ALUMERO AS 2.1

Installation on trapezoidal metal sheet

802440 TBB 2.1 (L=400) – trap mini rail 400

802441 TBB 2.1 S (L=250) – trap mini rail 250

Best installation way to fit with the module requirements of clamping position
TBB 2.1 could be placed anywhere on the trap metal sheet and pv-modules could be installed in portrait or landscape exact on the TBB 2.1 acc. to the module specification

Trapezodial sheet bridge 2.1, L=400mm
Option: Trapezodial sheet bridge 2.1 S, L=250mm

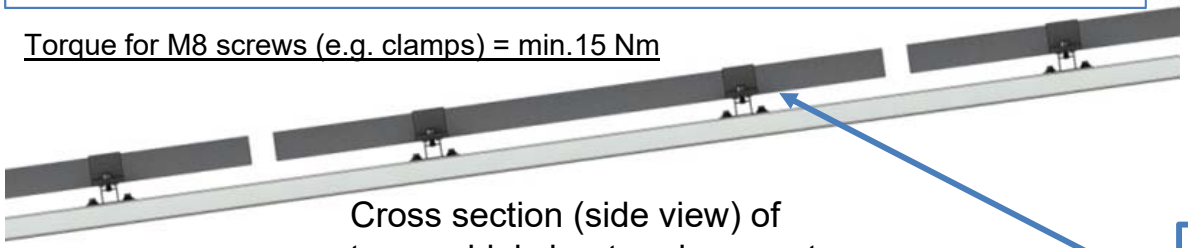
Standard installation: modules vertical (portrait)

- TBB 2.1 for top corrugation distance 100 – 333 mm
- TBB 2.1 S for top corrugation distance 100 – 207 mm

- Max. length of modules in row: 12 m
- Min. distance of clamps to end of bridge: 20 mm
- Each bridge has to be placed and fixed on two top corrugations
- Fixation of bridge to metal sheet with 4 thin sheet metal screws

Option: modules horizontal (landscape)

Torque for M8 screws (e.g. clamps) = min.15 Nm



Cross section (side view) of
trapezoidal sheet and pv-system

Fixation of pv-modules in trapezoidal sheet bridge 2.1 with premounted mid- and endclamps

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ALUMERO AS 2.1

Installation on trapezoidal metal sheet with TBK 2.1 T (trapezoidal short rail 2.1 T)

802442 TBK 2.1 T (L=100) – trap nano rail 100

Modules could only be installed in landscape and fixed on the long module frame side

TBK 2.1 T has to be placed on the top crown of the trap metal sheet.
The clamping position of the pv-module is depending on the top crown distance of the trap metal sheet and could differ from the pv-module specification.

Standard installation: modules horizontal (landscape)

Fixation of pv-modules in trapezoidal short rail 2.1 T with premounted mid- and endclamps

Trapezoidal short rail 2.1 T
L = 100 mm

- Max. length of modules in column: 12 m
- Min. distance of clamps to end of short rail TBK 2.1 T: 20 mm
- Each short rail has to be placed and fixed in the middle of the top corrugation
- Fixation of short rail to metal sheet with 2 thin sheet metal screws

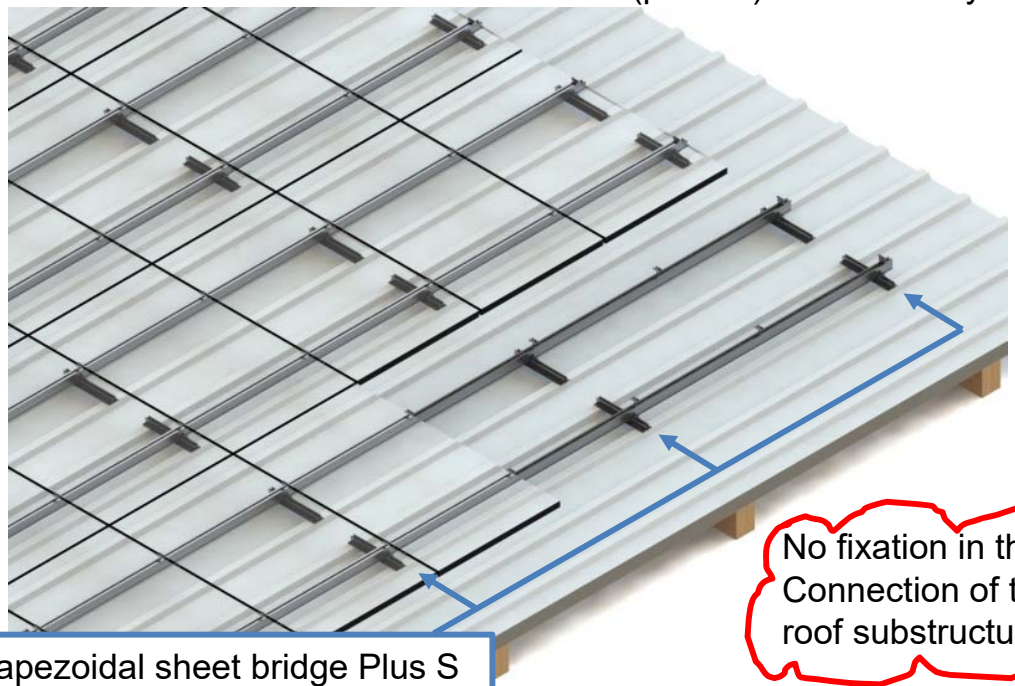
Torque for M8 screws (e.g. clamps) = min.15 Nm

ALUMERO AS 2.1

Installation on sandwich panel

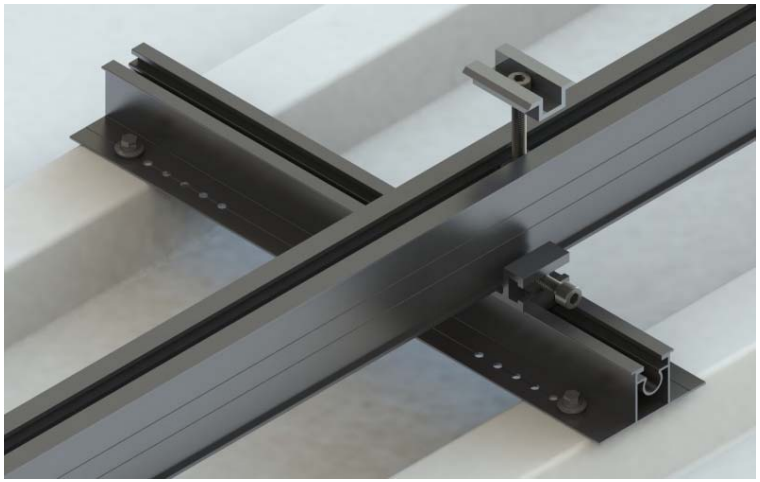
802449 TBB Plus S (L=400) – trap bridge Plus S 400

Standard installation: modules vertical (portrait) on double layer system



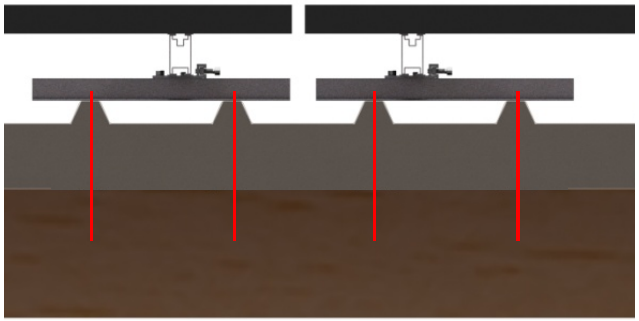
Trapezoidal sheet bridge Plus S has to be placed above purlin

Torque for M8 screws (e.g. clamps) = min.15 Nm

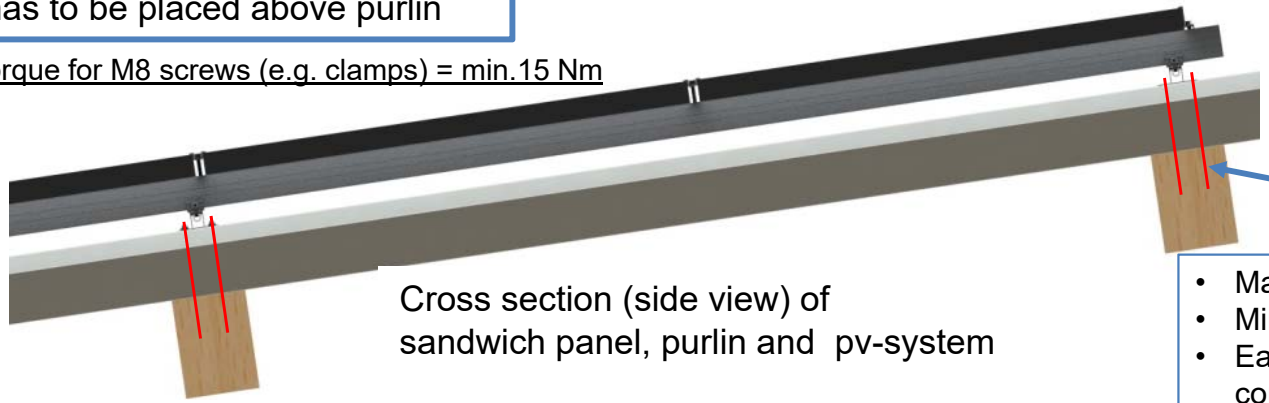


Trapezoidal sheet bridge Plus S, Cross connector 2.1, Profile TP65 or TP95, module clamp

No fixation in the sandwich panel !!!
Connection of the pv-system to the roof substructure (purlin) !!!



Cross section (view from bottom) of sandwich panel, purlin and pv-system



Cross section (side view) of sandwich panel, purlin and pv-system

Trapezoidal sheet bridge Plus S has to be fixed with long self-drilling screws in purlin

- Max. length of modules in column: 12 m
- Min. distance of cross connector to end of bridge: 20 mm
- Each bridge has to be placed and fixed on two top corrugations
- Min. distance of clamps to end of rail: 20 mm

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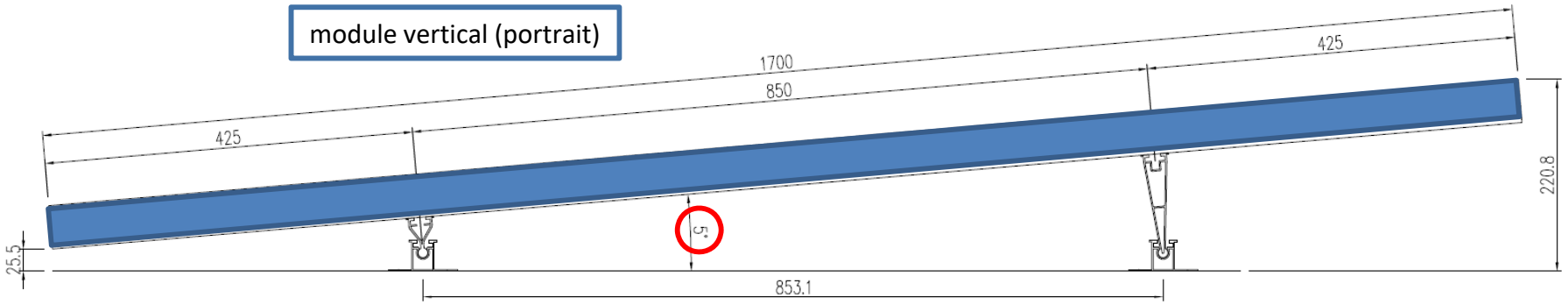
Trapezoidal elevation system Plus

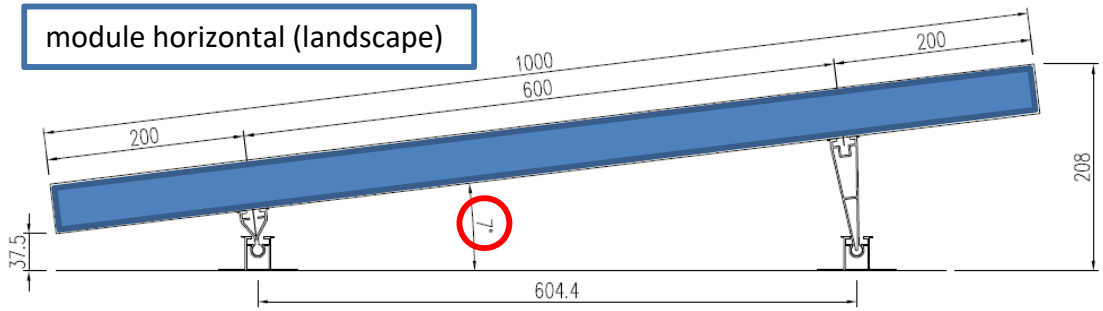
802445 TBB Plus (L=400)

Installation only valid on trapezoidal metal sheet

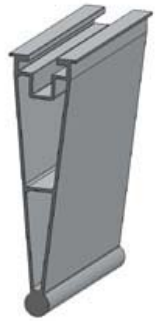
module vertical (portrait)



module horizontal (landscape)

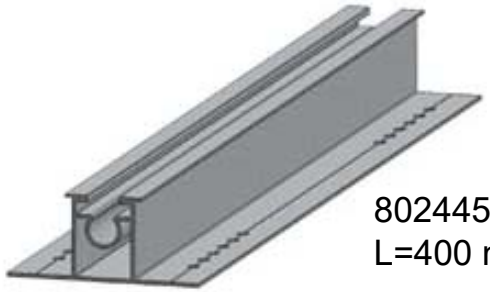


802446 Front part Plus



802447 Back part Plus

802448 Securing Set Plus



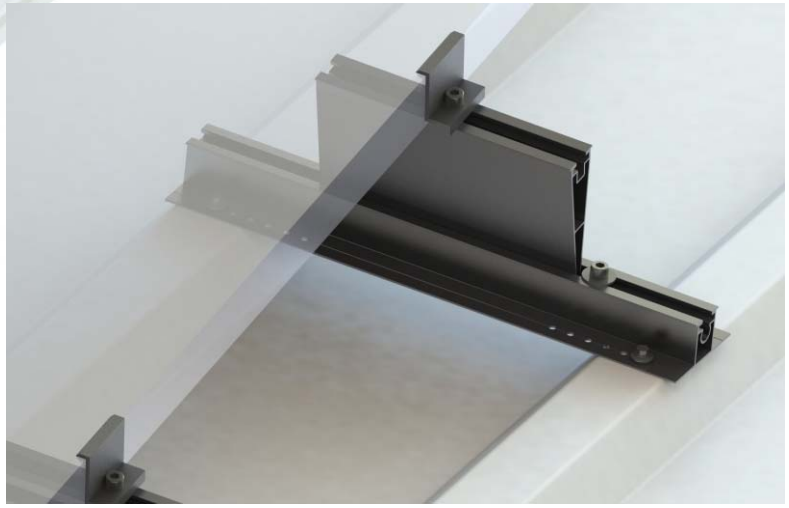
802445 Trapezoidal sheet bridge Plus, L=400 mm

ALUMERO AS 2.1

Trapezoidal elevation system Plus

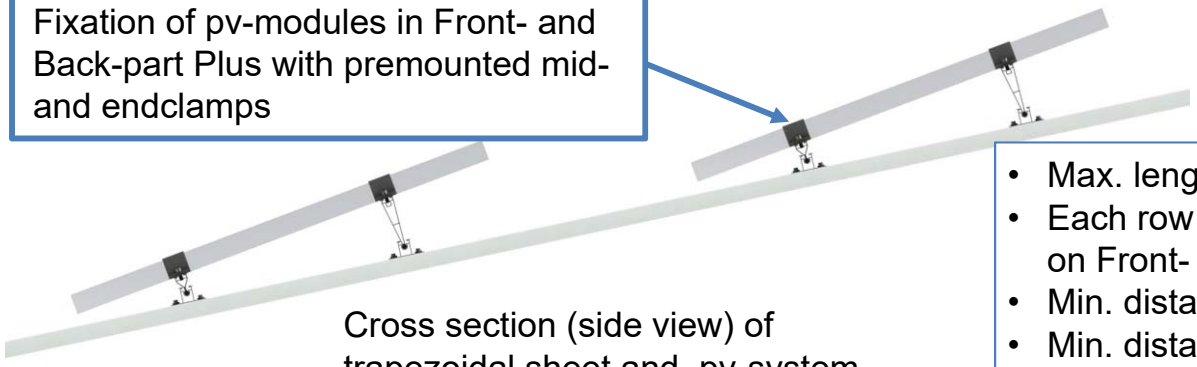
Installation only valid on trapezoidal metal sheet

Mounting option 1: Modules horizontal (landscape)
Elevation of modules by 7°



Trapezoidal sheet bridge Plus,
Back part Plus, Securing Set Plus

Fixation of pv-modules in Front- and Back-part Plus with premounted mid- and endclamps



Cross section (side view) of trapezoidal sheet and pv-system

Torque for M8 screws (e.g. clamps) = min.15 Nm

- Max. length of modules in row: 12 m
- Each row has to be secured at its ends by Securing Set Plus on Front- and Back-part
- Min. distance of clamps to end of elevation parts: 20 mm
- Min. distance of elevation parts to end of bridge: 20 mm
- Each bridge has to be placed and fixed on two top corrugations
- Fixation of bridge to metal sheet with 4 thin sheet metal screws

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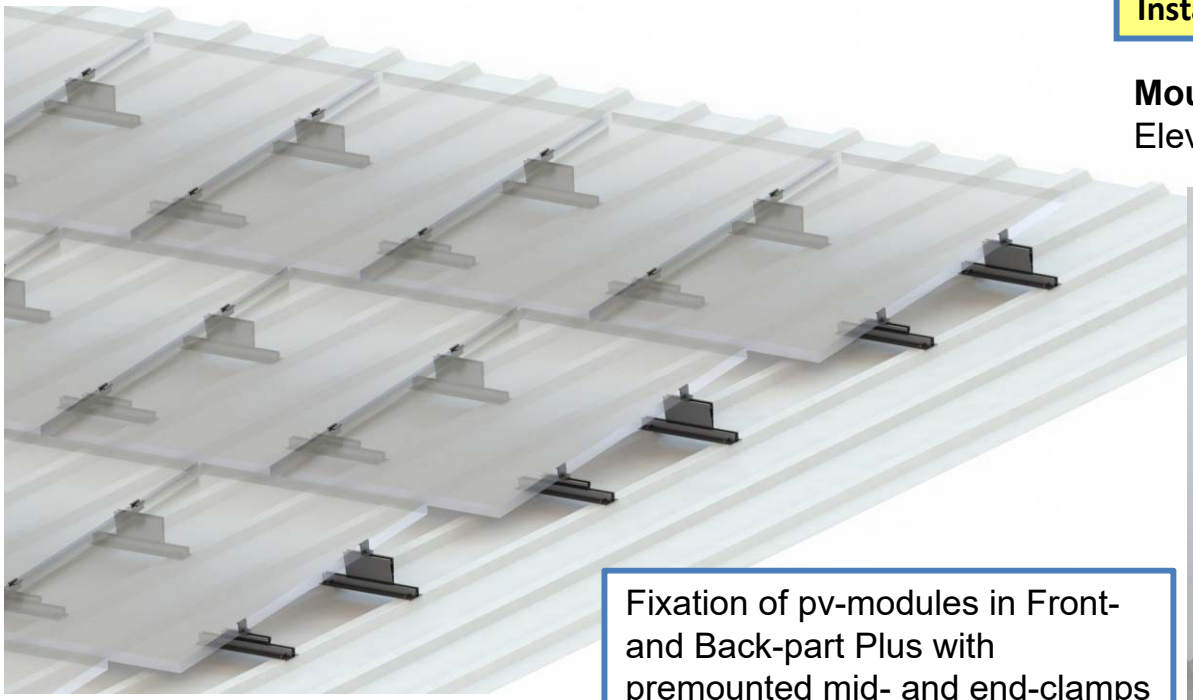
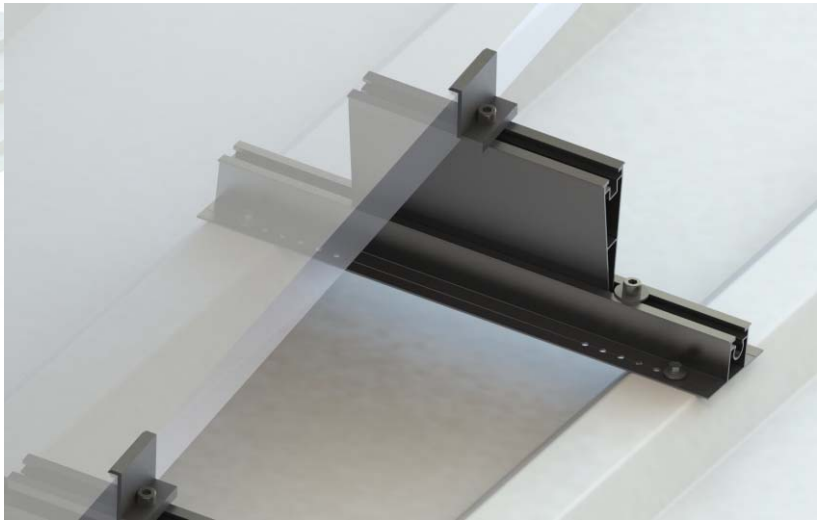
Trapezoidal elevation system Plus



Installation only valid on trapezoidal metal sheet

Mounting option 2: Modules vertical (portrait)
Elevation of modules by 5°



Trapezoidal sheet bridge Plus,
Back part Plus, Securing Set Plus

Fixation of pv-modules in Front- and Back-part Plus with premounted mid- and end-clamps

Cross section (side view) of trapezoidal sheet and pv-system

- Max. length of modules in row: 12 m
- Each row has to be secured at its ends by Securing Set Plus on Front- and Back-part
- Min. distance of clamps to end of elevation parts: 20 mm
- Min. distance of elevation parts to end of bridge: 20 mm
- Each bridge has to be placed and fixed on two top corrugations
- Fixation of bridge to metal sheet with 4 thin sheet metal screws

Torque for M8 screws (e.g. clamps) = min.15 Nm

Alumero Systematic Solutions, Dipl.-Ing. Tilman Elsner

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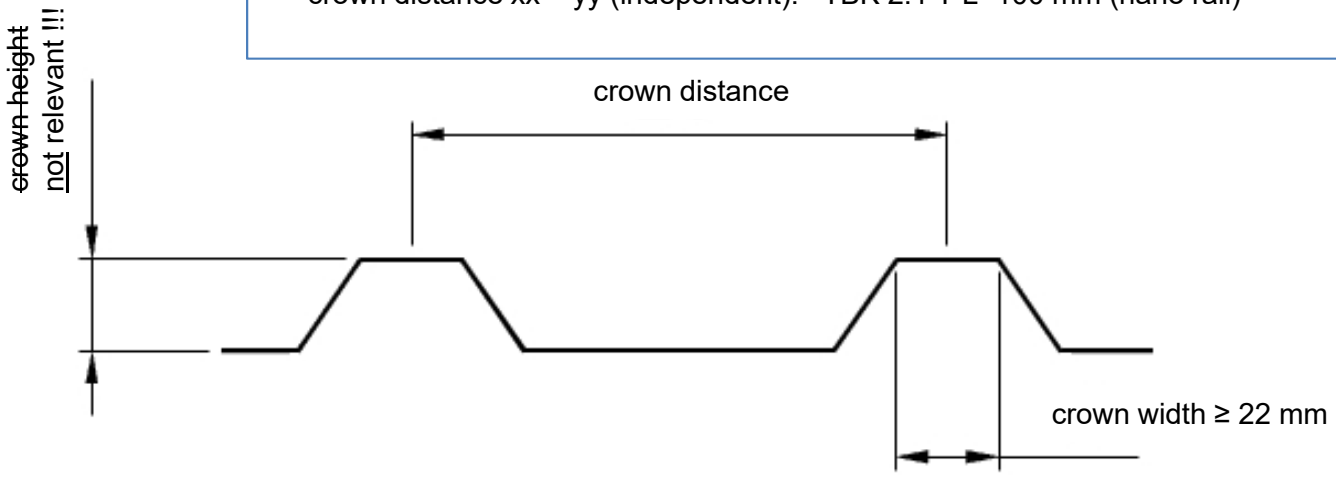
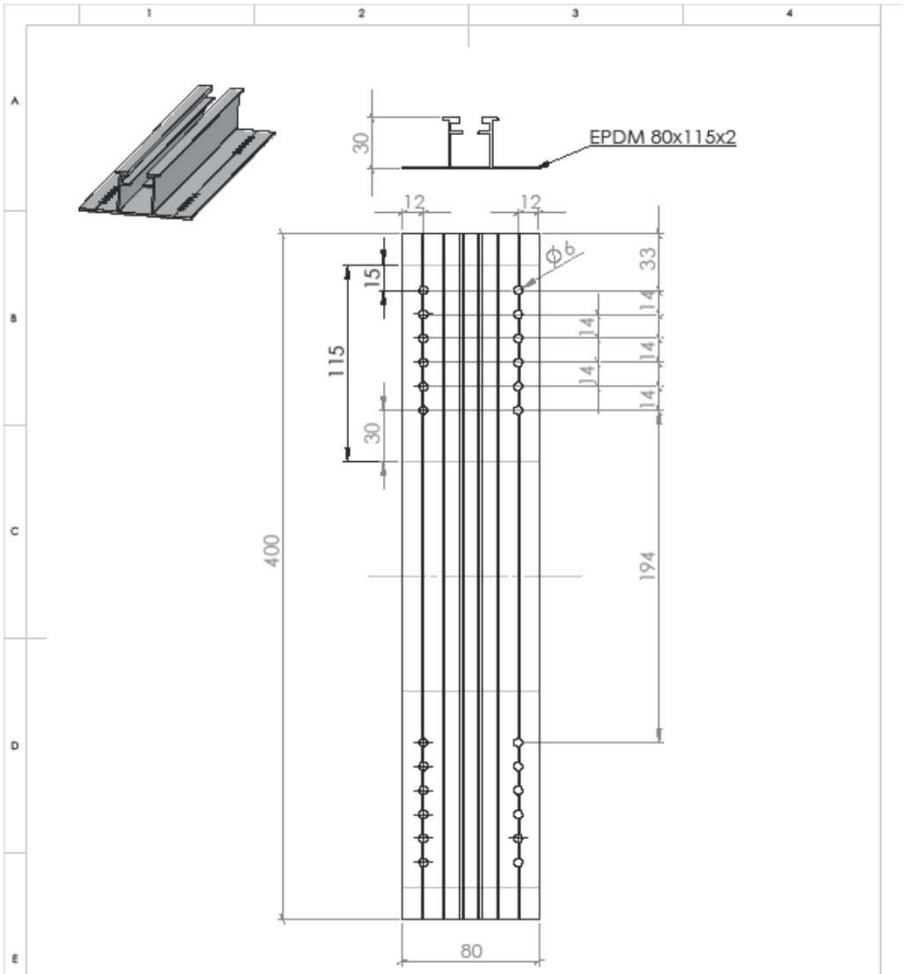
General requirements to install the trap components on trap metal sheets:

- The crown width should be min. 22 mm for all trap components.
  For easy installation the best fit starts with 25 mm crown width.
- The crown distance is only relevant for the selection of the trap mini-rail TBB 2.1 S L=250mm or TBB 2.1 L=400mm.
- The trap nano rail TBK 2.1 T L=100mm could be install independent of the crown distance
- The crown height is not relevant for the fixation of the nano rail (TBK 2.1 T L=100mm) and the other trap mini-rails (TBB 2.1 L=400mm/L=250mm, TBB Plus L=400mm, TBB Plus S L=400mm)

- crown distance 100 – 333 mm: TBB 2.1 L=400 mm (trap mini rail 400), TBB Plus (L=400 mm), TBB Plus S (L=400 mm)
- crown distance 100 – 207 mm: TBB 2.1 S L=250 mm (trap mini rail 250)
- crown distance xx – yy (independent): TBK 2.1 T L=100 mm (nano rail)



Trap mini rail – L=400 mm
Alumero Product No. 802440
Alumero Art. No. 17101
Title: Trapezoidal bridge 2.1 (TBB 2.1)



Inkl. 4xBohrschraube mit Gummidichtung 5,5x25 Edelstahl (800649-1)

Uwagi/Bemerkungen:
Ausführungsklasse: EXC3 nach EN1090
Klasa Wykoniania: EXC3 wg EN 1090

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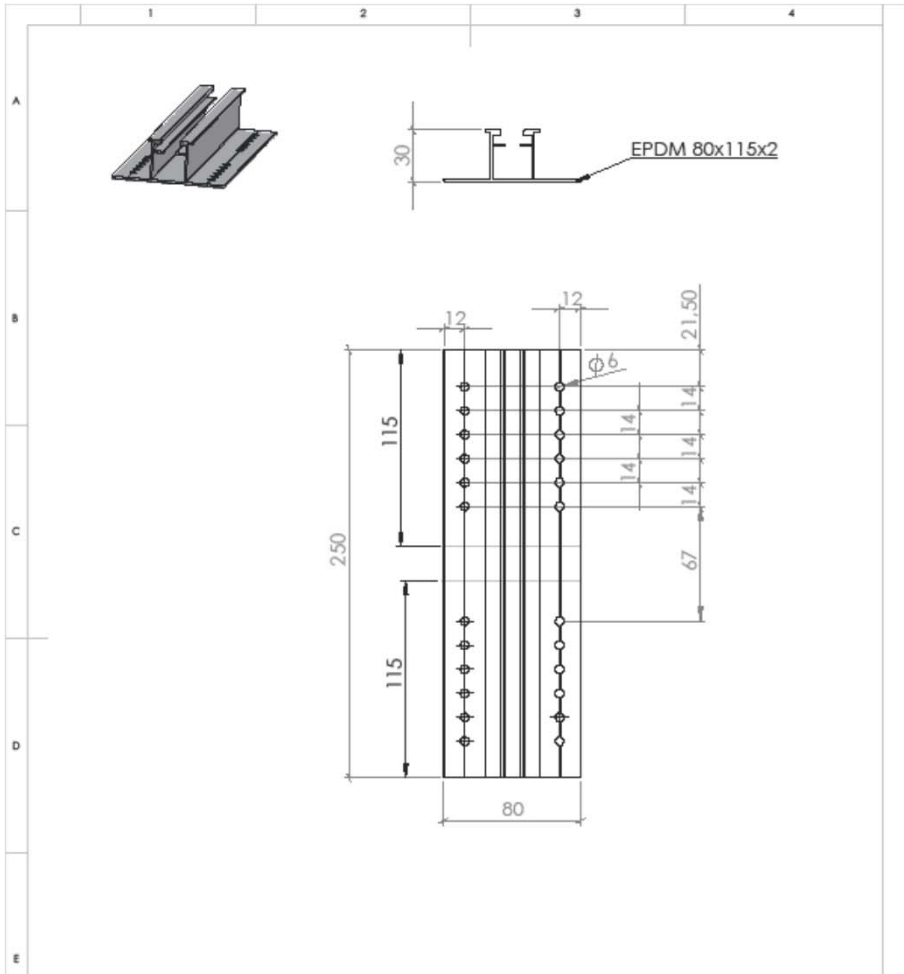
ul.Kluczborska 29
41-508 Chorzów
e-mail:alumero@alumero.pl

Wersja elektroniczną sporządził/ Elektronische Form erstellt von:	mgr inż. Mirosław Domagalski	Nr rys./Zg.-Nr.: 802440	Format/Format: A4
Rysunek zatwierdził/ Zeichnung freigegeben:		Nazwa rysunku/Benennung: TBB 2.1	Indeks/Index: D
Data/Datum: 2016-06-16	Waga/Gewicht: 0,267kg/Stk	Wykończenie/Bearbeitung:	Materiał/Material: EN AW 6063 T66; EPDM

Trap mini rail – L=250 mm
Alumero Product No. 802441
Alumero Art. No. 21247
Title: Trapezoidal bridge 2.1 S (TBB 2.1 S)



Inkl. 4xBohrschraube mit Gummidichtung 5,5x25 Edelstahl (800649-1)

Uwagi/Bemerkungen:
Ausführungsklasse: EXC3 nach EN1090
Klasa Wykoniania: EXC3 wg EN 1090

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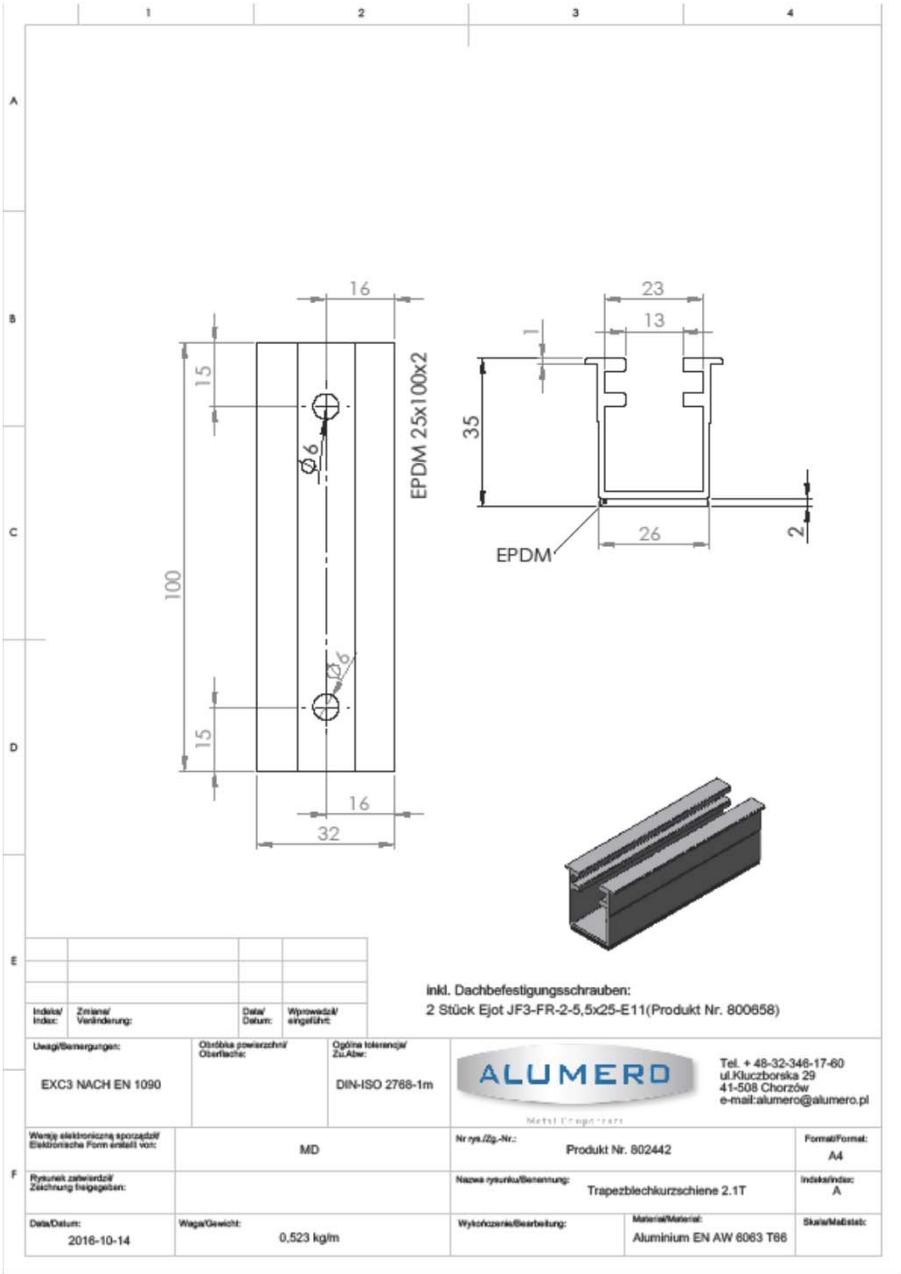
Rysunek zatwierdził/ Zeichnung freigegeben:		Nazwa rysunku/Benennung: TBB 2.1 S	Indeks/Index: A
Data/Datum: 2016-07-12	Waga/Gewicht: 0,166kg/Stk	Wykończenie/Bearbeitung:	Materiał/Material: EN AW 6063 T66; EPDM

Trap nano rail – L=100 mm
Alumero Product No. 802442
Alumero Art. No. 21278
Title: Trapezoidal short rail 2.1 T (TBK 2.1 T)



Trap bridge Plus S – L=400mm
Alumero Product No. 802449
Alumero Art. No. 17919
Title: Trapezoidal bridge TBB Plus S – L=400 mm

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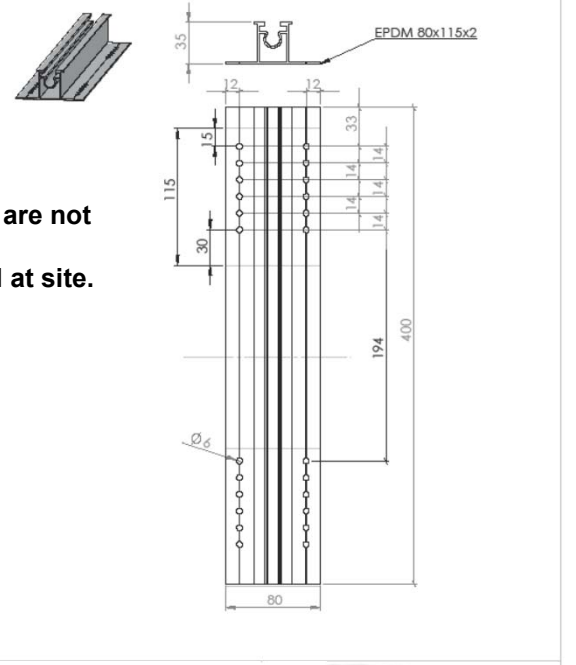
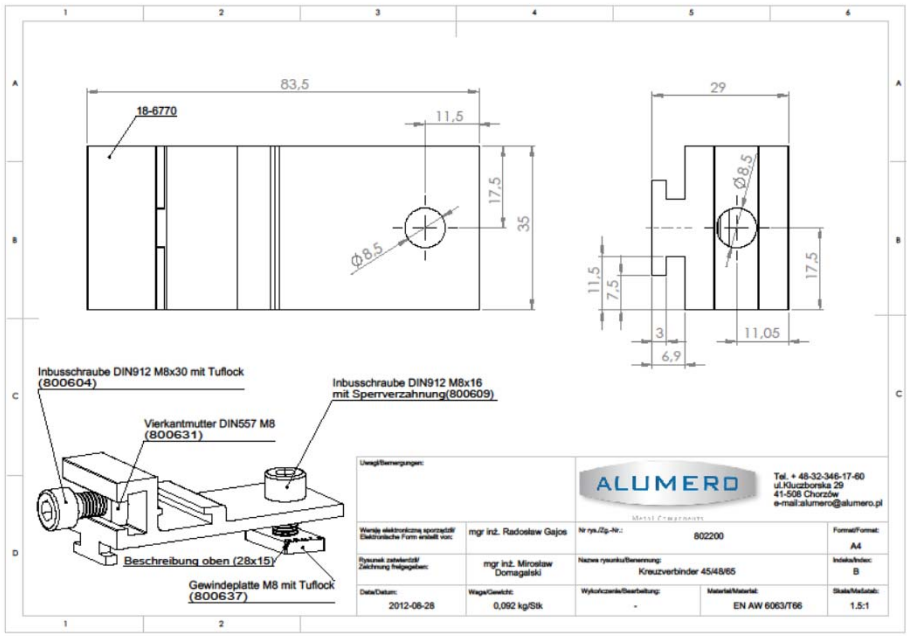
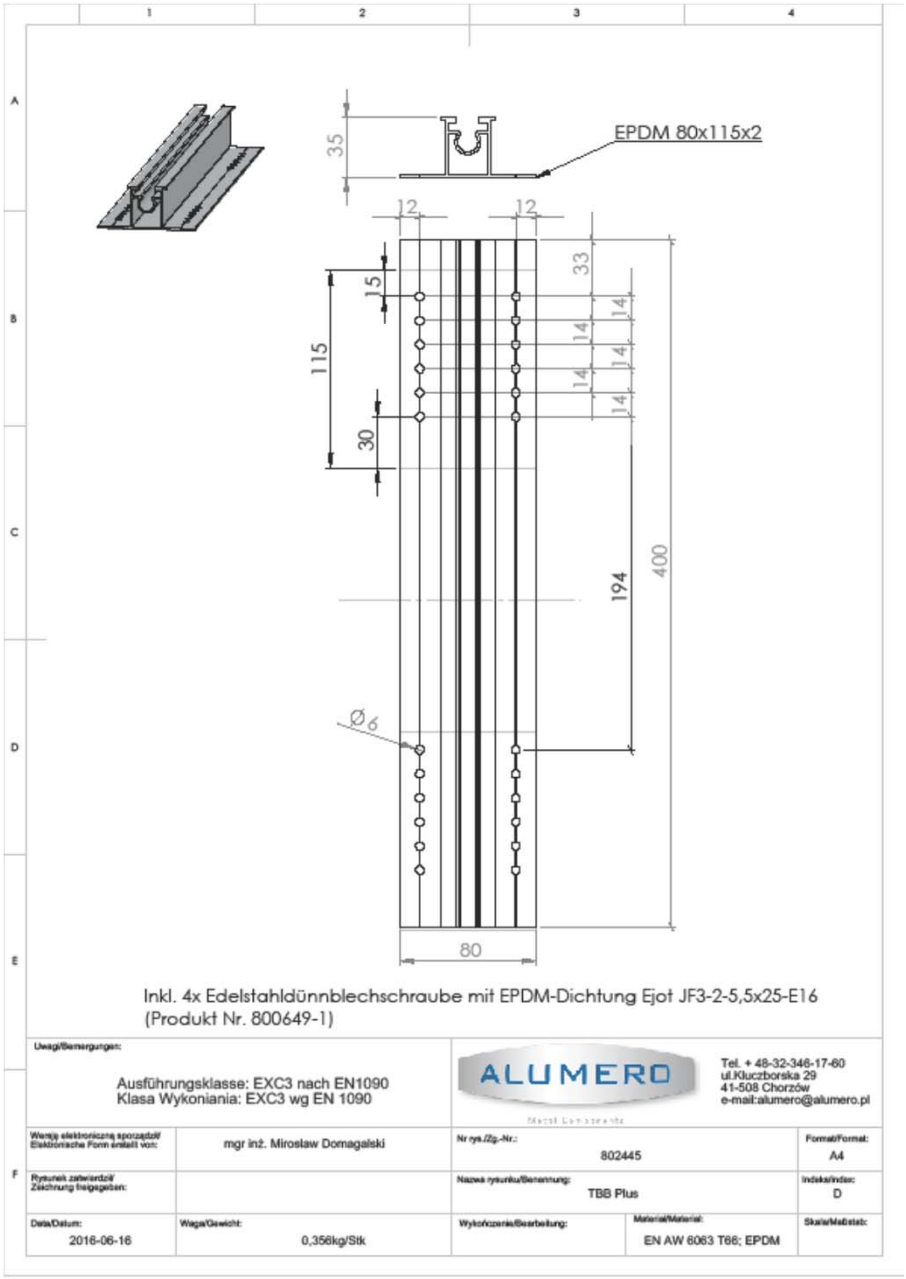


Long self-drilling screws are not part of this article !
They have to be provided at site.

Cross Connector 2.1
Alumero Product No. 802200
Alumero Art. No. 16417



Trapezoidal bridge TBB Plus – L=400 mm
Alumero Product No 802445
Alumero Art. No. 17102



Front part Plus – L=100 mm
Alumero Product No. 802446
Alumero Art. No. 17103

Back part Plus – L=100 mm
Alumero Product No. 802447
Alumero Art. No. 17104