



EUROPEAN LEADER IN PHOTOVOLTAIC INTEGRATION SYSTEMS

SAMEN NAAR ENERGIE ONAFHANKELIJKHEID

Stap voor stap installeren





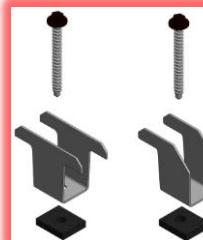
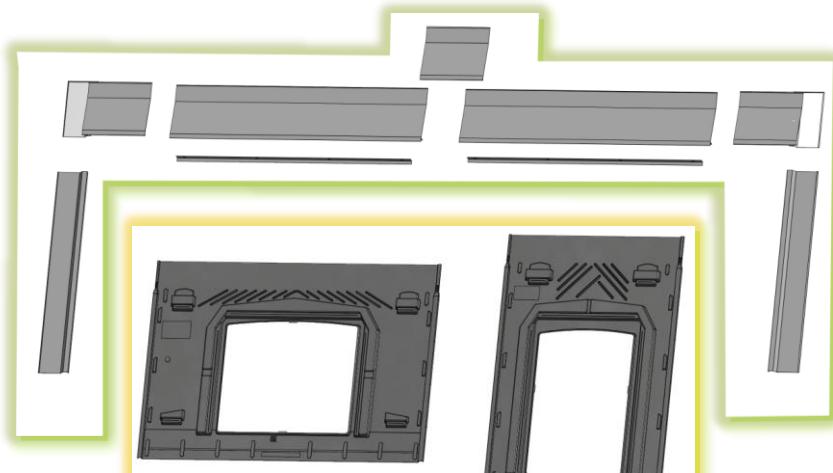
GSE IN-ROOF SYSTEM™

GSEI stap voor stap installeren

Universele kit – Presentatie

➤ Componenten :

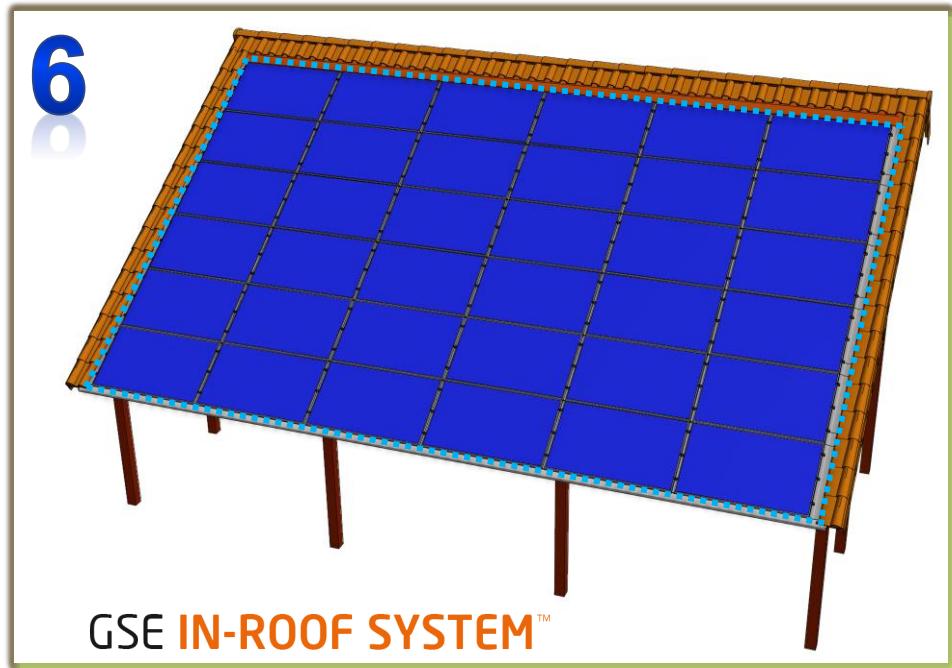
- GSE Intégration PLATEN™
- Verbinding met de dakbedekking
- PV modules & Bevestiging
- Andere componenten



Universele kit - Installatie

➤ Overzicht van de installatie

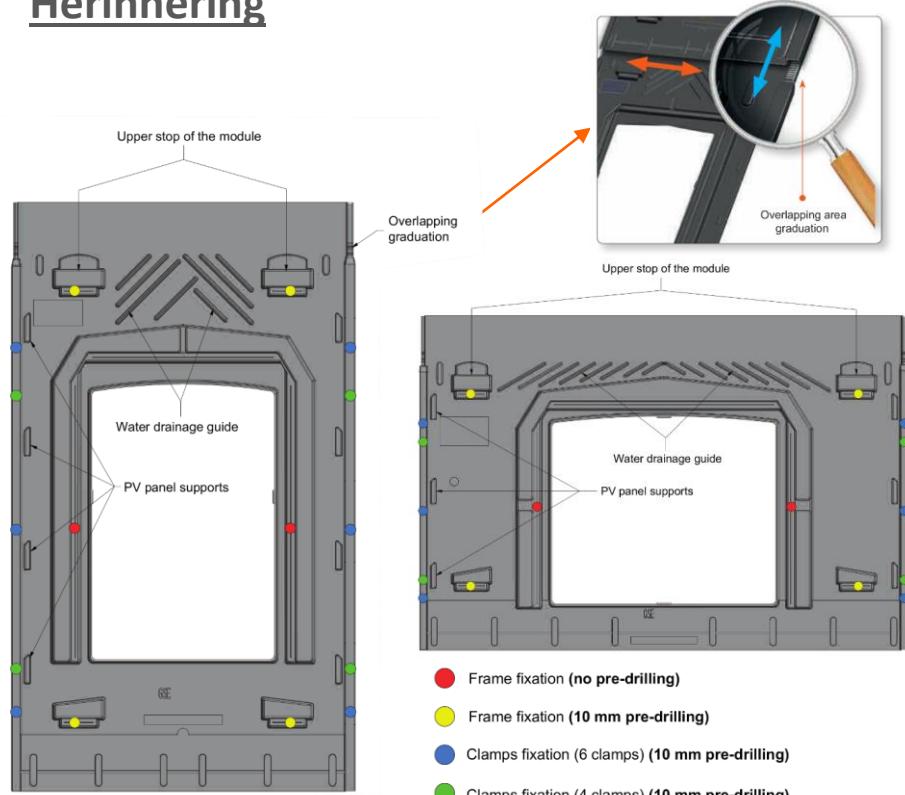
1. Bepaal de grootte van het PV-veld
2. Verwijder de dakbedekking en plaats de steunlatten
3. Plaats de waterdichte strip onderaan en monteren de GSE-frames
4. Plaats de laterale gootstukken
5. Plaats en maak de PV-modules & de nokverbinding (of de flexalu) vast
6. Plaats de dakbedekking rondom



Universele kit – Installatie stap voor stap

➤ Stap 1 : Bereken de grootte van het PV-veld

- Herinnering



		PV module dimensions						
		Height			Width			
		Réf.	Min. tolerated	Min. suggested	Max.	Min. tolerated	Min. suggested	Max.
PORTRAIT		1580_808	1500	1540	1620	801	803	808
Version 2012		1575_1046	1495	1535	1615	1039	1041	1046
Version 2020		1575_1053	1495	1535	1615	1046	1048	1053
Version 2012		1575_1082	1495	1535	1615	1075	1077	1082
Version 2020		1640_992	1560	1600	1680	985	987	992
Version 2012		1640_1001	1560	1600	1680	994	996	1001
Version 2020		1640_1001_33	1560	1600	1680	994	996	1001
Version 2012		1686-1700_1016	1605	1645	1725	1009	1011	1016
Version 2020		1710_1000	1630	1670	1750	993	995	1000
Version 2012		1710_1005	1630	1670	1750	998	1000	1005
Version 2020		1710_1020	1630	1670	1750	1013	1015	1020
Version 2012		1710_1025	1630	1670	1750	1018	1020	1025
Version 2020		1710_1030	1630	1670	1750	1023	1025	1030
Version 2012		1710_1050	1630	1670	1750	1043	1045	1050
Version 2020		1710_1060	1630	1670	1750	1053	1055	1060
Version 2012		1559_1082	1002	1042	1122	1552	1554	1559
Version 2020		1575_1082	1002	1042	1122	1568	1570	1575
Version 2012		1580_808	728	768	848	1573	1575	1580
Version 2020		1640_992	912	952	1032	1633	1635	1640
Version 2012		1650_992	912	952	1032	1643	1645	1650
Version 2020		1660_992	912	952	1032	1653	1655	1660
Version 2012		1670_992	912	952	1032	1663	1665	1670
Version 2020		1675_992_33	912	952	1032	1668	1670	1675
Version 2012		1680_992	912	952	1032	1673	1675	1680
Version 2020		1686_1016	912	952	1032	1679	1681	1686
Version 2012		1700_1016	912	952	1032	1693	1695	1700
Version 2020		1665_1020	940	980	1060	1658	1660	1665
Version 2012		1675_1020	940	980	1060	1668	1670	1675
Version 2020		1680_1020	940	980	1060	1673	1675	1680
Version 2012		1685_1020	940	980	1060	1678	1680	1685
Version 2020		1690_1020	940	980	1060	1683	1685	1690
Version 2012		1700_1020	940	980	1060	1693	1695	1700
Version 2020		1740_1020	940	980	1060	1733	1735	1740

Universele kit – Installatie stap voor stap

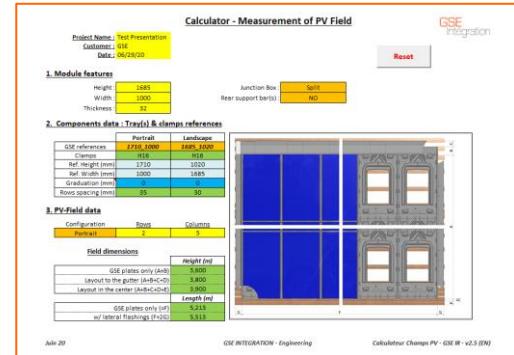
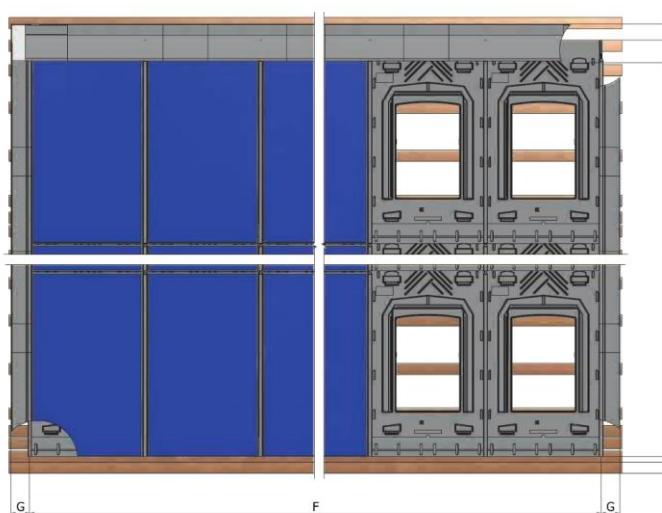
➤ Stap 1 : Bereken de grootte van het PV-veld

1. Gebruik onze dimensioneringstools :

[https://www.gseintegration.com/Docs/Intl/EN/Calculateur_Champs_PV-GSEIR-v2.5\(EN\).xslm](https://www.gseintegration.com/Docs/Intl/EN/Calculateur_Champs_PV-GSEIR-v2.5(EN).xslm)

2. Gedetailleerde berekening :

1. Bepaal het GSE-frame dat compatibel is met uw PV-module
2. En de aanpassing tussen de rijen (schaalverdeling van 0 tot 40mm)

Array height (mm) =

$$((\text{Height Ref.} + 0 \text{ to } 40+10) \times \text{Nb. lines}) + 160 + 150 + 50 + 100^2$$

$$A + B + C + D + E$$

Array width (mm) =

$$(\text{Width Ref.} + 36.5) \times \text{Nb. columns} + (2 \times 165)$$

$$F + 2 \times G$$

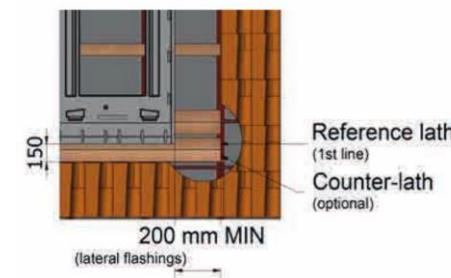
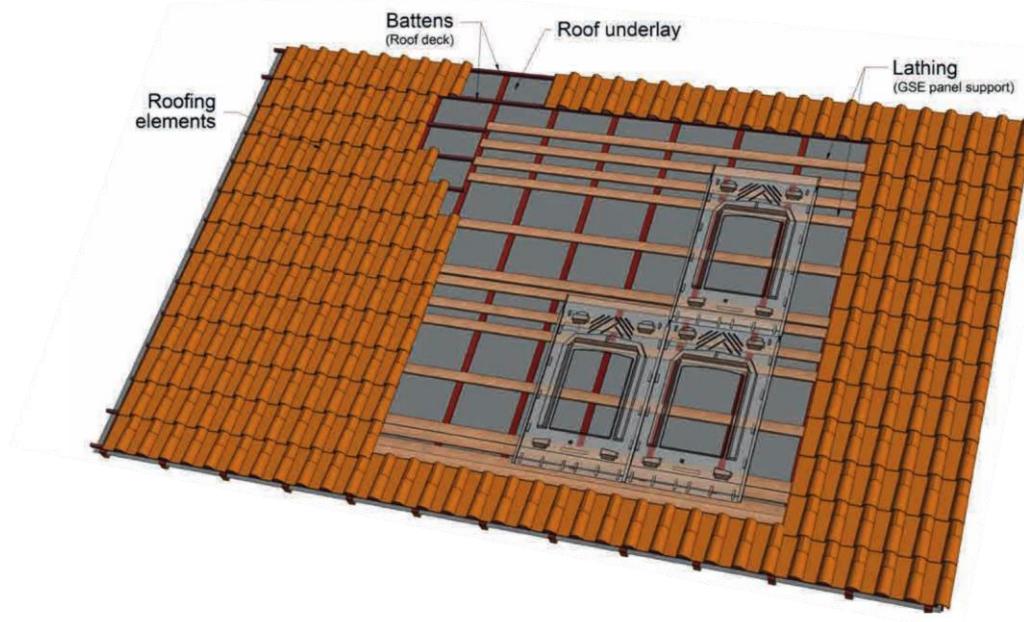
² If integrated in the roof center, add a board to equalise with the tile curve height (ie. 3.3)

NB: Subscribe to our webinars on dimensioning tools

Universele kit – Installatie stap voor stap

➤ Stap 2 : Plaats de steunlatten

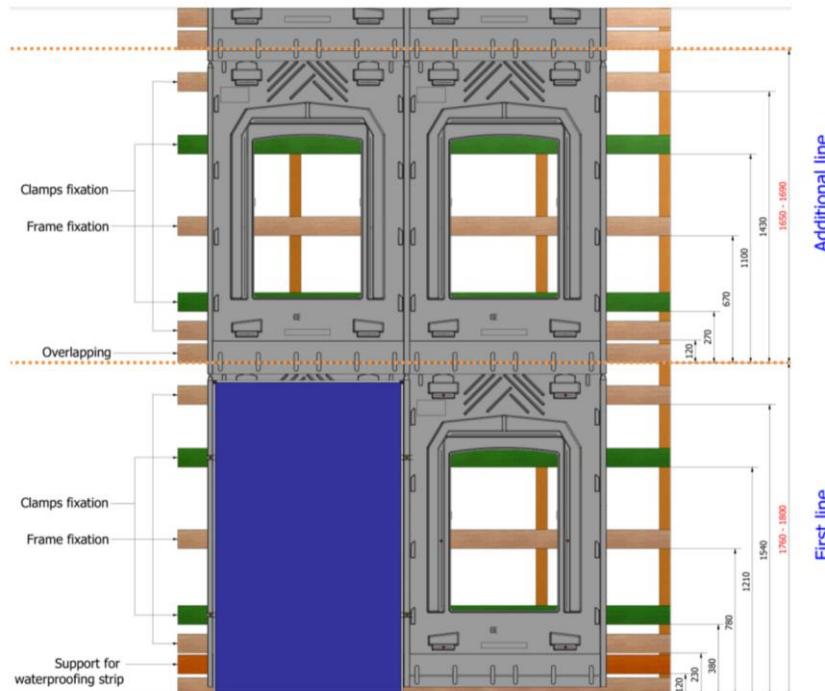
- **Bevestig de GSE-frames NIET rechtstreeks op de bestaande daklatten**
- Gebruik houten latten met passende afmetingen (vb: 27x100 (FR), 25x50 (UK),...)



Universele kit – Installatie stap voor stap

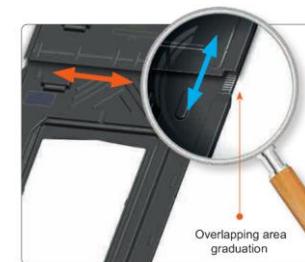
➤ Stap 2 : Plaats de steunlatten

- Algemene lattenplannen zijn beschikbaar op onze website (Portrait & Landscape) : <http://www.gseintegration.com/media.html>



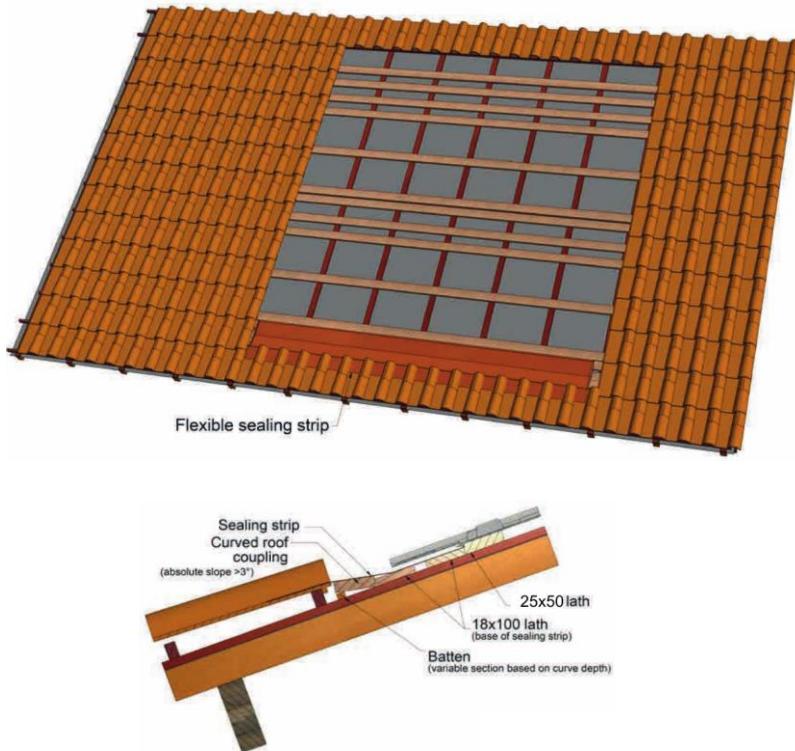
Ex: GSE Frame Portrait 1640_992

Module Length (mm)	First line (mm)	Additional line (mm)	Graduation (mm)
≤1640	1760	1650	0
≤1645	1765	1655	5
≤1650	1770	1660	10
≤1655	1775	1665	15
≤1660	1780	1670	20
≤1665	1785	1675	25
≤1670	1790	1680	30
≤1675	1795	1685	35
≤1680	1800	1690	40

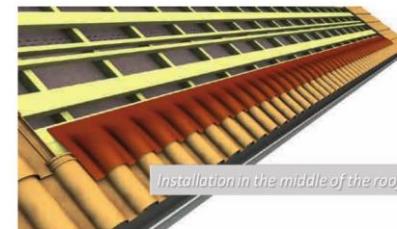


Universelle kit – Installatie stap voor stap

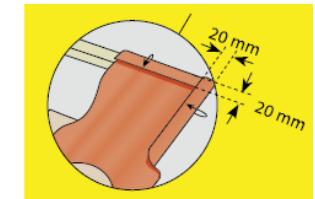
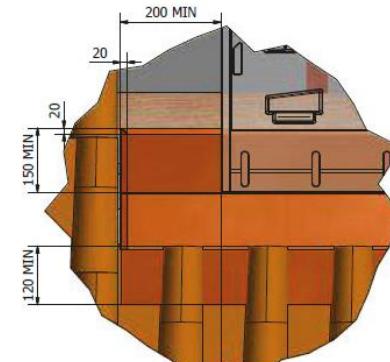
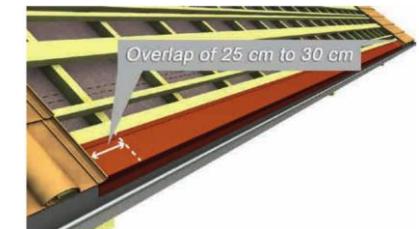
➤ Stap 3 : Plak de waterdichte strip



...with tiles underneath

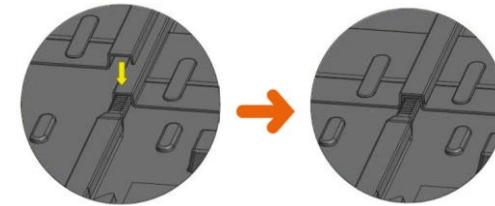
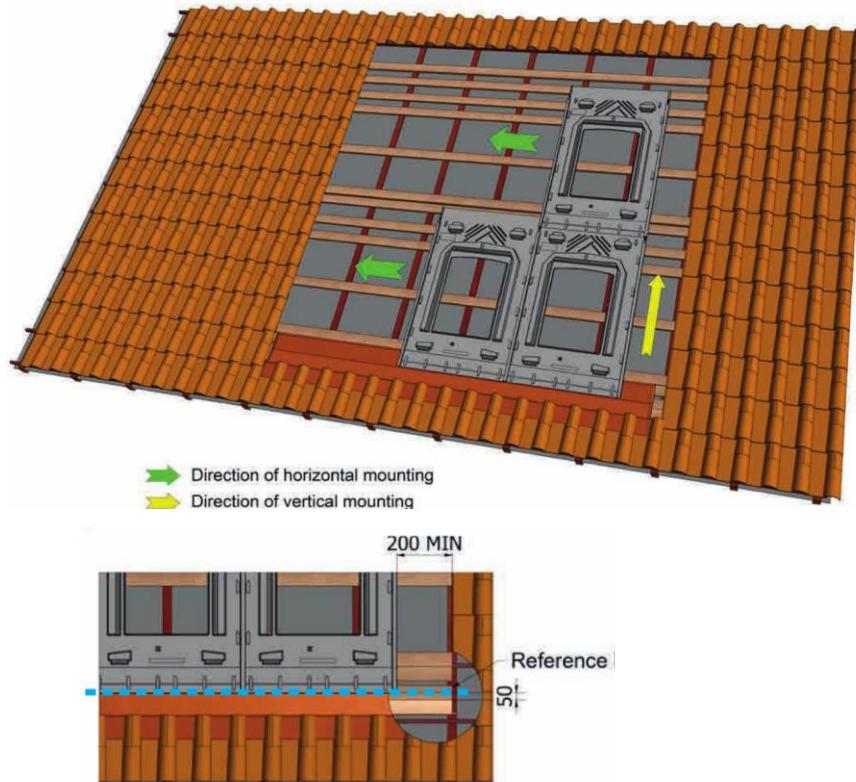


...straight to the eaves



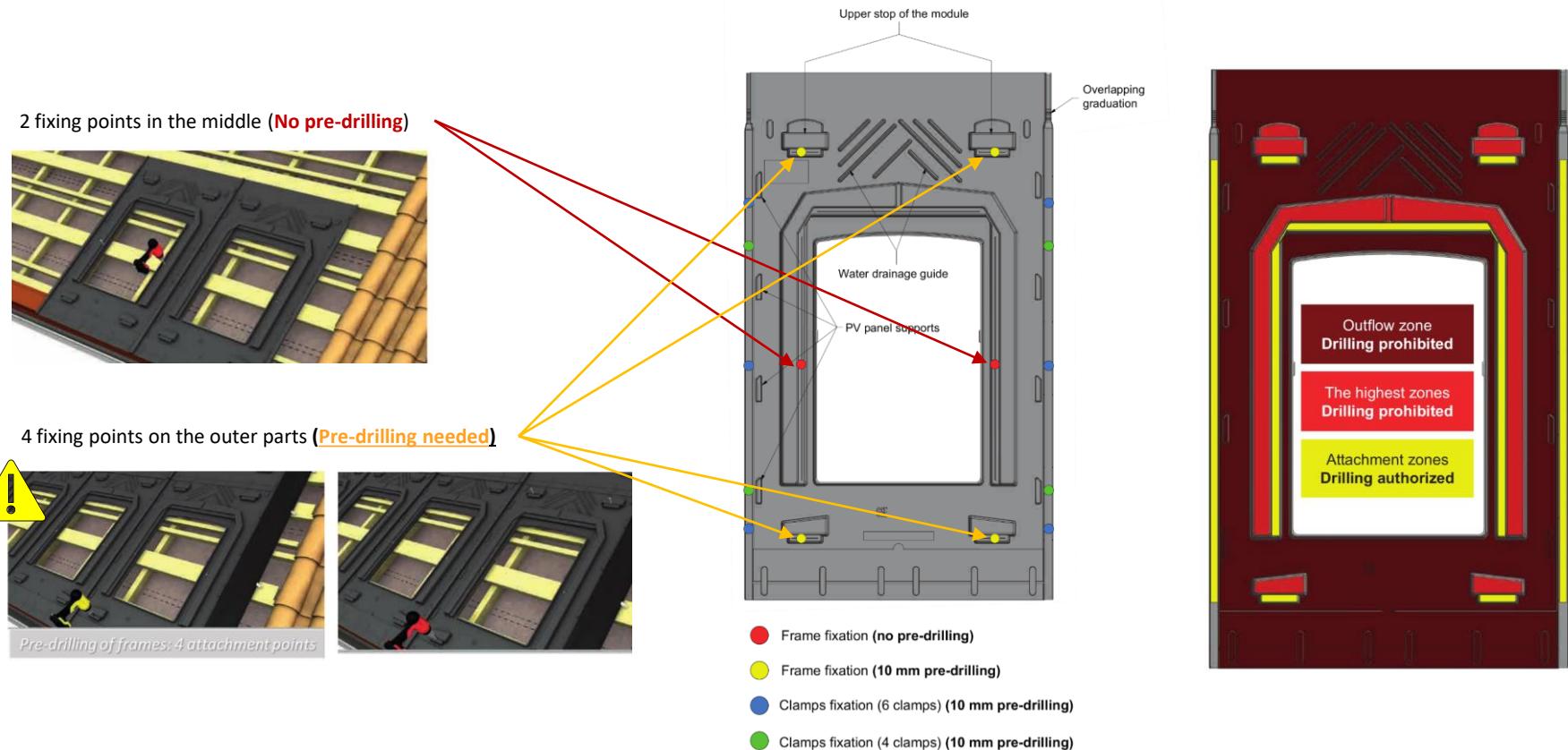
Universele kit – Installatie stap voor stap

➤ Stap 3 : Monteer de GSE-frames



Universele kit – Installatie stap voor stap

➤ Stap 3 : Bevestiging van de GSE-frames

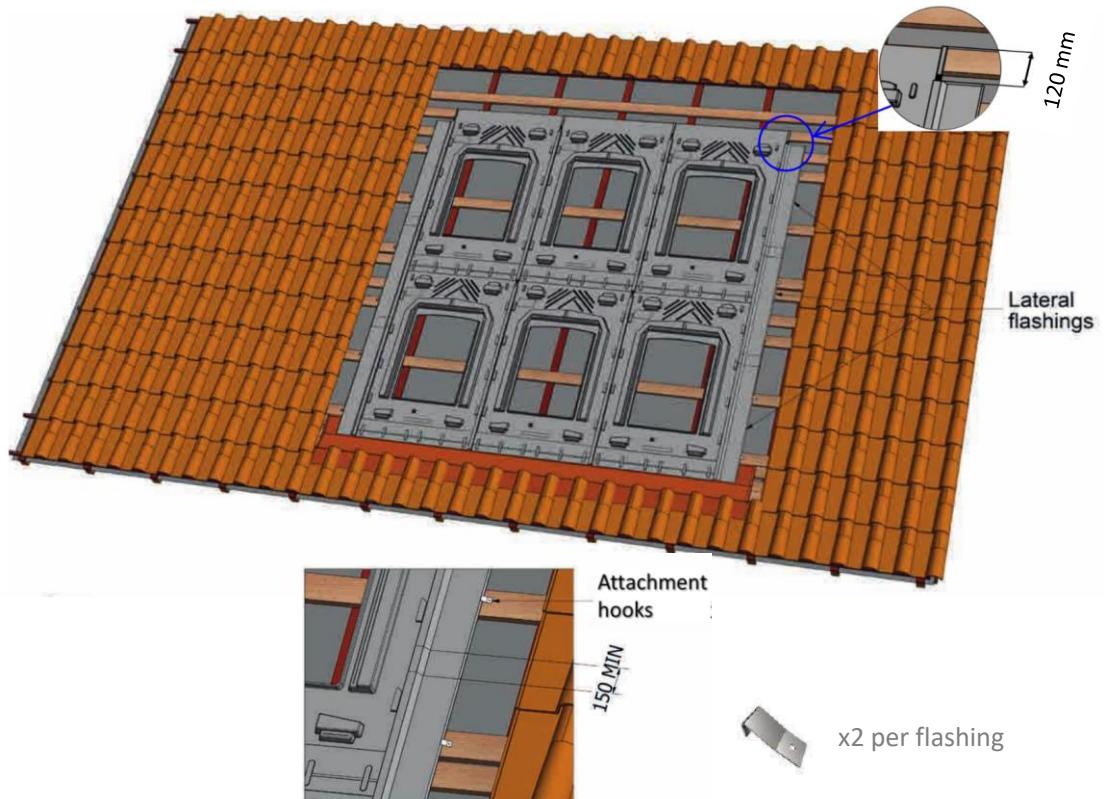
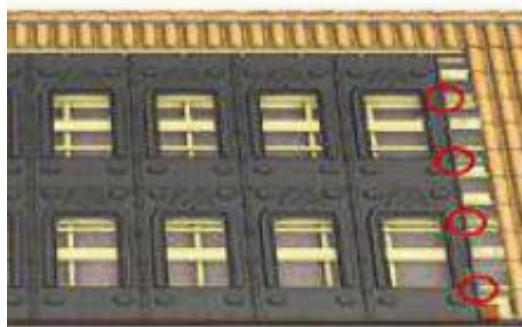
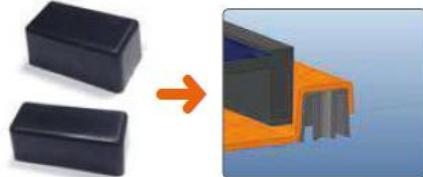


Universele kit – Installatie stap voor stap

➤ Stap 4 : Plaats de laterale gootstukken

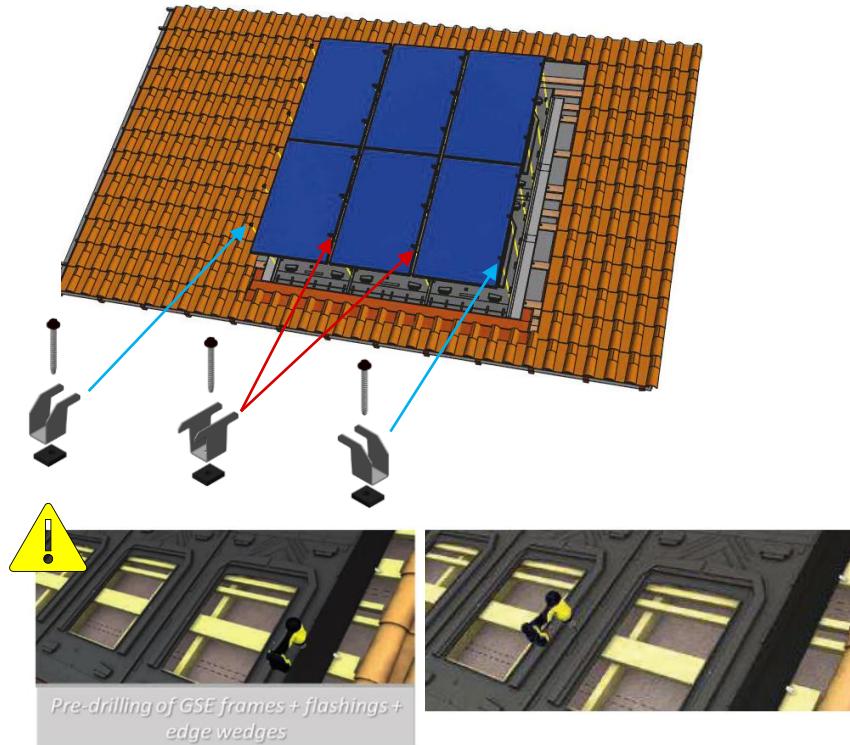


Prior, place the plastic wedges under the edges of the frames at the position of the end clamps

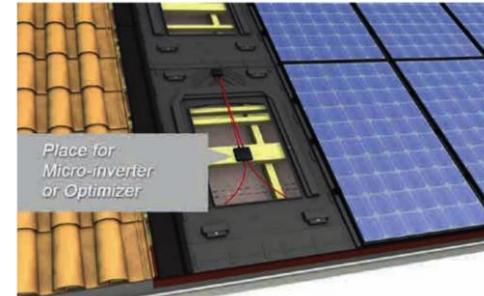


Universele kit – Installatie stap voor stap

➤ Stap 5 : Plaats en bevestig de PV-modules



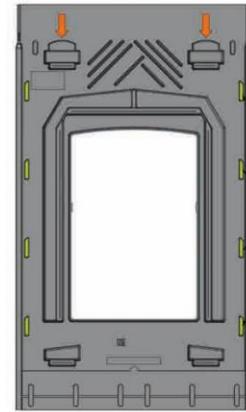
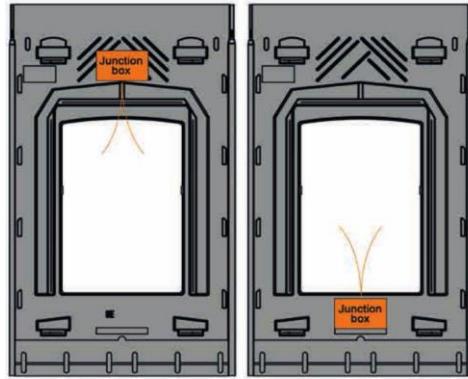
Fixation of Micro-inverters / Optimizer



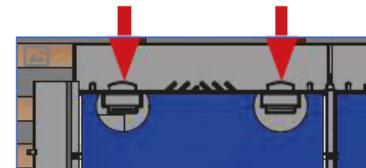
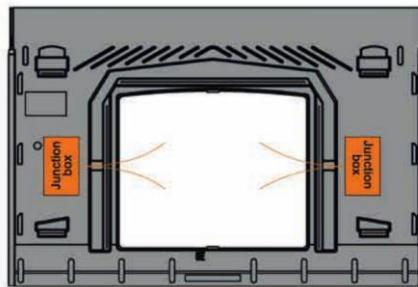
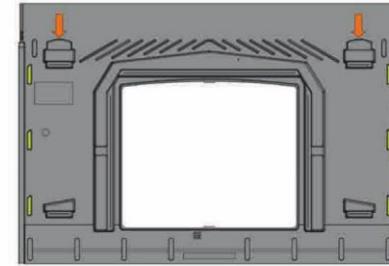
Refer to the instruction
of the manufacturer

Universele kit – Installatie stap voor stap

➤ Stap 5 : Plaats en bevestig de PV-modules

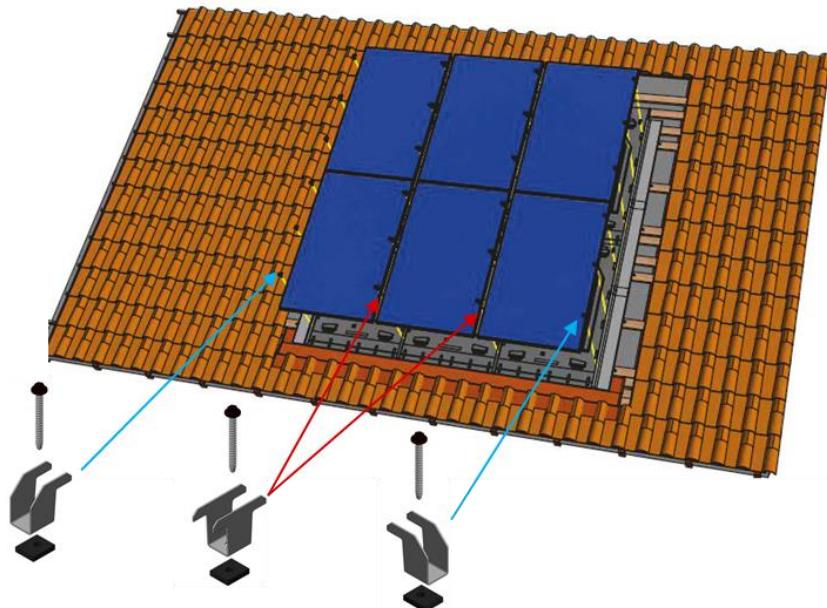


Position the modules in such a way that they're resting on the support pads (yellow) and abut against the upper pads (orange arrows).

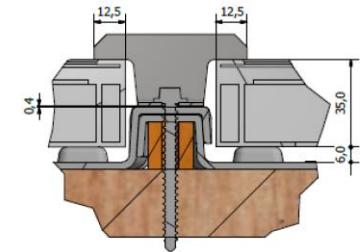


Universele kit – Installatie stap voor stap

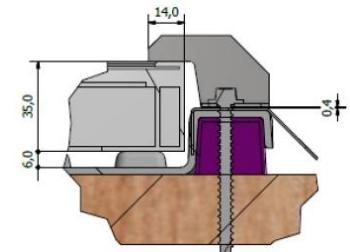
➤ Stap 5 : Plaats en bevestig de PV-modules



Fixation of the middle clamps

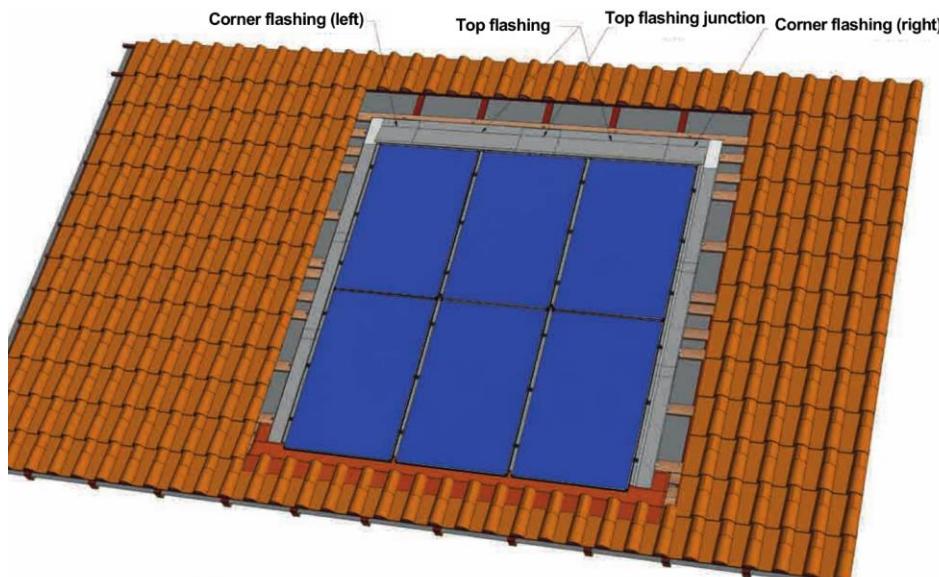


Fixation of the end clamps



Universele kit – Installatie stap voor stap

➤ Stap 5a : Installeer de bovenste gootstukken (Optie 1)

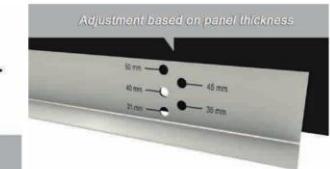


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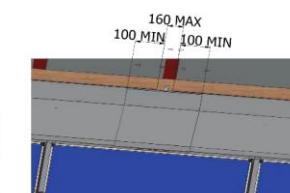
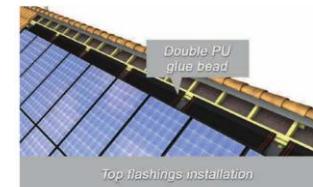


x2 per flashing

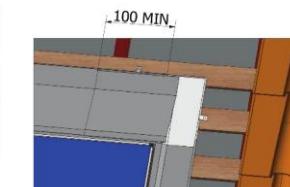
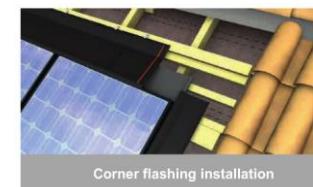
- Top Flashing + attach angle



- Top flashing junction



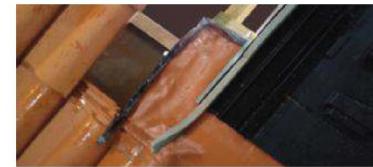
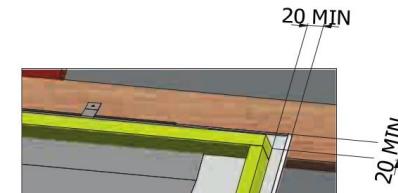
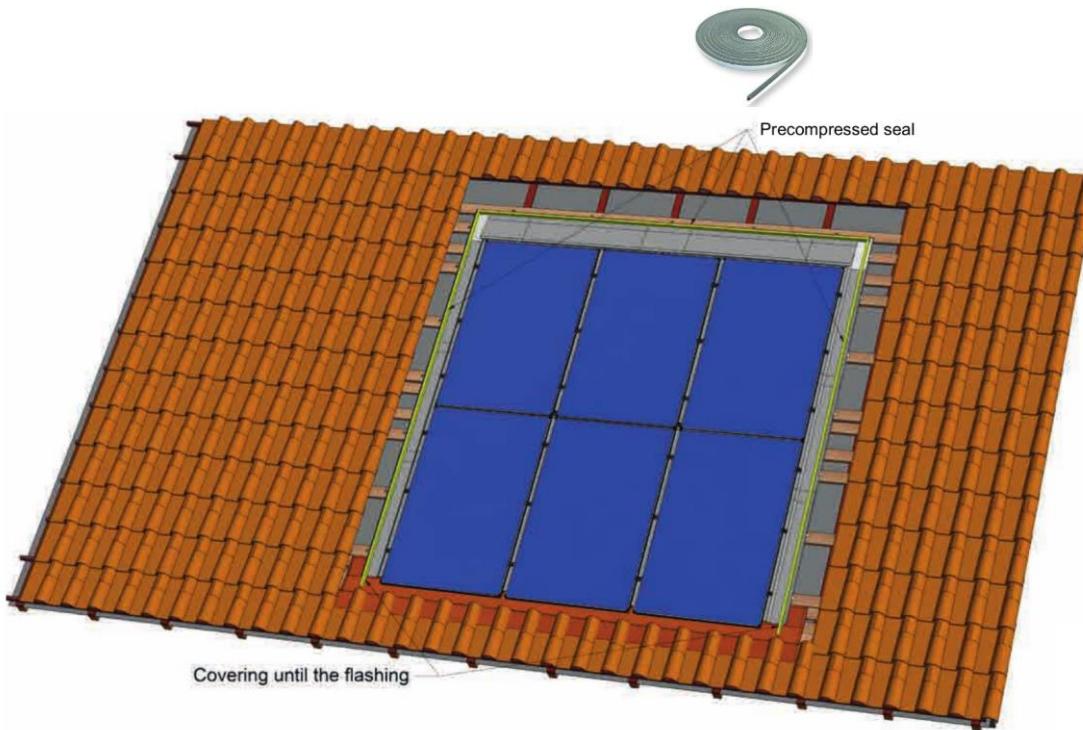
- Corner flashings



Universele kit – Installatie stap voor stap

➤ Stap 5a : Installeer het bovenste gootstuk (Optie 1)

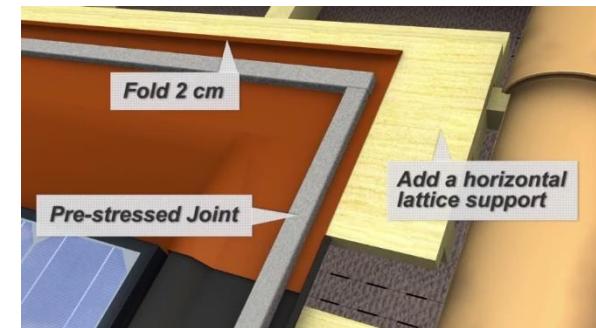
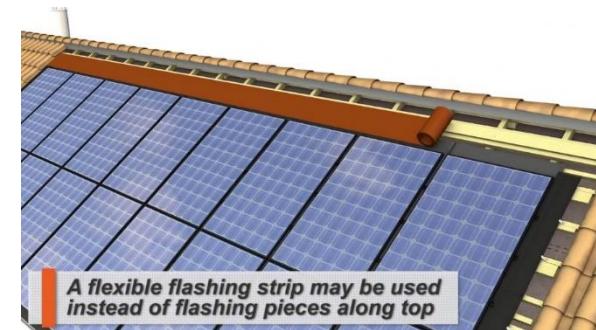
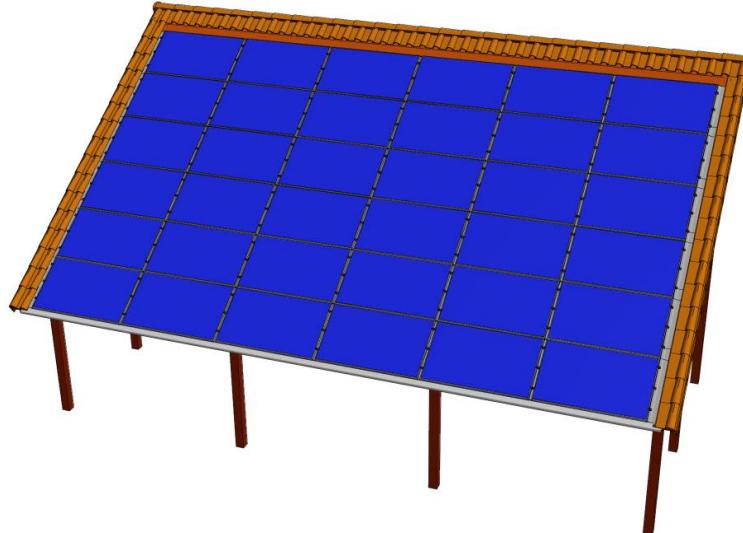
- Breng het voorgeperste schuim aan



Universele kit – Installatie stap voor stap

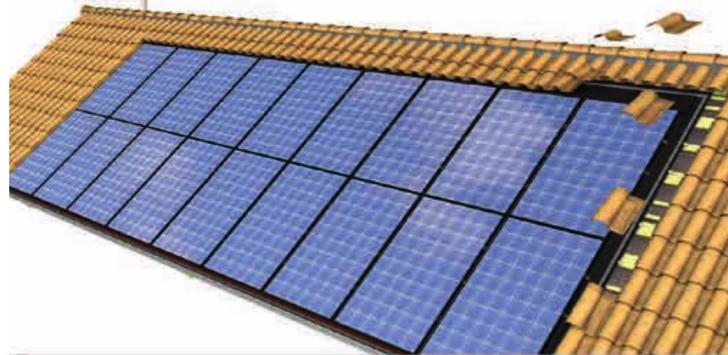
➤ Stap 5b : Breng de waterdichte strip aan (Optie 2)

- Laag hellend dak $\leq 17^\circ$
- Gemakkelijker / sneller te installeren

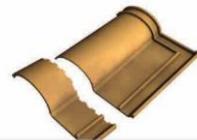


Universele kit – Installatie stap voor stap

➤ Stap 6 : Plaats de dakbedekking



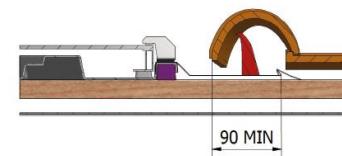
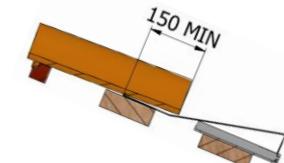
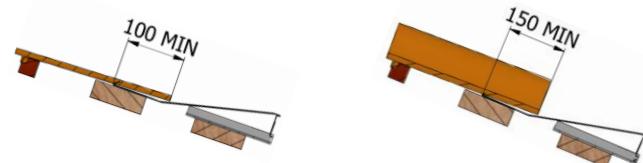
Installation of the cutted tiles



Tiles cutting for top flashing

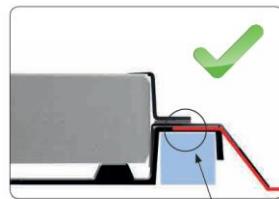


Tiles cutting for left flashing

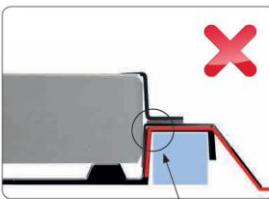


Universele kit – Installatie stap voor stap

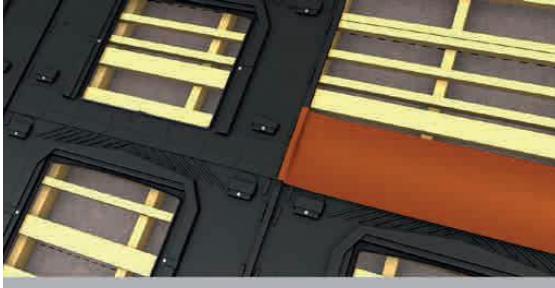
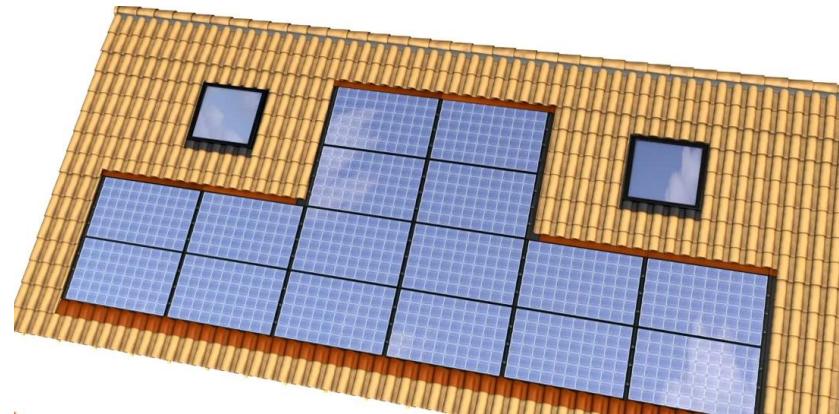
➤ Specifieke gevallen : PV- veld in « L » vorm



End the flashing strip on top
of the corrugation



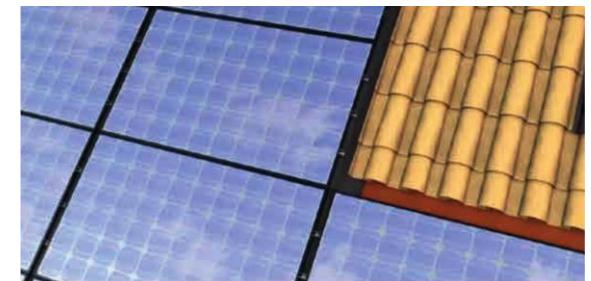
Risk of tearing



Installation of the flexible zinc strip

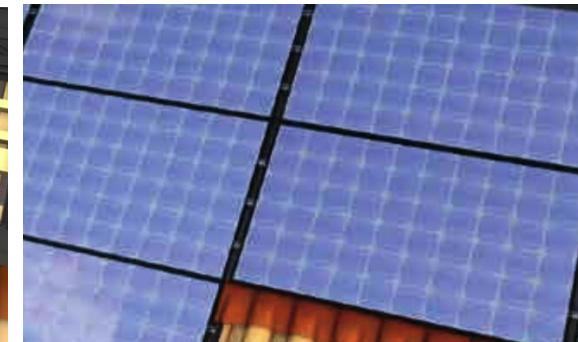
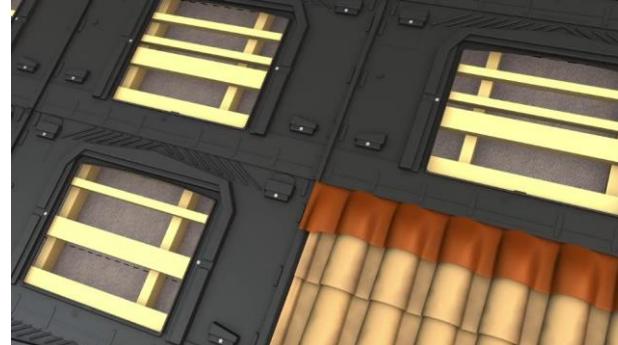
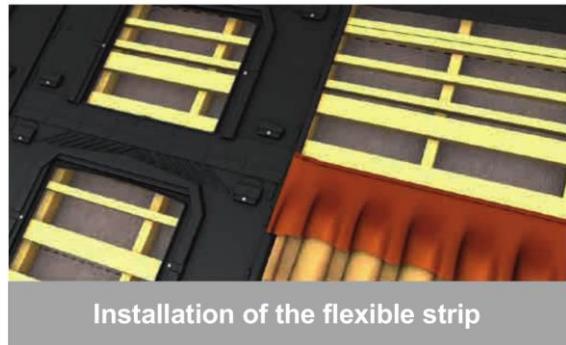
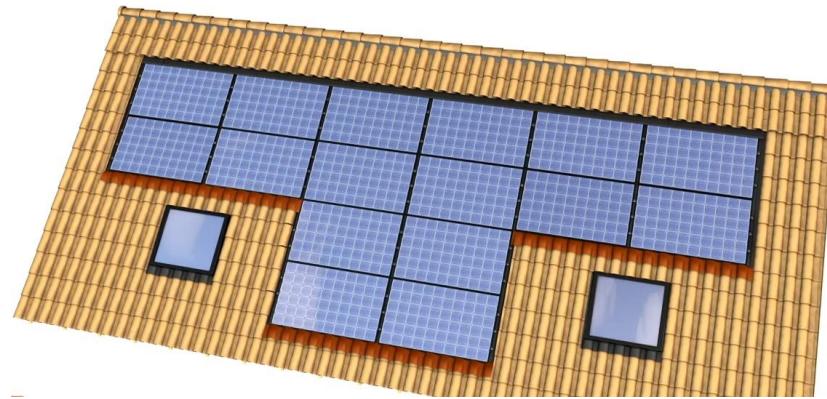
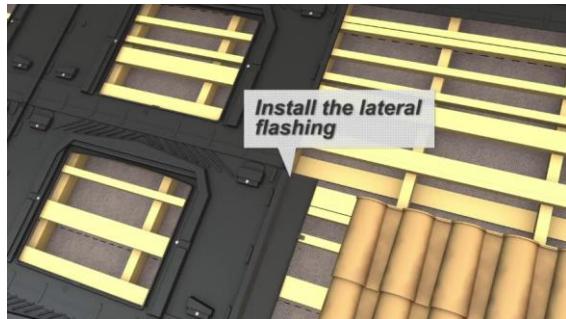


Installation of lateral flashing



Universelle kit – Installatie stap voor stap

➤ Specifieke gevallen : PV- veld in « T » vorm



GSE IN-ROOF SYSTEM™

SPECIFIEKE KIT V. TS-1

GEBOGEN PAN

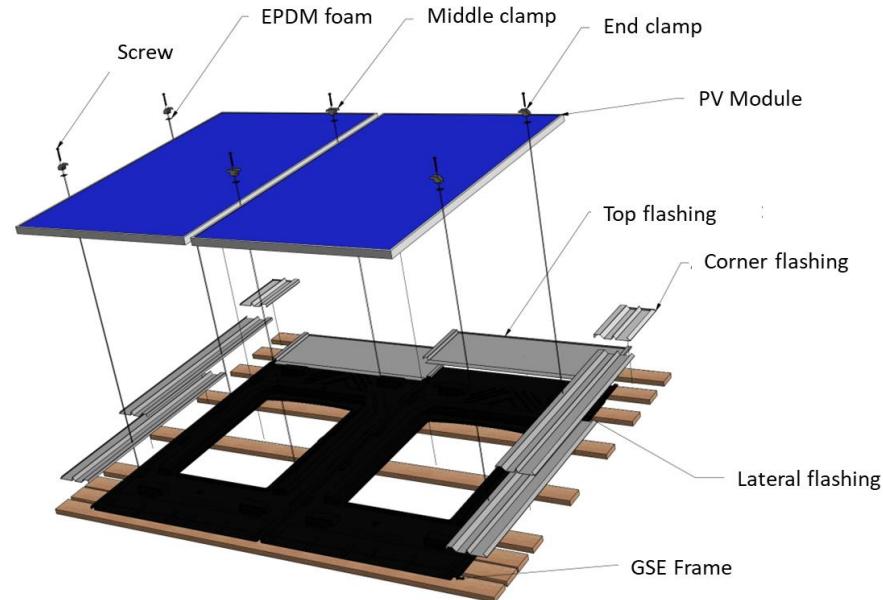
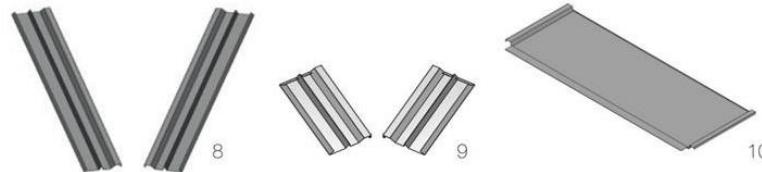


Presentatie & Installatie

GSE In-roof V. TS-1 – Componenten

➤ Algemene beschrijving

- 6 afdekdelen
 - 2 zij afdekplaten
 - 1 boven afdekplaat
 - 1 bovenaansluiting
 - 2 hoekdelen

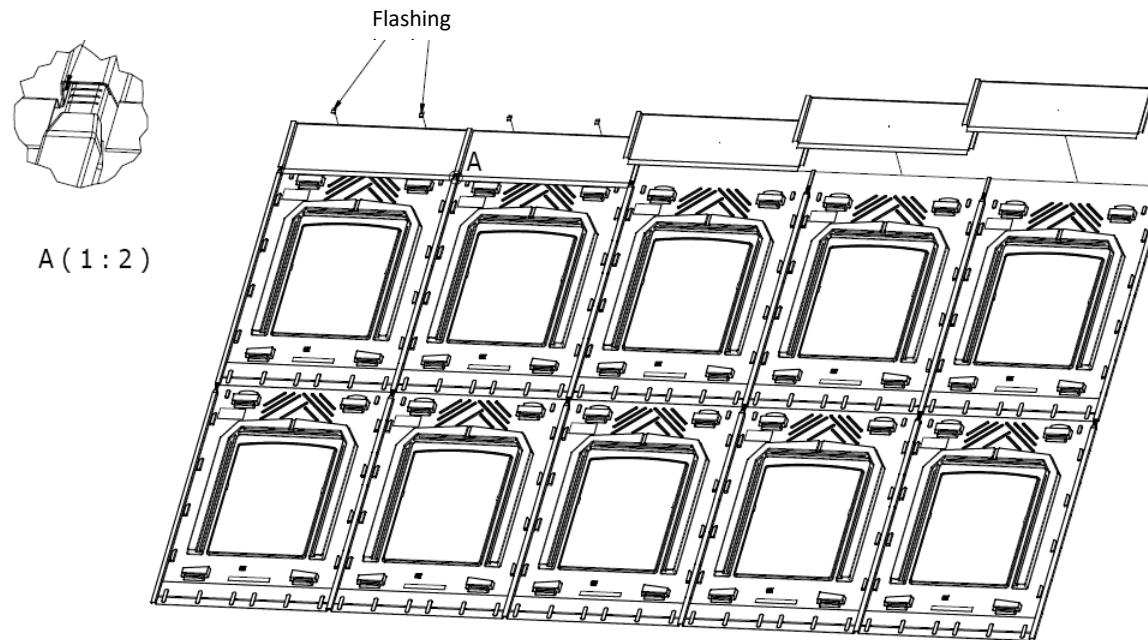


➤ Toepassingsgebied

- Alleen beschikbaar om in portrait te plaatsen
- Wil je toch Landscape plaatsen, gebruik dan alleen de zij- en hoekdelen en gebruik een waterdichte strip voor de boven aansluiting.

GSE In-roof V. TS-1 – Installatie

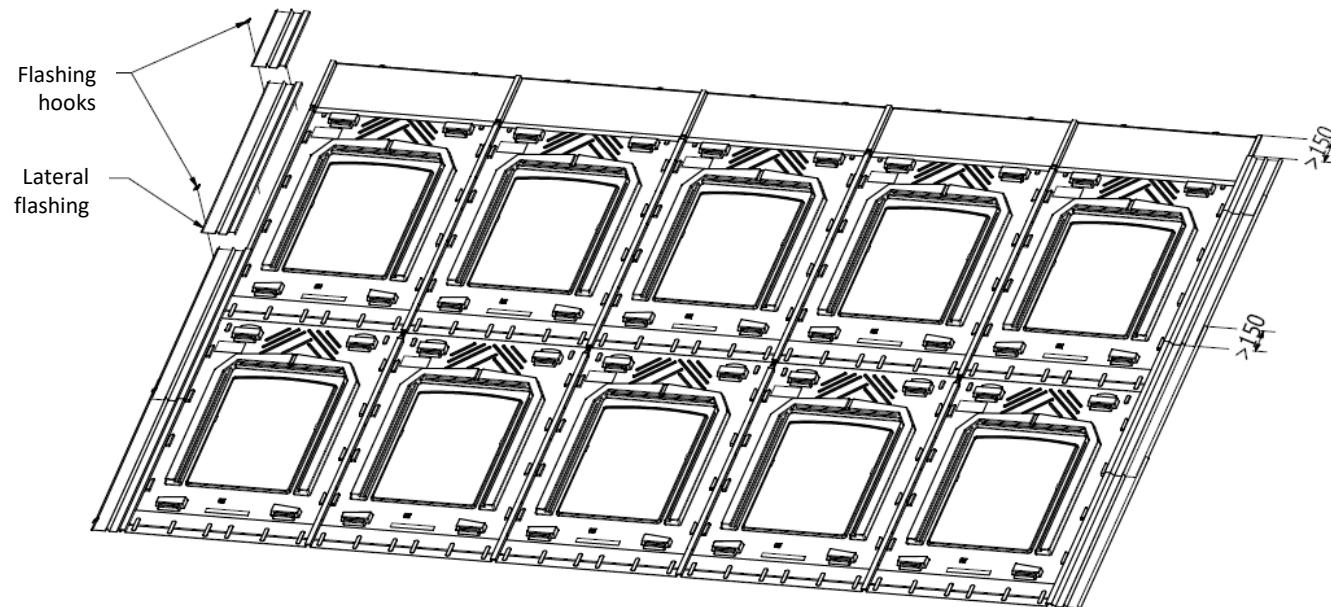
- Stap 1 : Boven afdekplaten (Enkel bij portrait plaatsing)



NB: Gebruik bij Landscape plaatsing, een waterdichtingsstrip.

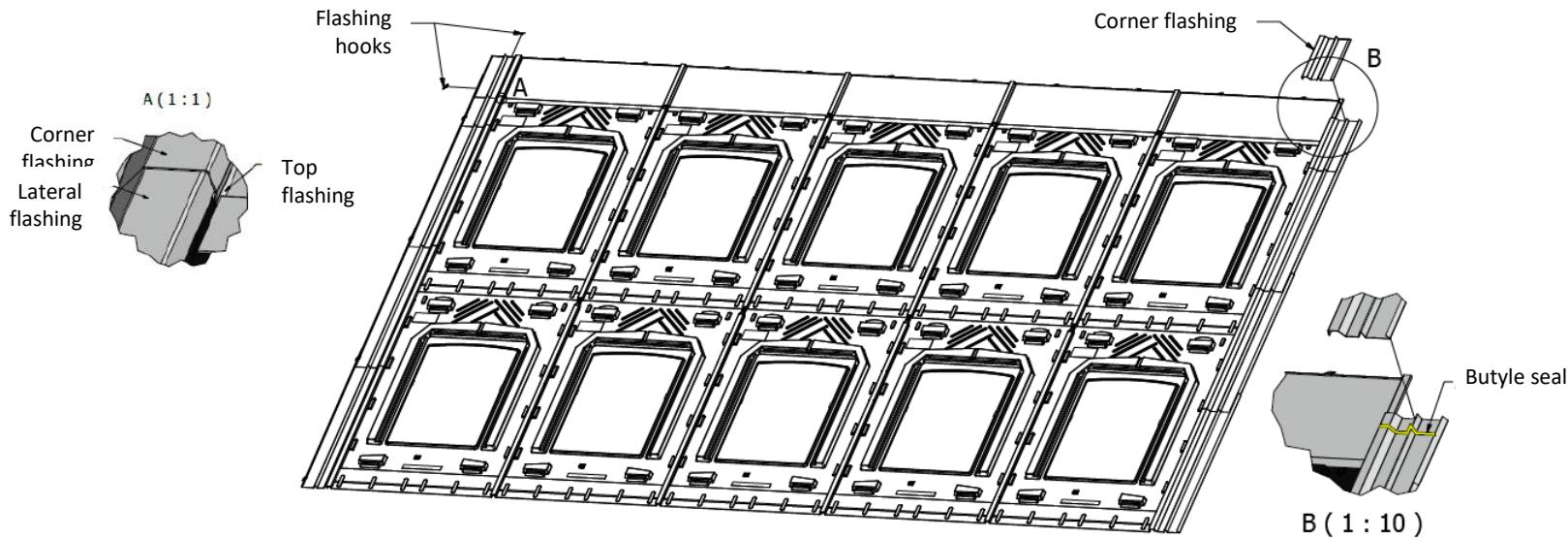
GSE In-roof V. TS-1 – Installatie

➤ Stap 2 : Zij afdekplaten



GSE In-roof V. TS-1 – Installatie

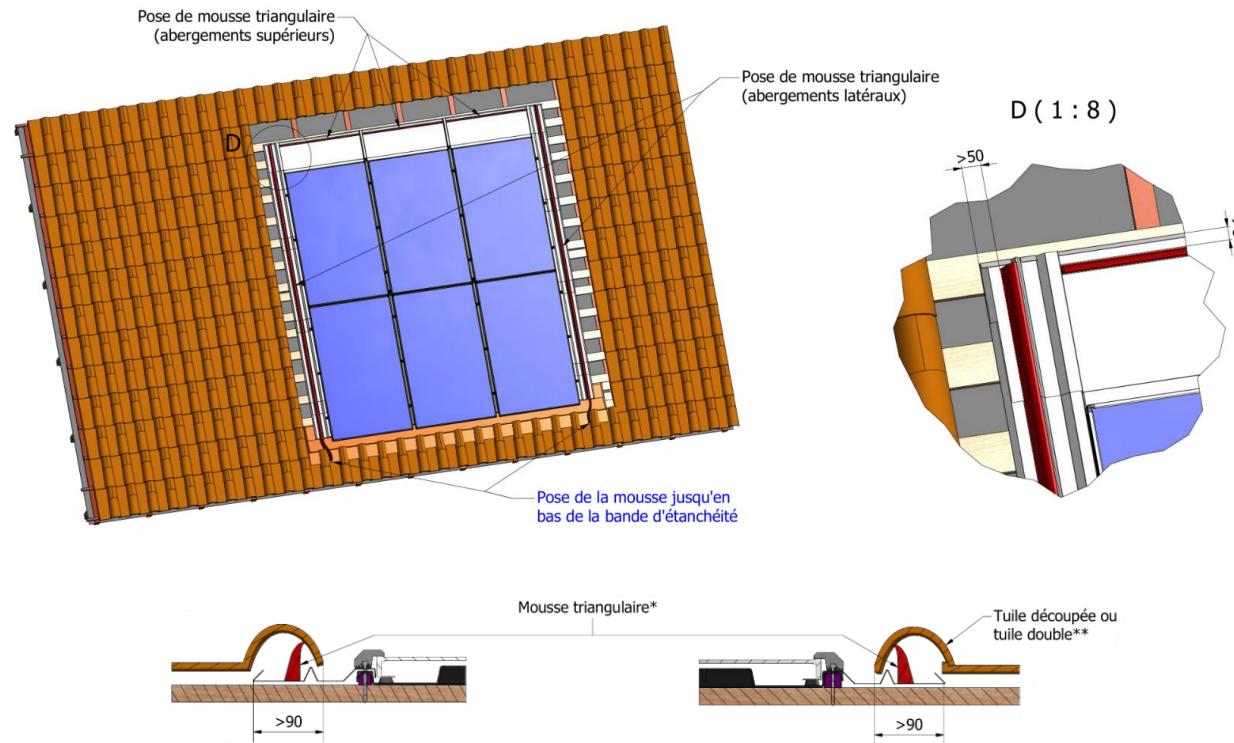
➤ Stap 3 : Hoek afdekplaten (Enkel bij portrait plaatsing)



NB: Gebruik bij Landscape plaatsing, een waterdichtingsstrip.

GSE In-roof V. TS-1 – Installatie

➤ Laatste stap : Plaats de dakelementen



GSE IN-ROOF SYSTEM™

SPECIFIEKE KIT V. A-1 - LEIEN

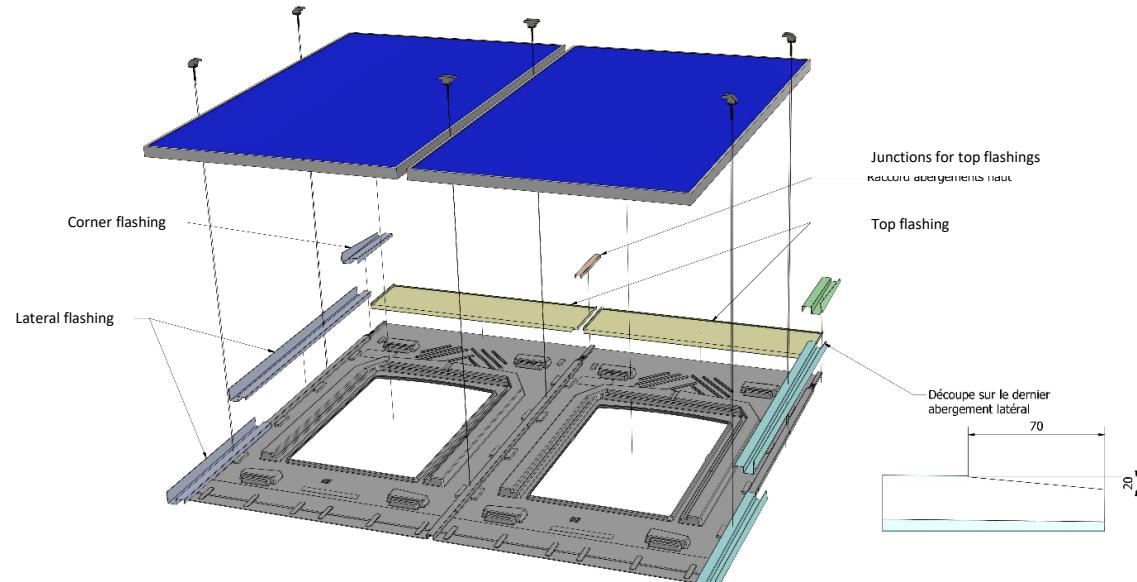
Presentatie & Installatie



GSE In-roof V. A-1 – Componenten

➤ Algemene beschrijving

- 6 afdekdelen
 - 2 zij afdekplaten
 - 1 boven afdekplaat
 - 1 bovenaansluiting
 - 2 hoekdelen



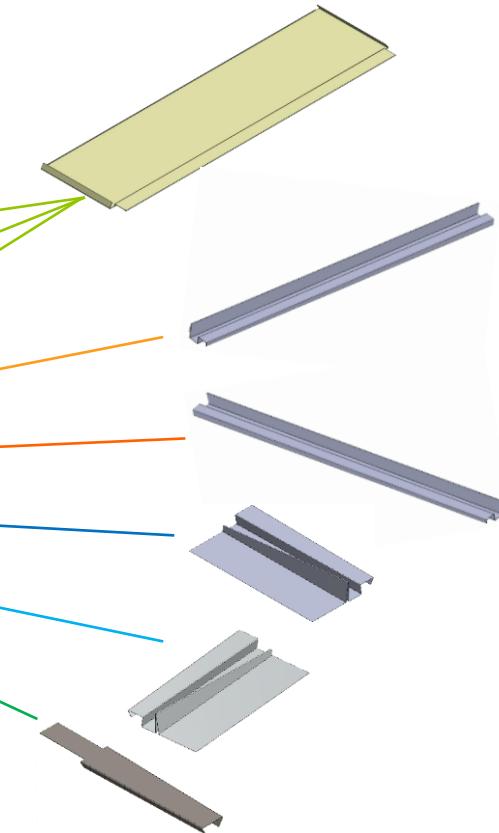
➤ Toepassingsgebied

- Alleen beschikbaar om in portrait te plaatsen
- Wil je toch Landscape plaatsen, gebruik dan alleen de zij- en hoekdelen en gebruik een waterdichte strip voor de boven aansluiting.

GSE In-roof V. A-1 – Components

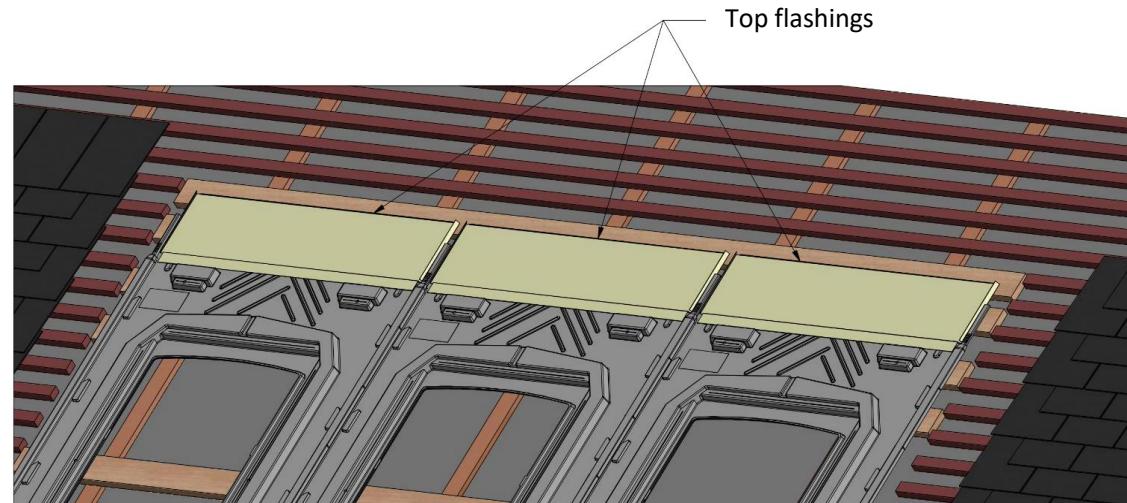
➤ Lijst van onderdelen

DESIGNATION GSE	REFERENCES GSE
Top flashing 992-v.A-1 ATEC Slate	ART101567
Top flashing 1001-v.A-1 ATEC Slate	ART101014
Top flashing 1046-v.A-1 ATEC Slate	ART100820
Left Lateral flashing -v.A-1 ATEC Slate	ART100568
Right Lateral flashing -v.A-1 ATEC Slate	ART100429
Left corner flashing -v.A-1 ATEC Slate	ART101291
Right corner flashing -v.A-1 ATEC Slate	ART100195
Top flashing junction -v.A-1 ATEC Slate	ART100110



GSE In-roof V. A-1 – Installation

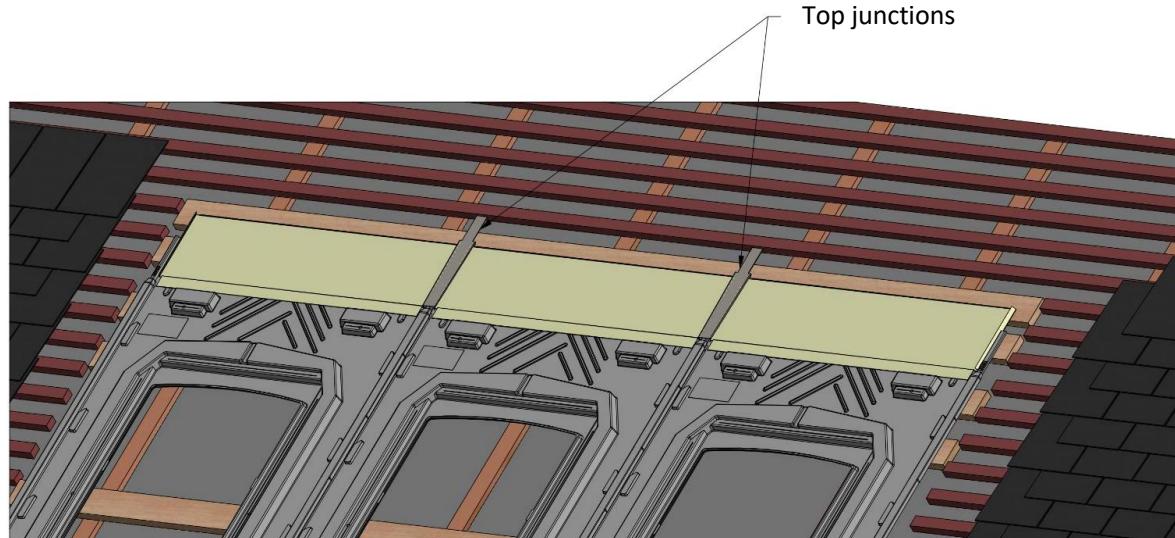
- Stap 1 : Bovenste afdekplaat (Alleen bij portrait installatie)



NB: Gebruik bij Landscape plaatsing, een waterdichtingsstrip.

GSE In-roof V. A-1 – Installatie

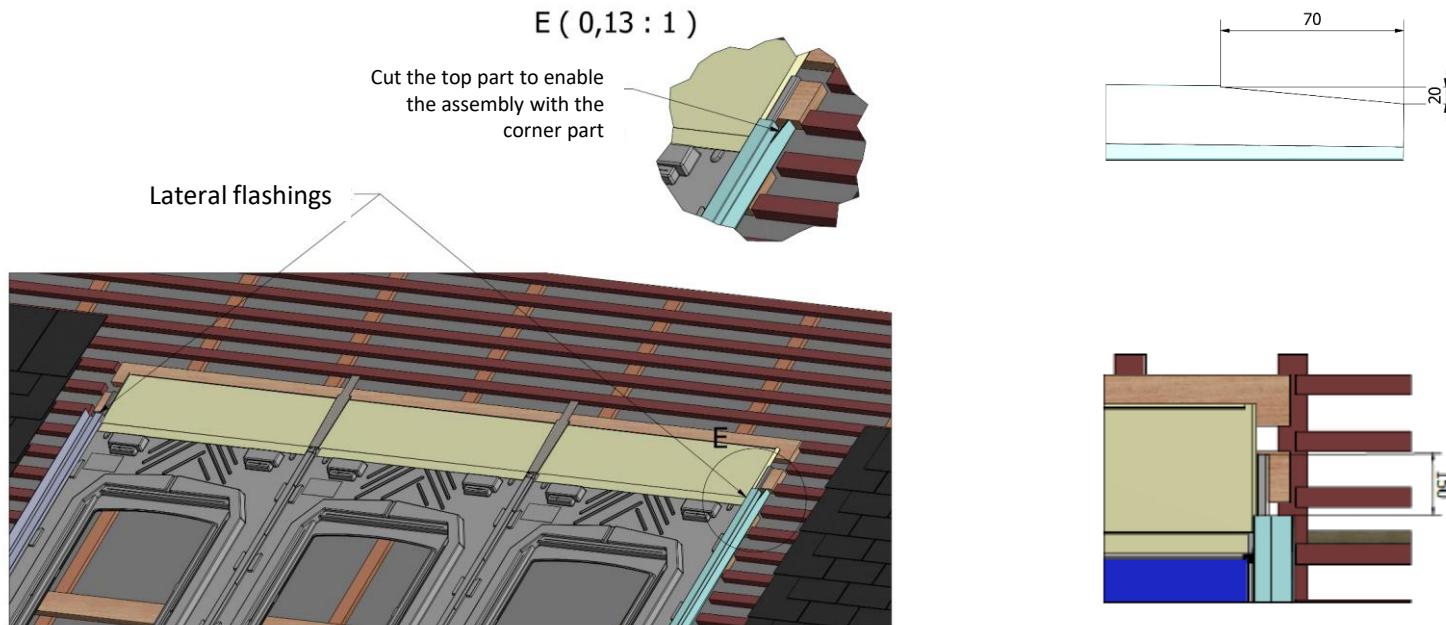
- Stap 2 : Bovenste verbindingen (Alleen bij portrait installatie)



NB: Gebruik bij Landscape plaatsing, een waterdichtingsstrip.

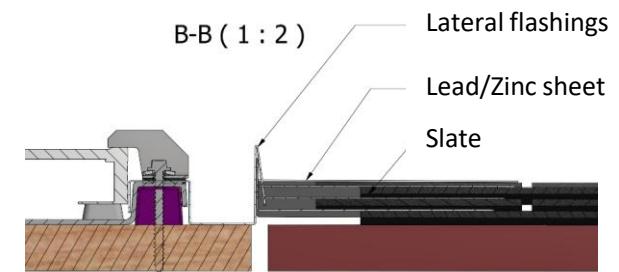
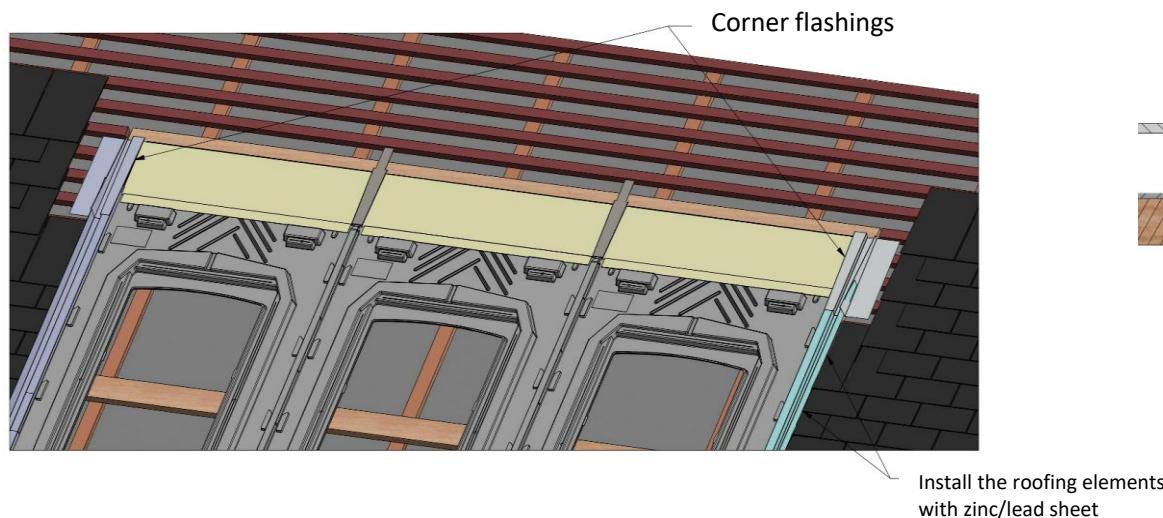
GSE In-roof V. A-1 – Installatie

➤ Stap 3 : Zij afdekplaat



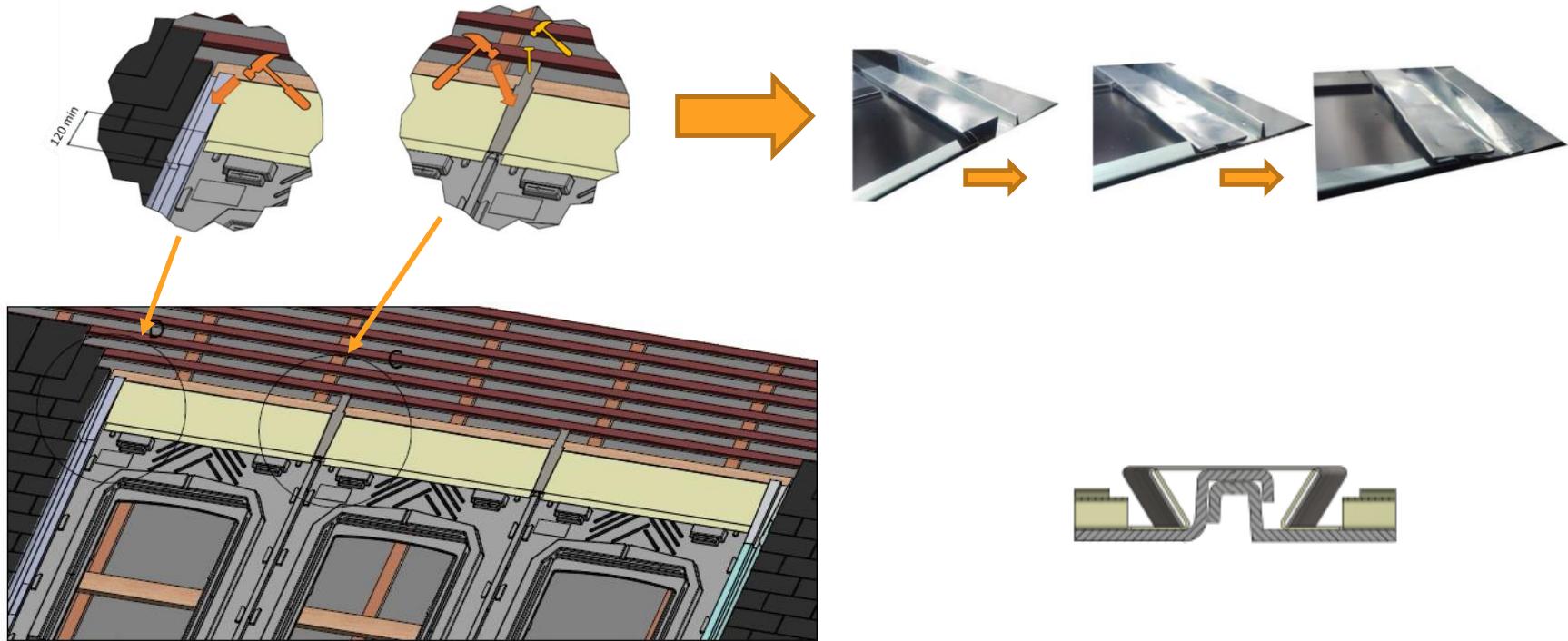
GSE In-roof V. A-1 – Installatie

➤ Stap 4 : Hoek afdichting



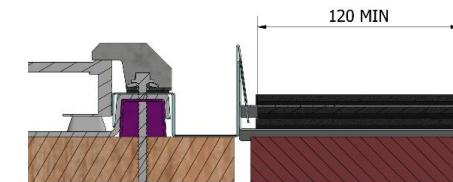
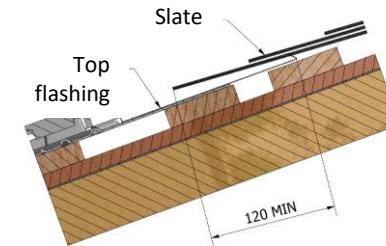
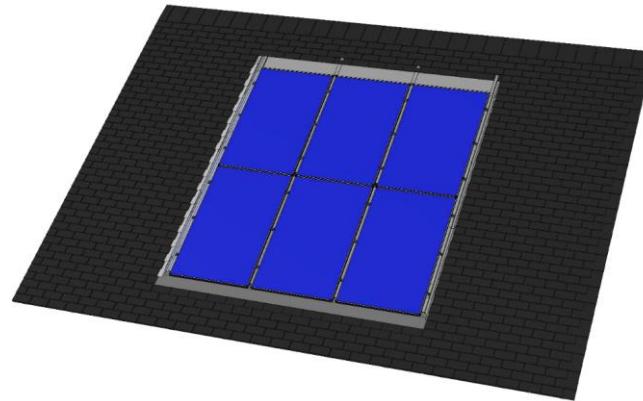
GSE In-roof V. A-1 – Instalation

- Stap 5 : Klik de bovenste verbinding en de hoekafdekkingen vast



GSE In-roof V. A-1 – Installation

- Laatste stap: Plaats de dakelementen



Bedankt voor uw aandacht



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