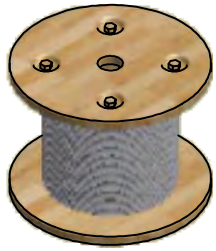


VAN DER VALK

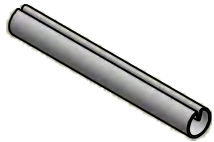


Detail A





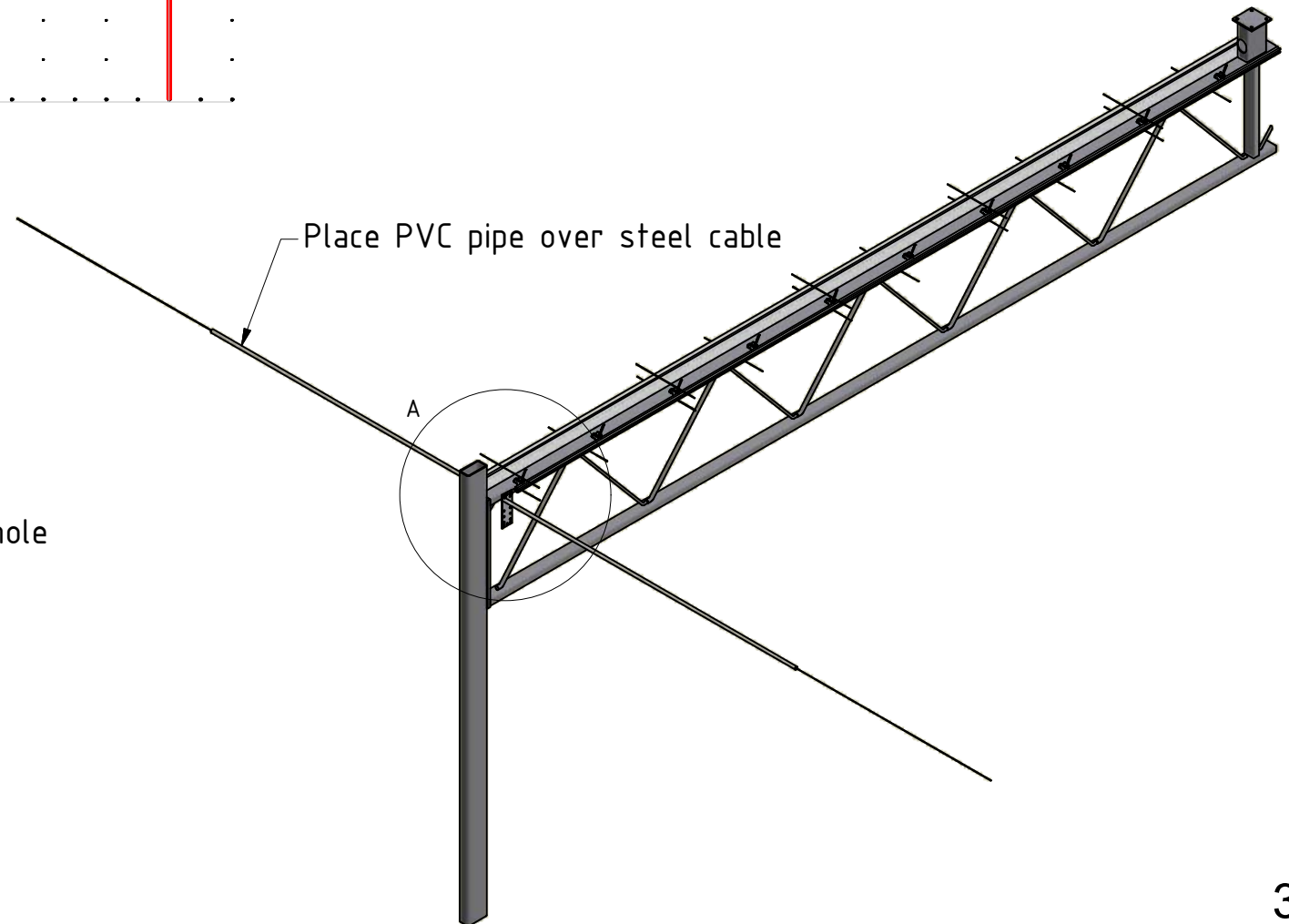
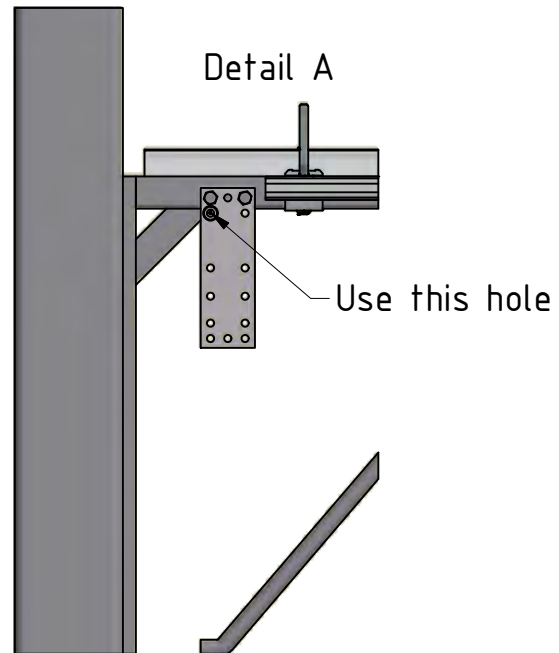
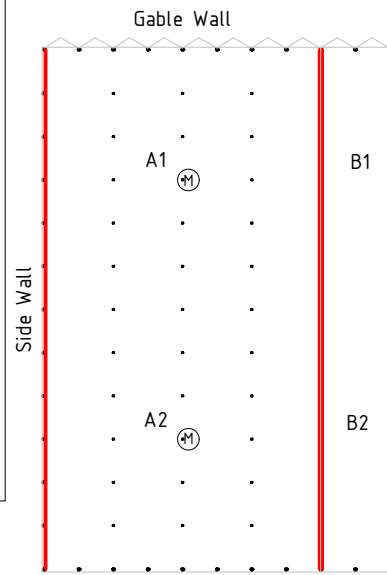
48.20.15

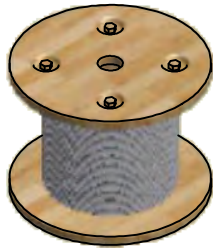


48.60. (L [mm])

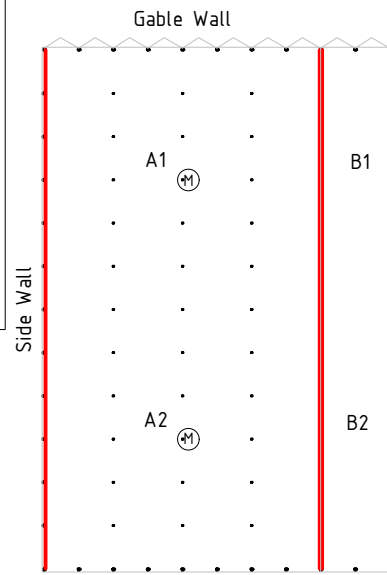
PVC Pipe white

VAN DER VALK



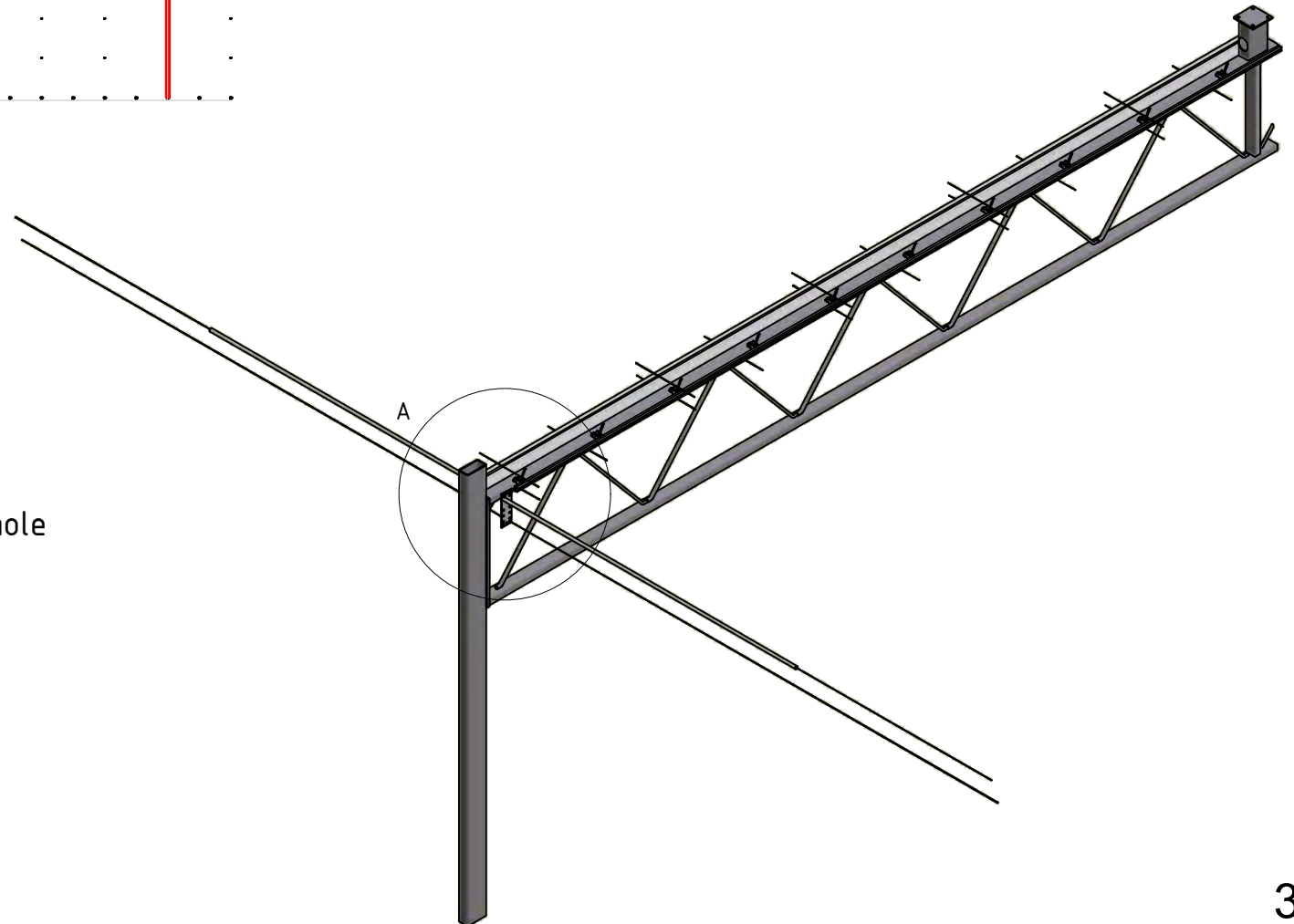
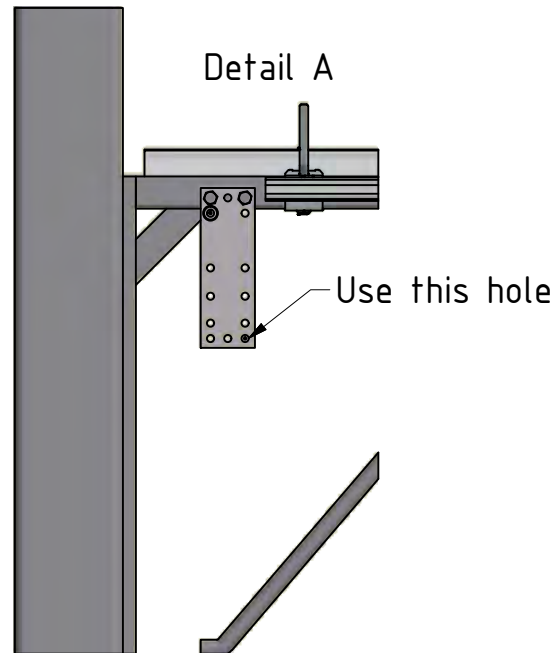


48.20.15



Steel cable cloth hang down

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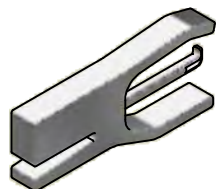
Fixed cloth side wall



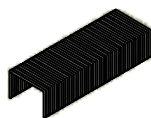
45.30.10



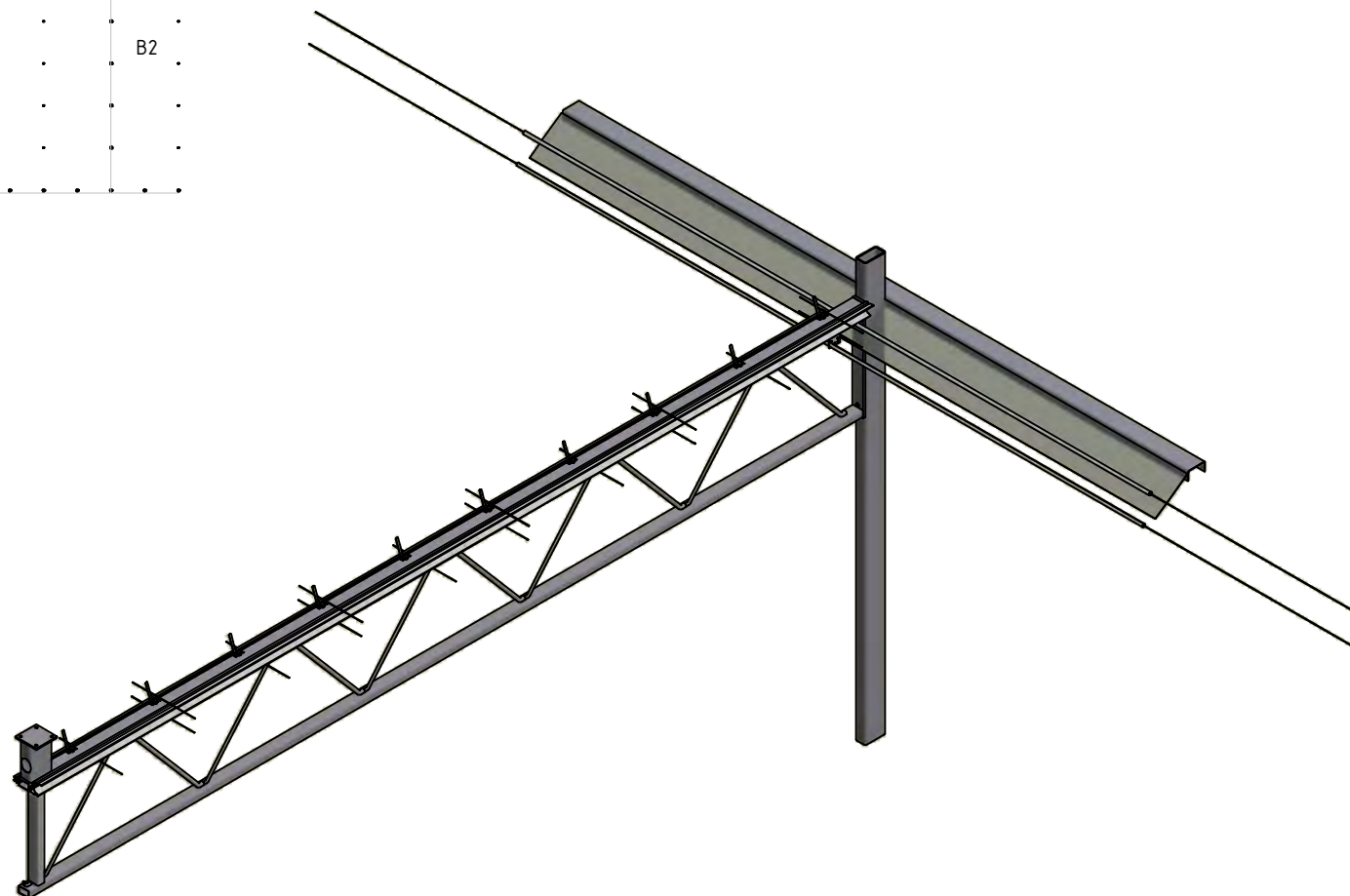
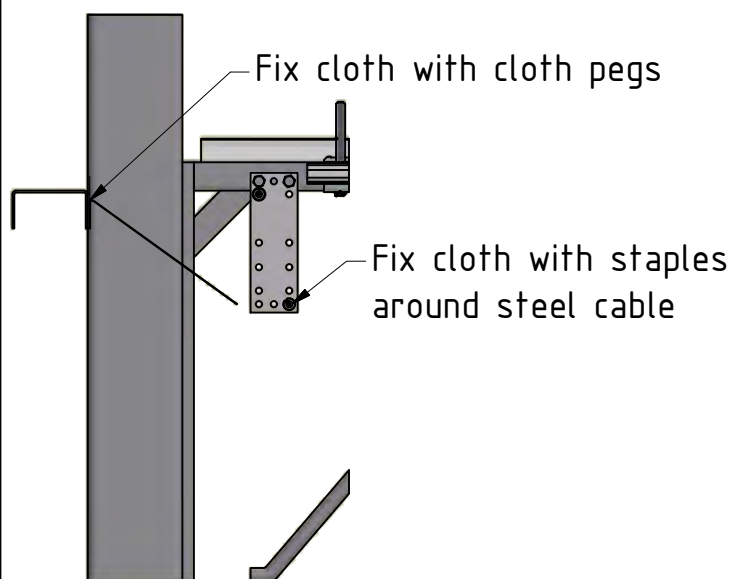
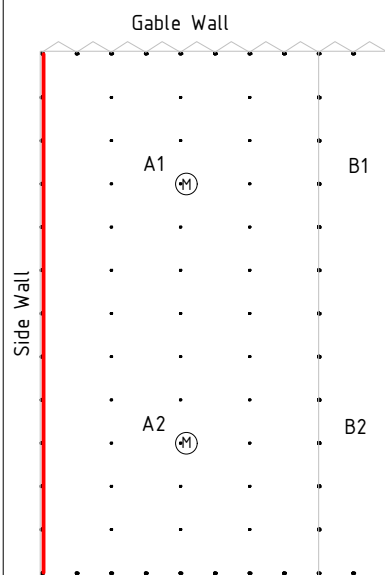
48.60. (L [mm])

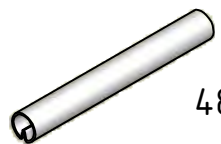


61.10.05

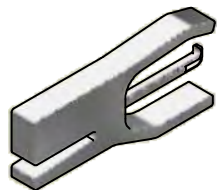


61.10.06

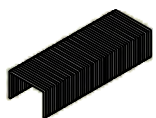




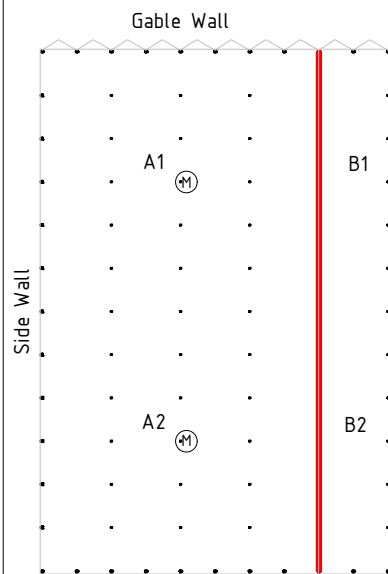
48.60. (L [mm])



61.10.05

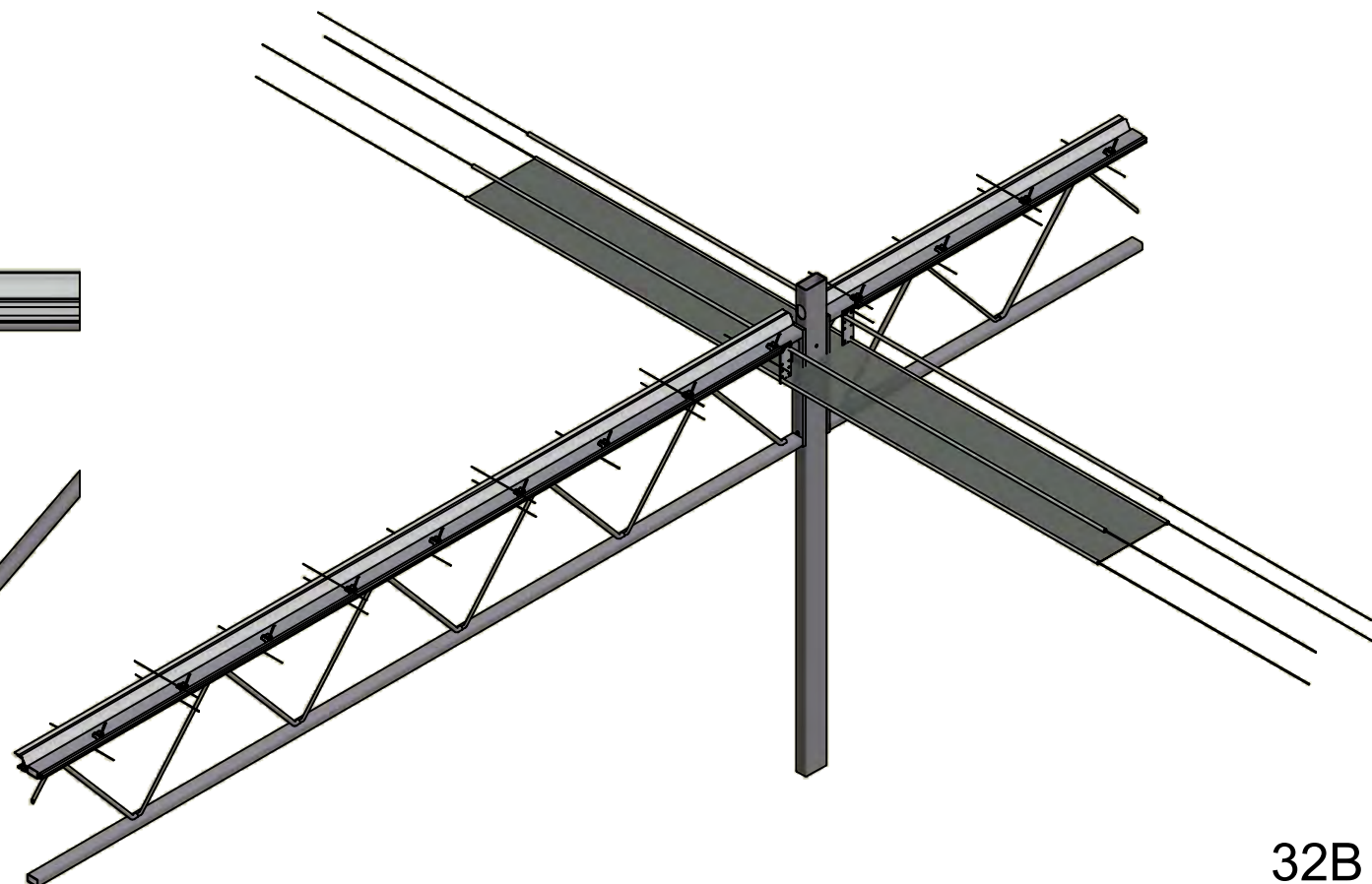
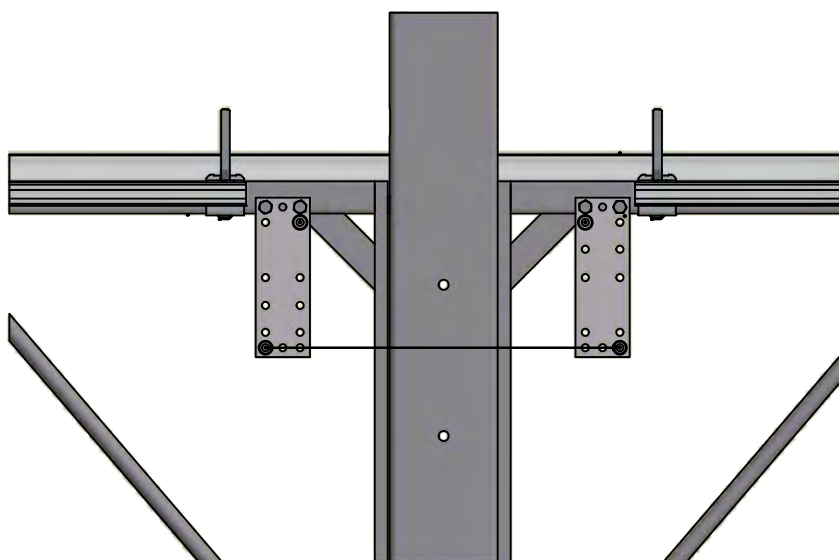


61.10.06



Fixed cloth at separation between two zones

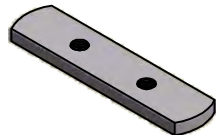
VAN DER VALK



32B



44.27.05



44.05.05

M6x10

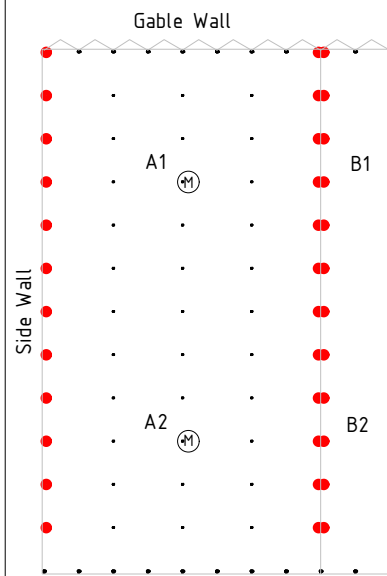


55.30.10

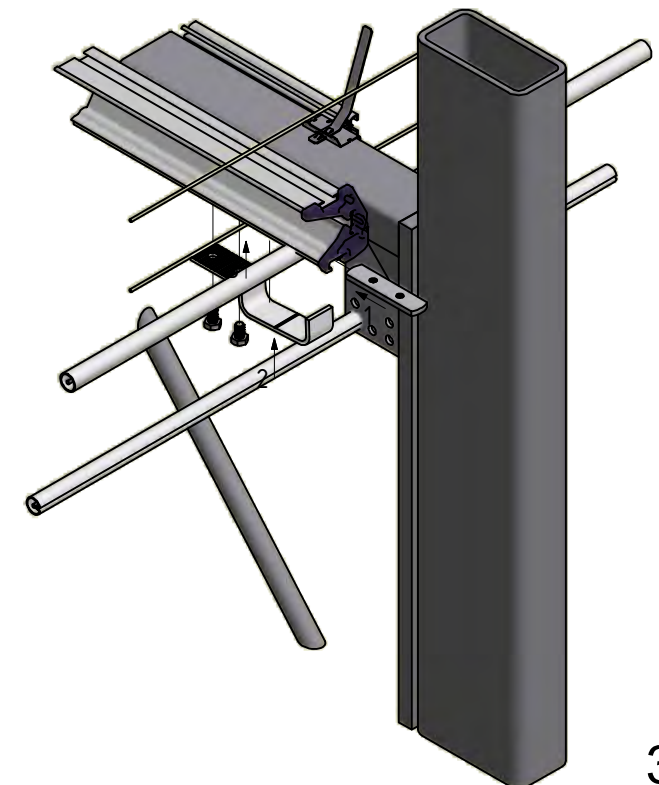
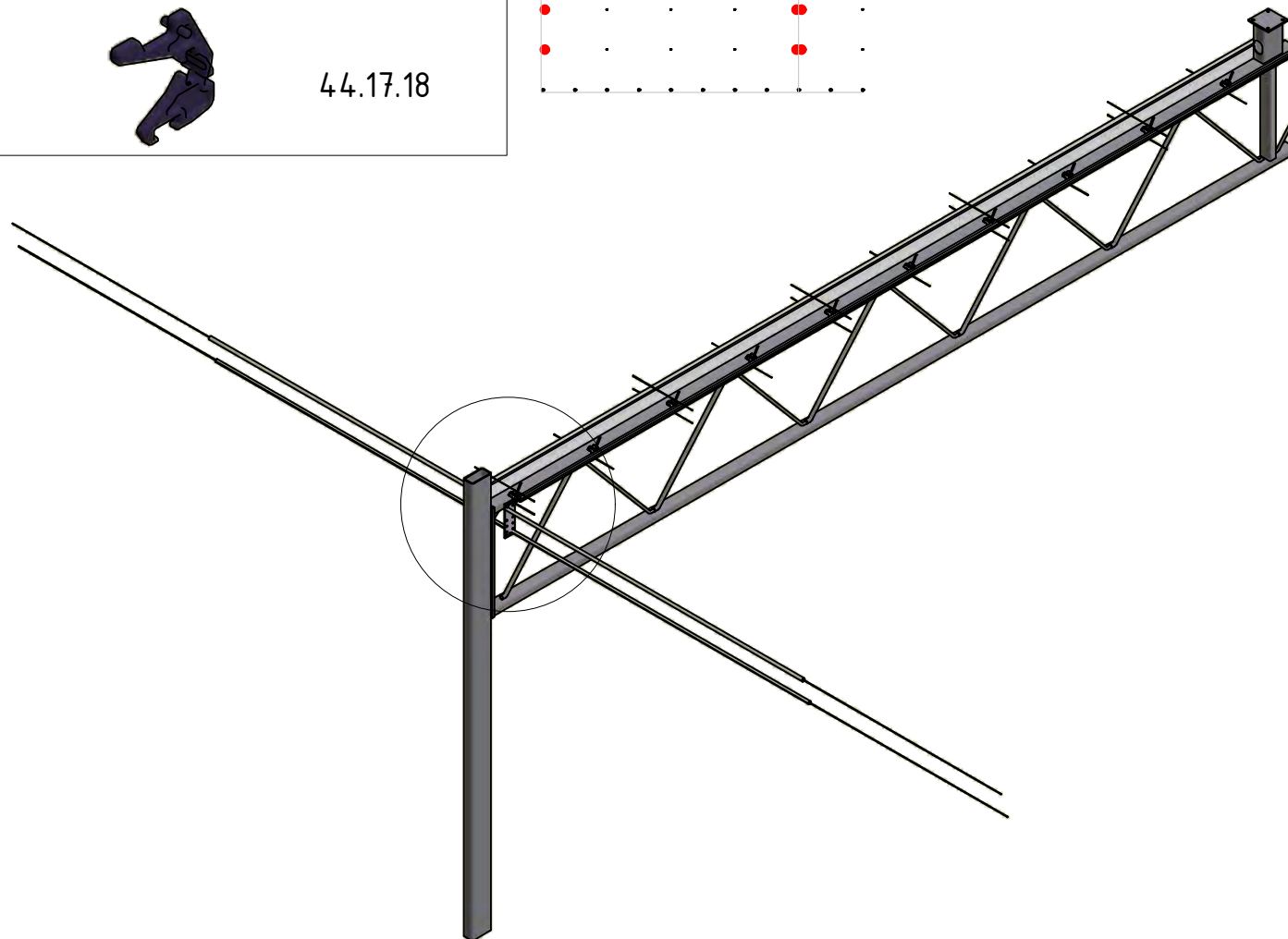


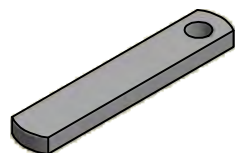
44.17.18

Screen guide



VAN DER VALK

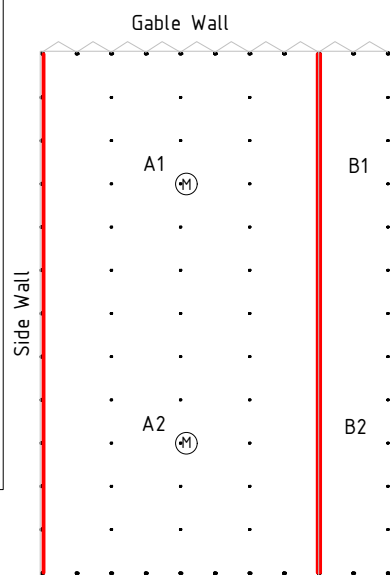




44.70.25

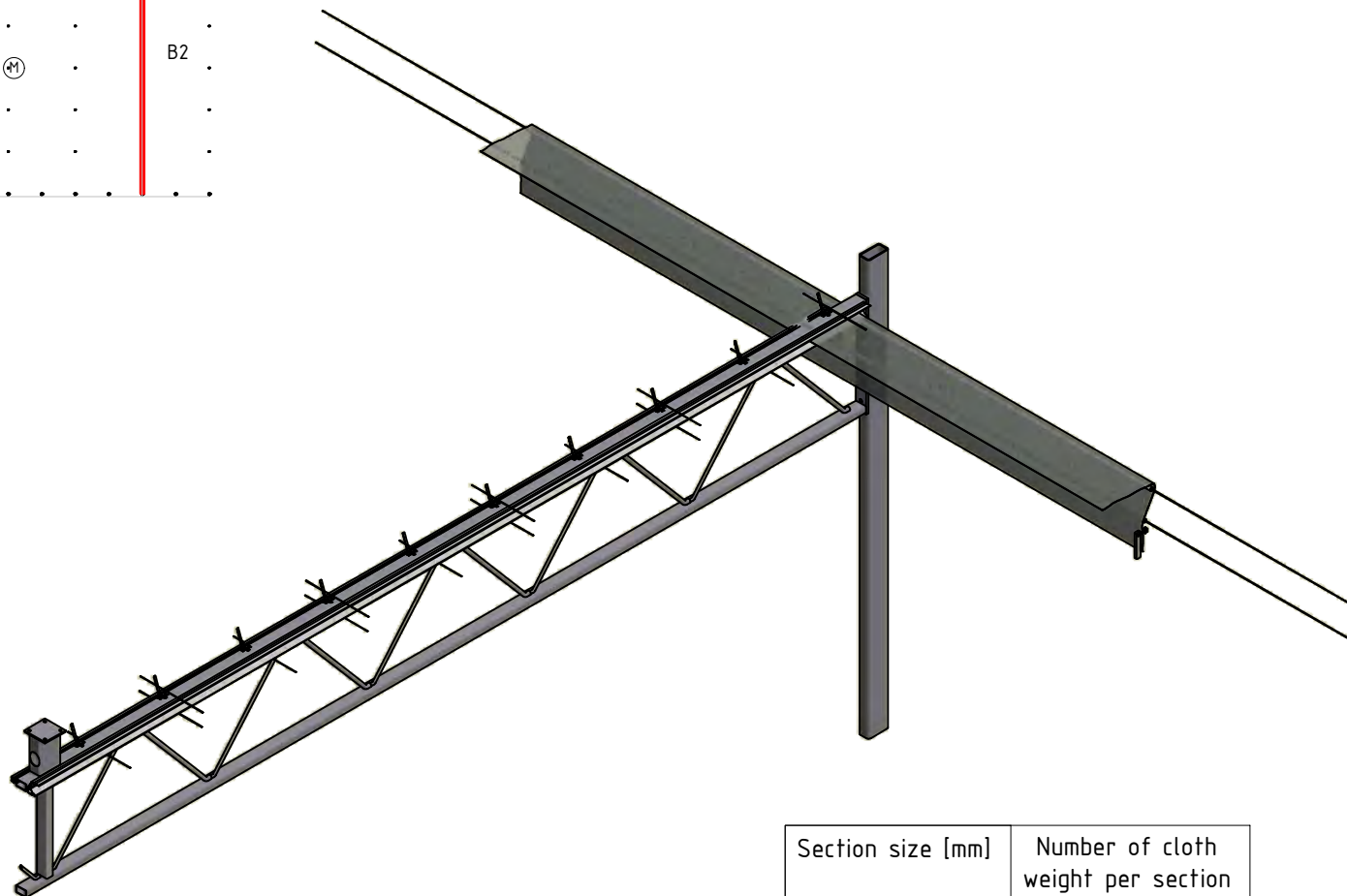
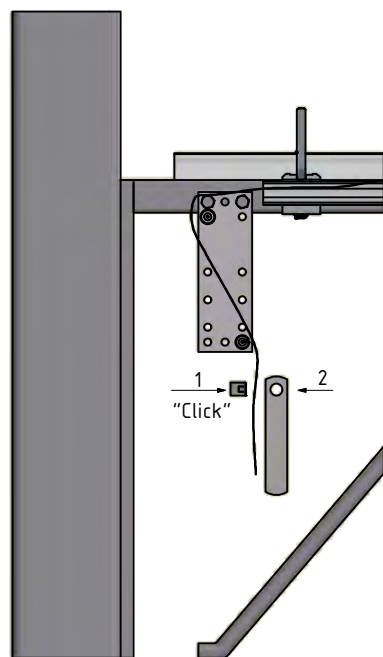


45.45.50



Cloth weight

VAN DER VALK



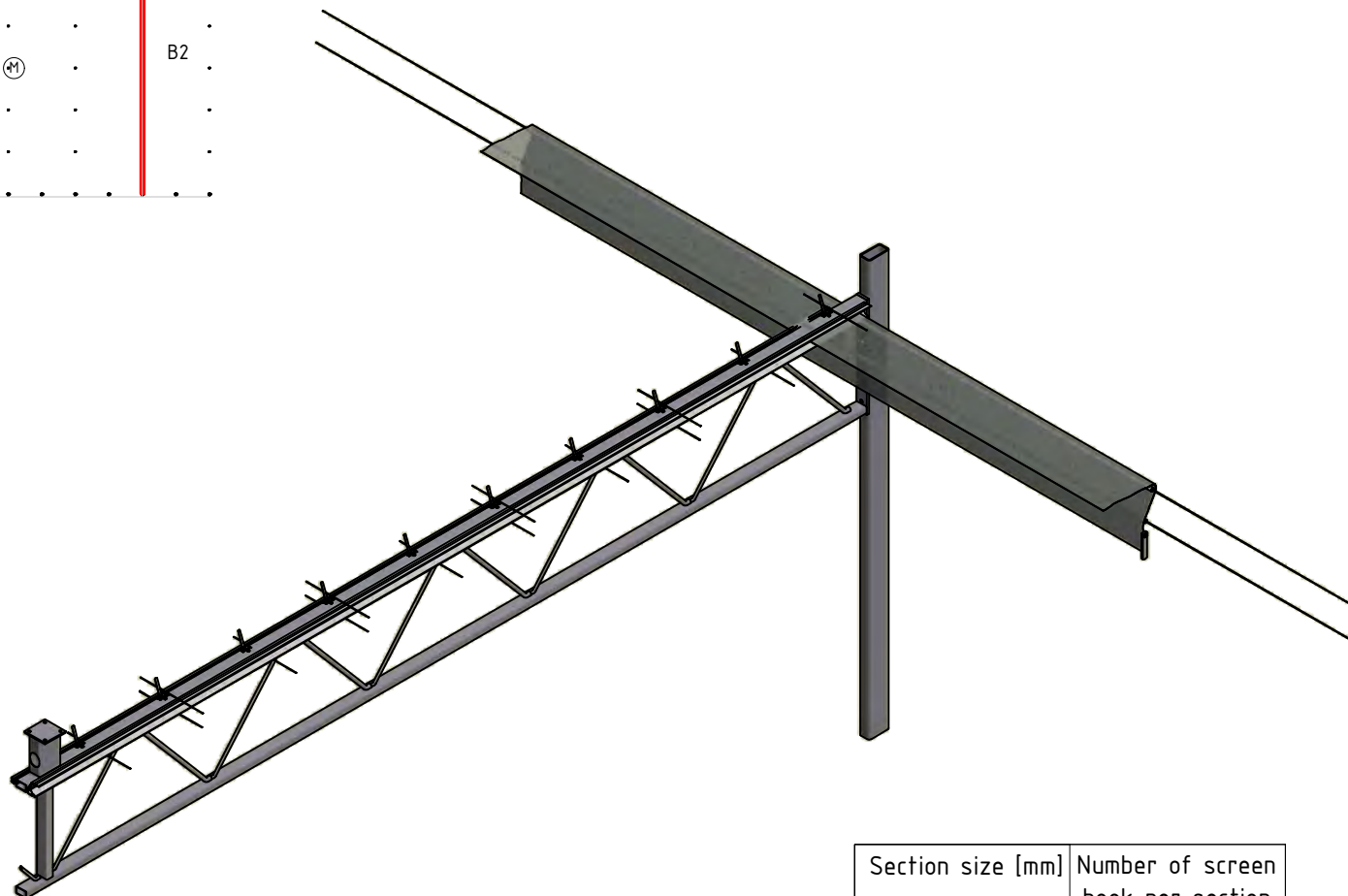
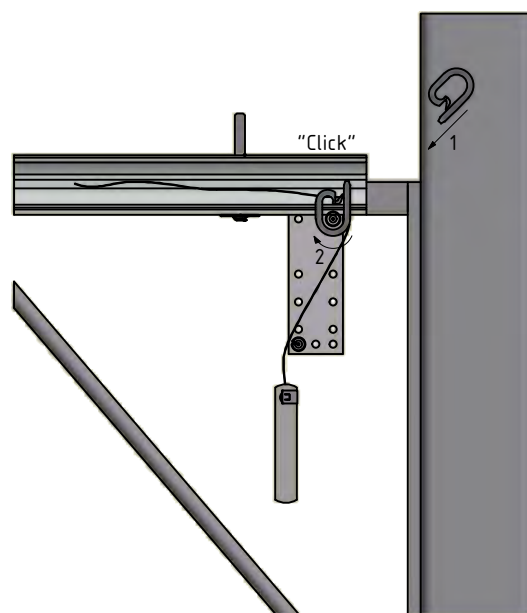
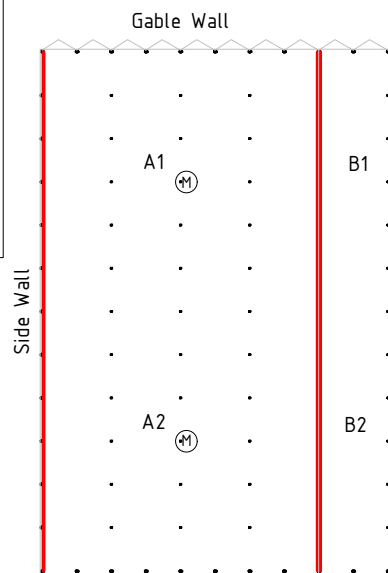
Section size [mm]	Number of cloth weight per section
3200	5
3658	5
4000	6
4500	7
5000	8



44.15.20

Screen hook

VAN DER VALK



Section size [mm]	Number of screen hook per section
3200	7
3658	7
4000	8
4500	9
5000	10

Van der Valk Horti Systems

Van der Valk Horti Systems has been a familiar name in the greenhouse industry for many years. In fact, we are the only specialised company that has completely dedicated itself to the development and production of vent-opening and screen mechanisms. That is why our systems can be found in so many greenhouses. Our high-quality components not only get your business moving, but more importantly, keep it moving.

Greenhouses are becoming increasingly larger and more complex. And consequently the thousands of components are increasingly less accessible for maintenance. You must be able to blindly trust these. That is why at Van der Valk Horti Systems we go to extreme lengths with each new product development.

The development of new products and systems is a core activity. Each component clearly sets itself apart with its own carefully considered details. Moreover our products are fully tested and approved before they arrive in your greenhouse. Van der Valk Horti Systems, your guarantee for operational continuity.



PLEASE CONTACT VAN DER VALK HORTI SYSTEMS OR YOUR
GREENHOUSE BUILDER/INSTALLER FOR MORE INFORMATION.