



GSE TOIT SOLAIRE EVO™

V.TS-2, V.A-3 et V.TN-1

SYSTÈME D'INTÉGRATION POUR PANNEAUX PHOTOVOLTAÏQUES TRADITIONNELS

SIMPLE, RAPIDE, LÉGER,
ÉTANCHE ET COMPÉTITIF !



MADE IN FRANCE

www.gseintegration.com

GSE TOIT SOLAIRE EVO™

BÉNÉFICES

- Economique : système intégré le plus compétitif pour les rénovations de toits et les nouvelles constructions
- Facile à mettre en œuvre : un kit de 10 à 16 panneaux s'installe en 6h environ
- Léger et peu encombrant : 116 demi-plaques par palette

PRODUIT CERTIFIÉ DANS DE NOMBREUX PAYS

- Etanchéité parfaite et durable de la centrale et de la toiture
- Ventilation optimale
- Résistance mécanique très importante

SPÉCIFICATIONS TECHNIQUES



Poids
2,8 à 3,7 kg/m²



Plage de Température
-30°C à 100°C



Matière
PP - Aluminium - Inox
(100% Recyclable)



Pente
13,5° à 45°
et 25° à 45°
pour les modules d'une longueur supérieure à 1720 mm

ABERGEMENTS DISPONIBLES :

- **TS-2 : GSE TOIT SOLAIRE** destiné aux tuiles galbées (tuiles Sud)
- **A-3 : GSE TOIT SOLAIRE** destiné aux ardoises
- **TN-1 : GSE TOIT SOLAIRE** destiné aux tuiles à pureau plat (tuiles Nord)



NOS TESTS & CERTIFICATIONS

CHUBB



- **Assurance RC produit et exploitation** : Responsabilité Civile - CHUBB / **Assurance RC décennale** : RC décennale EPERS
- **CCFAT-CSTB** : ATEC N°21/23-83_V1 - "Toit Solaire evo" V.TS-2 : tuiles galbées, V.A-3 : ardoises, V.TN-1 : tuiles à pureau plat
- **TEST RESISTANCE AU FEU** : BROOF T3 validé



FORMATIONS



OUTILS



DOCUMENTATION



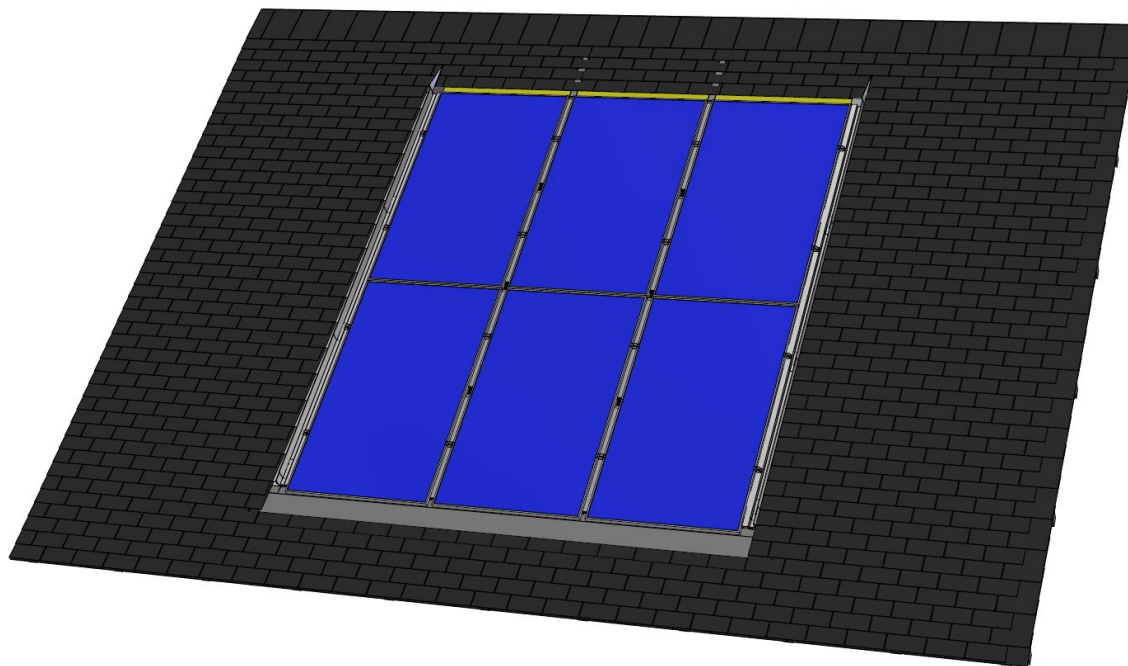
SUPPORT TECHNIQUE

Retrouvez tous nos outils et services sur

GSE
Intégration

www.gseintegration.com



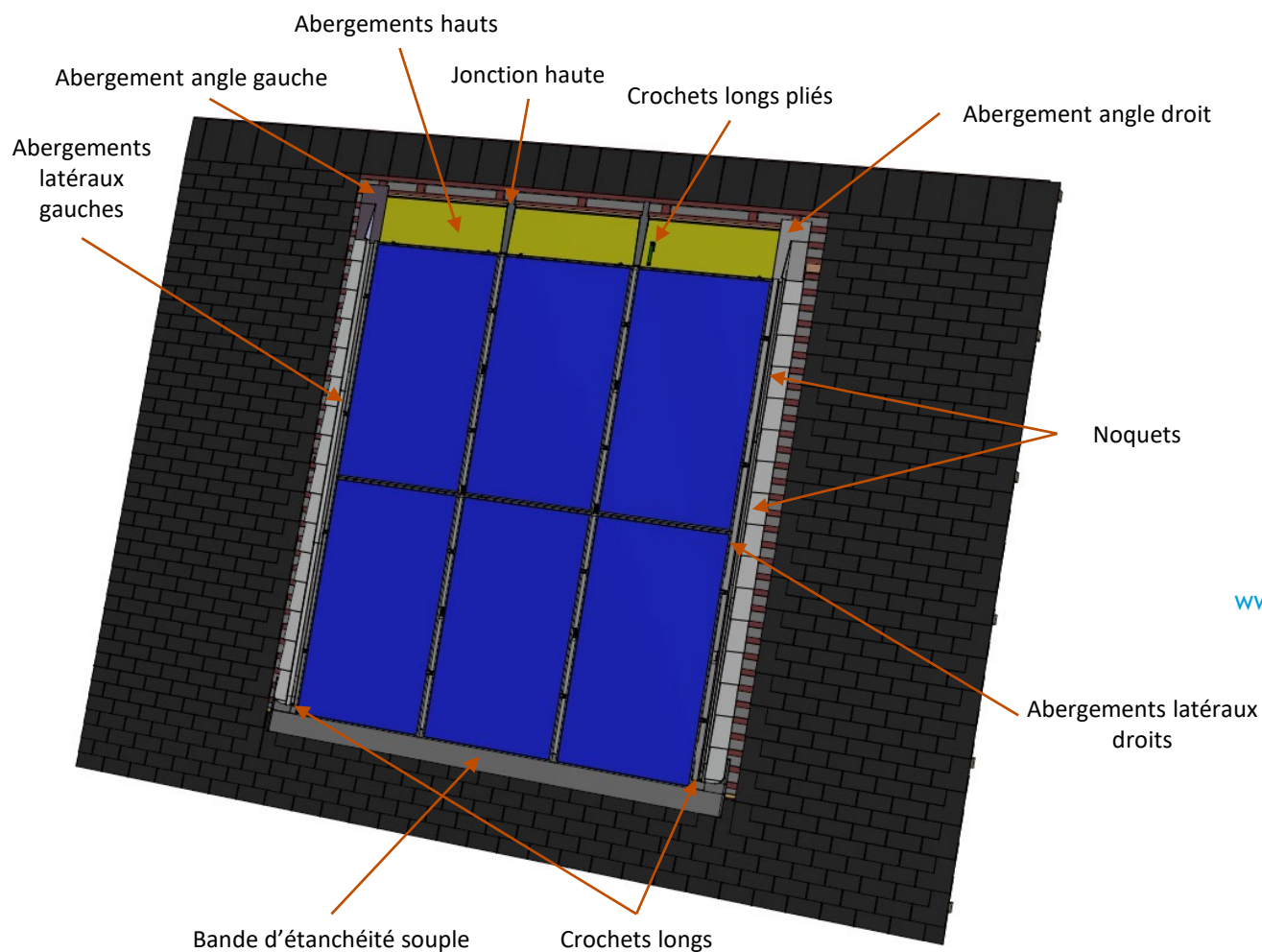


GSE Intégration « Toit Solaire » Evo V. A-2

Guide d'installation Ardoise

28/09/2023

Kit A-2 - Présentation générale



➤ Spécifications



Paysage



Portrait

Grille des modules

www.cstb.fr/pdf/centrales/AO2383_V1_grilles.pdf

$1610 \leq H \text{ module DPo}_{1650_XXX} \leq 1763 \text{ mm}$

$1800 \leq H \text{ module DPo}_{1840_XXX} \leq 1900 \text{ mm}$



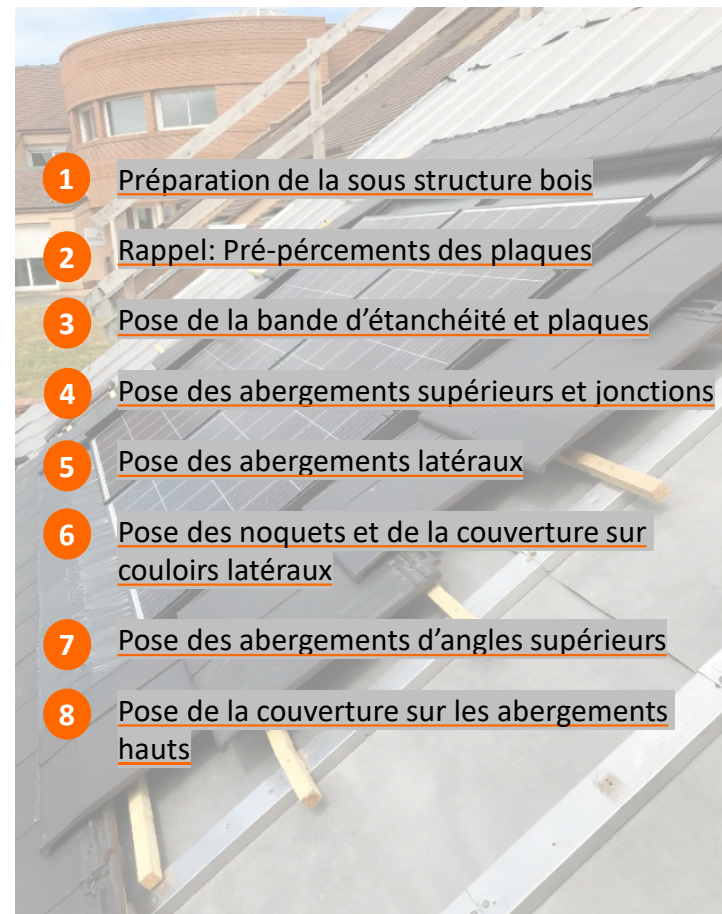
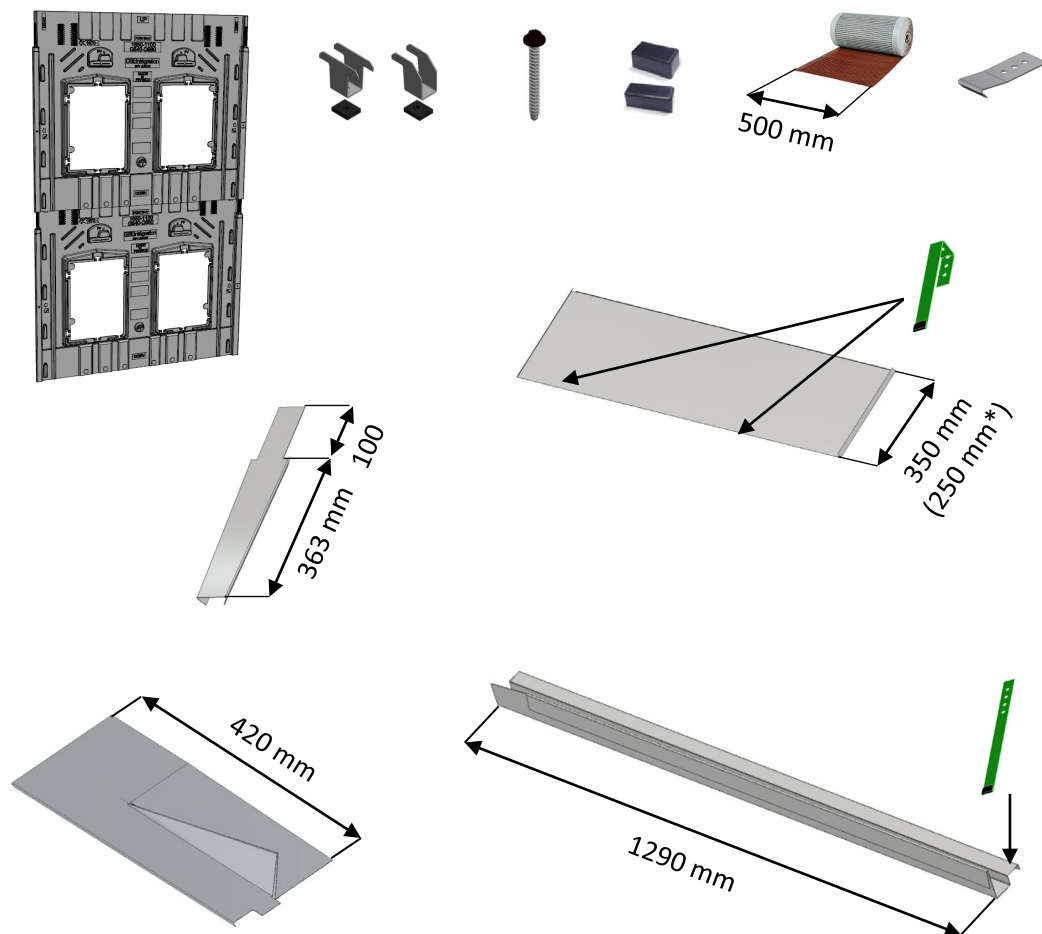
penne
14° à 45°



x 4

Kit A-2 - Liste des composants

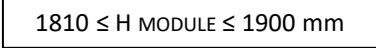
➤ Abergements du Kit A-2



DPo_1650_XXX

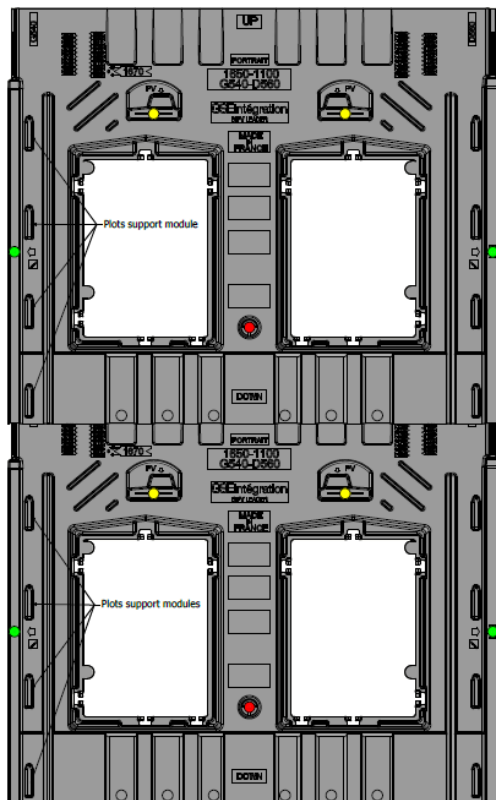


DPo_1840_XXX

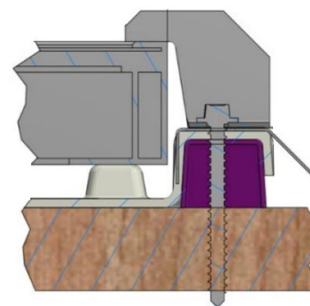
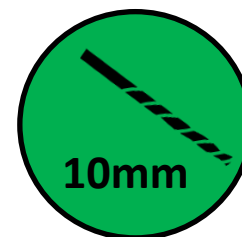


2 Kit A-2 - Pré-perçements des plaques

Les pré-perçements sont indispensables à la gestion de la dilatation des plaques en Polypropylène.

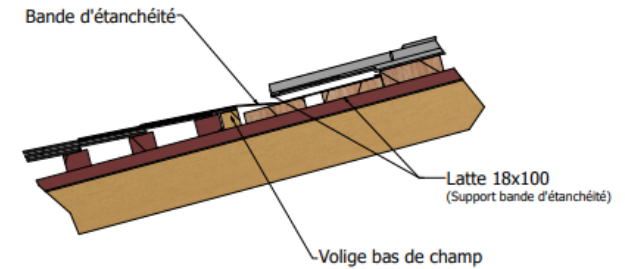


- Fixation plaque (trou percé usine à 6,5 mm)
- Fixation plaque (trou percé usine à 10 mm)
- Fixation Etrier (6 étriers) (pré-perçement 10 mm)

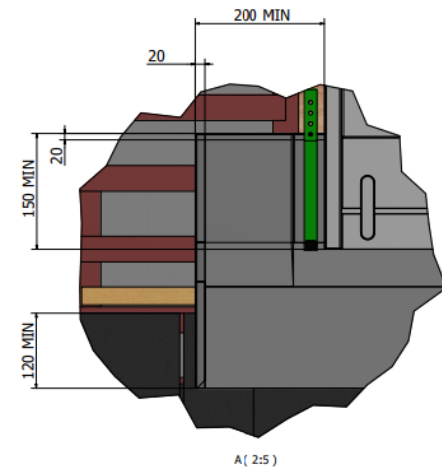


3 Kit A-2 - Pose de la bande d'étanchéité et plaques

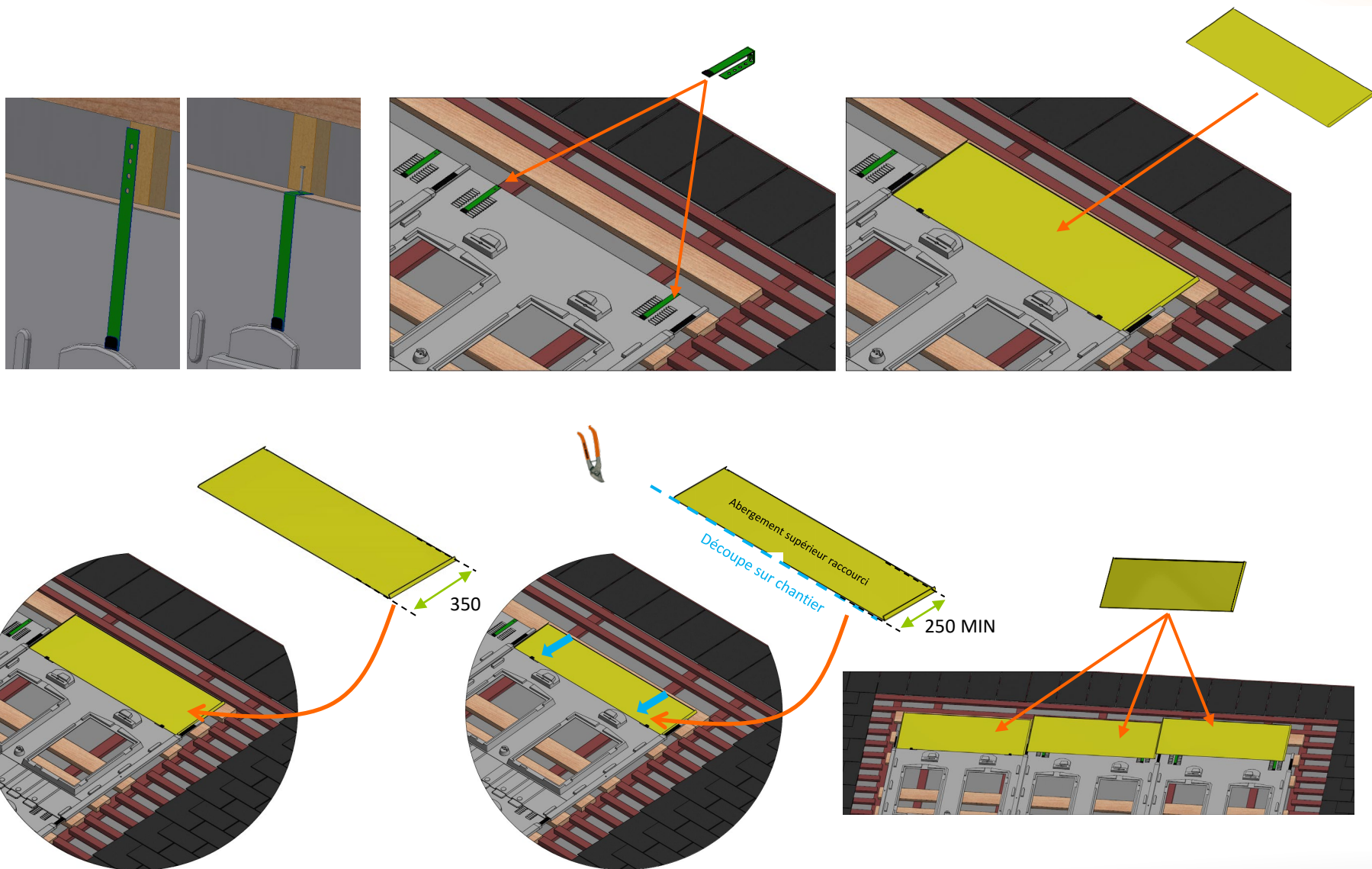
➤ Pose de la bande en milieu de champ



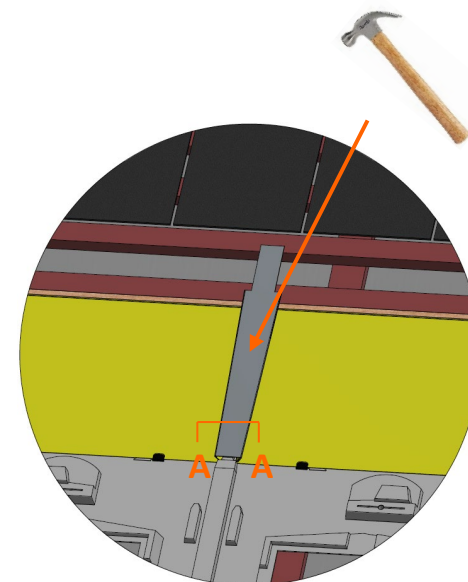
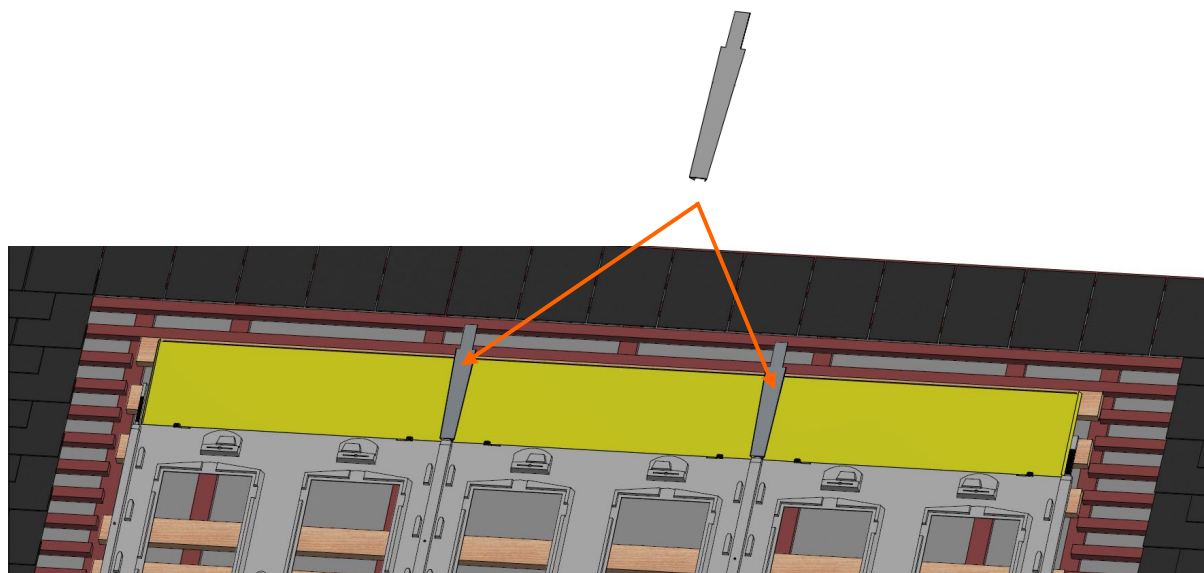
➤ Pose de la bande au niveau du couloir



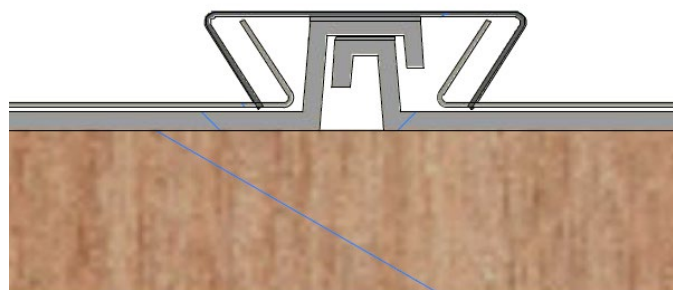
4 Kit A-2 - Pose des abergements supérieurs



4 Kit A-2 - Pose des jonctions supérieures

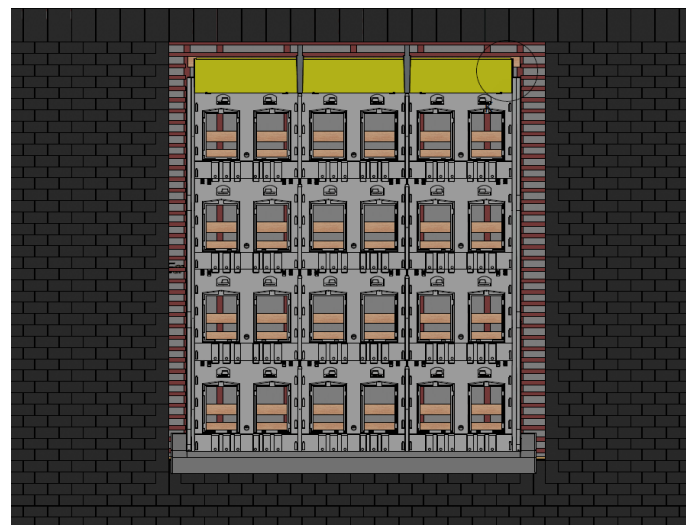
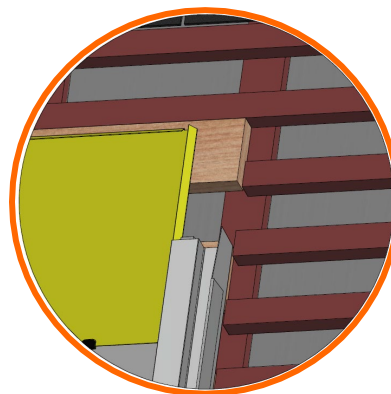
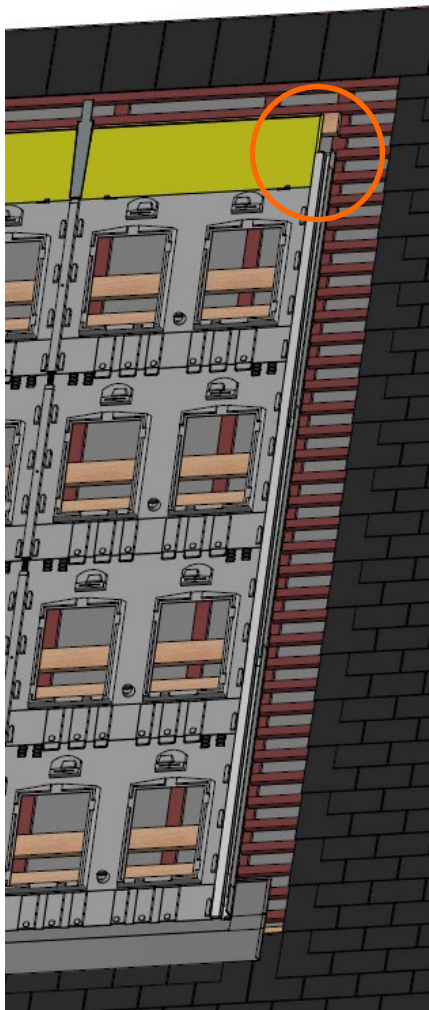


A-A (1 : 2)



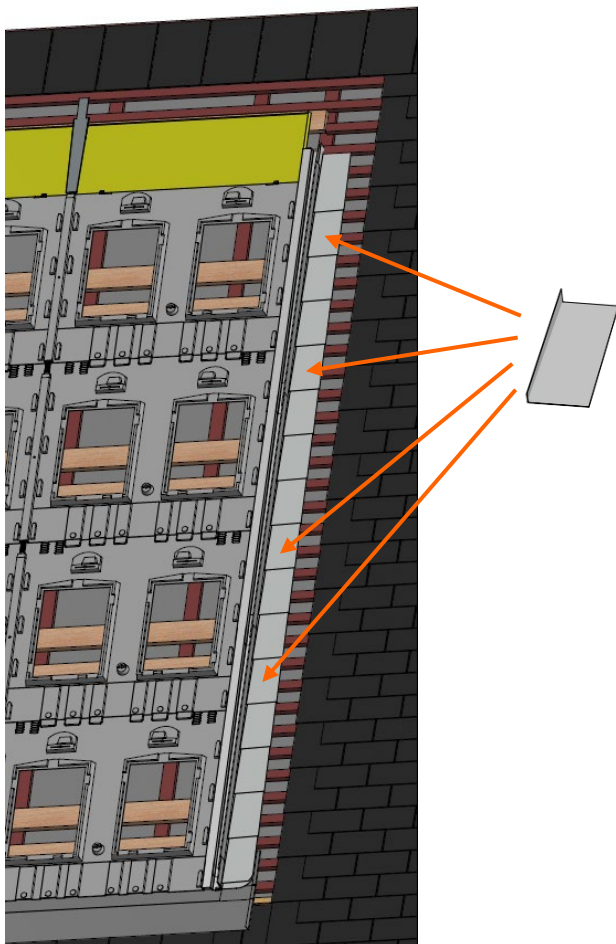


5 Kit A-2 - Pose des abergements latéraux

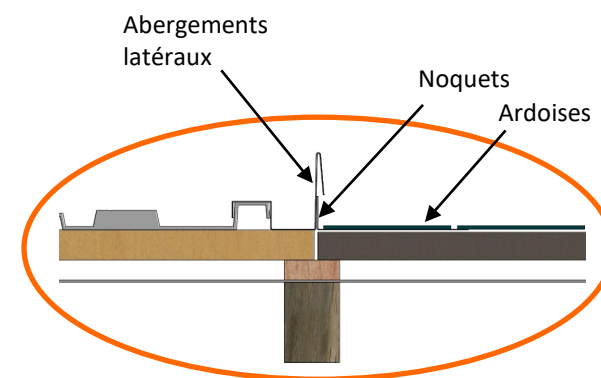
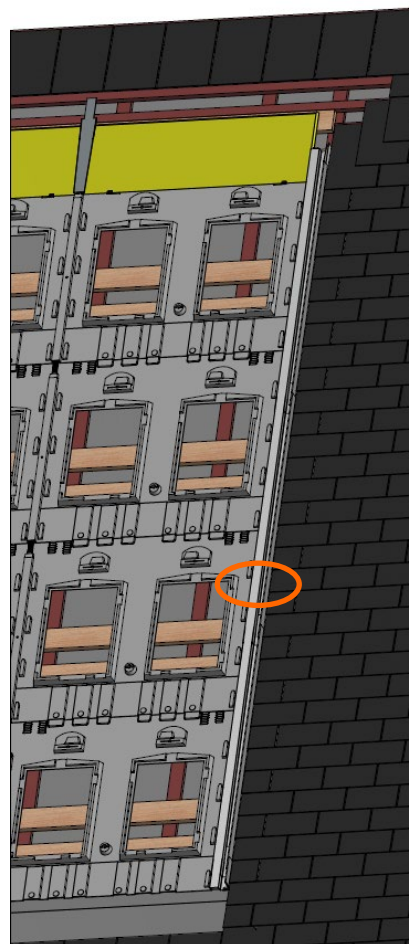


6 Kit A-2 - Pose des noquets et couverture sur couloirs latéraux

➤ Pose des noquets



➤ Pose de la couverture



7 Kit A-2 - Pose des abergements d'angles supérieurs



Noquet

- Mise place du noquet haut:



- Positionnement de l'abergement d'angle:

L'abergement d'angle supérieur recouvre l'abergement latéral sur:

- en point haut: **60 mm**
- en point bas: **150 mm**

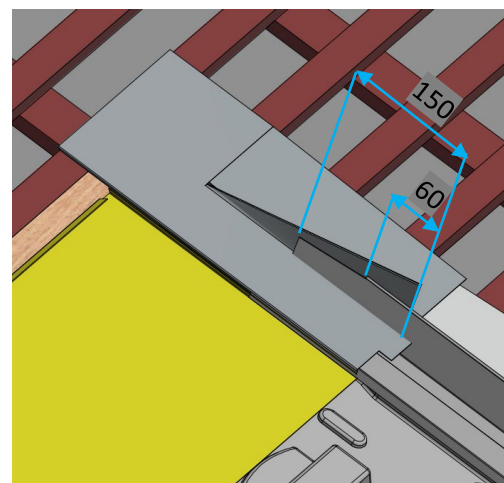


Fig 1. Cotes de recouvrement



Fig 2. Mise en position

7 Kit A-2 - Pose des abergements d'angles supérieurs



➤ Découpage et pliage des abergements d'angles:



Découper la partie supérieure
(si besoin)

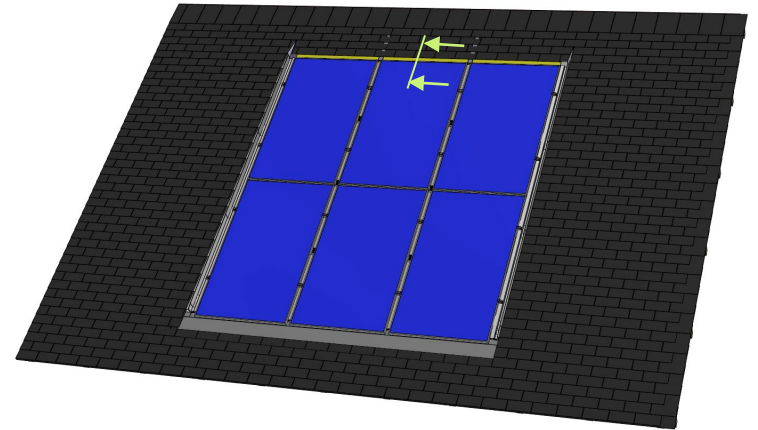
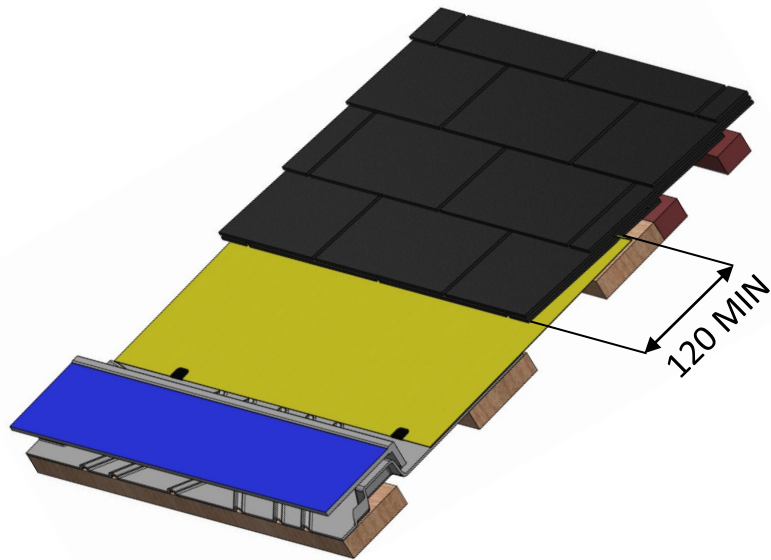


Plier la patte inférieure

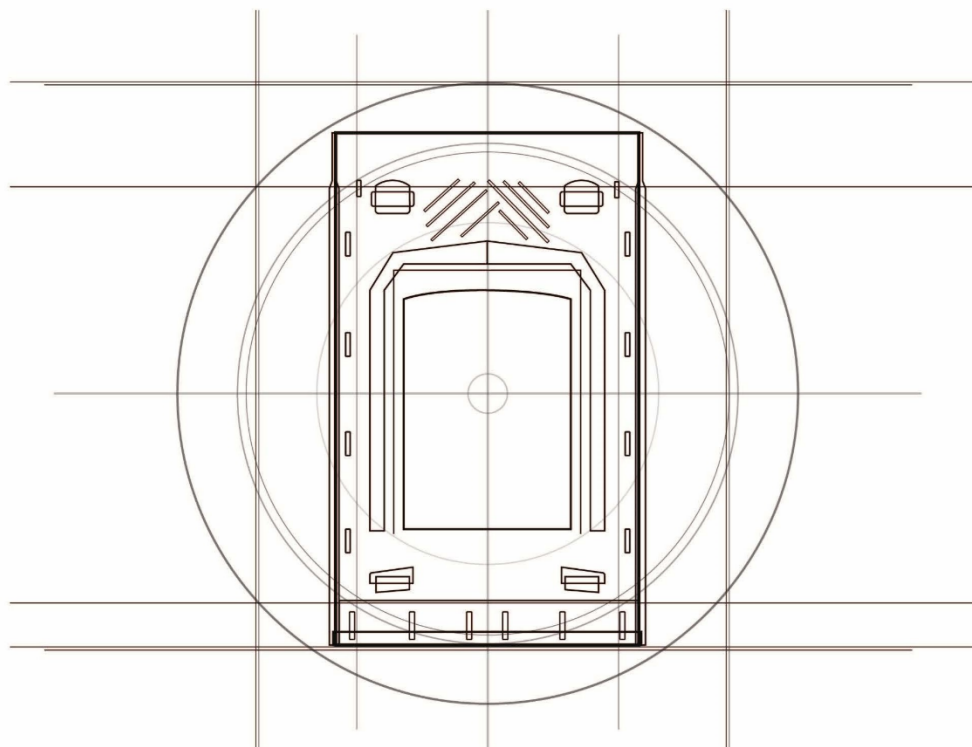


Plier de l'aileron
(à mi hauteur, de façon
Faire un pli à 180°)

8 Kit A-2 - Pose de la couverture sur les abergements hauts

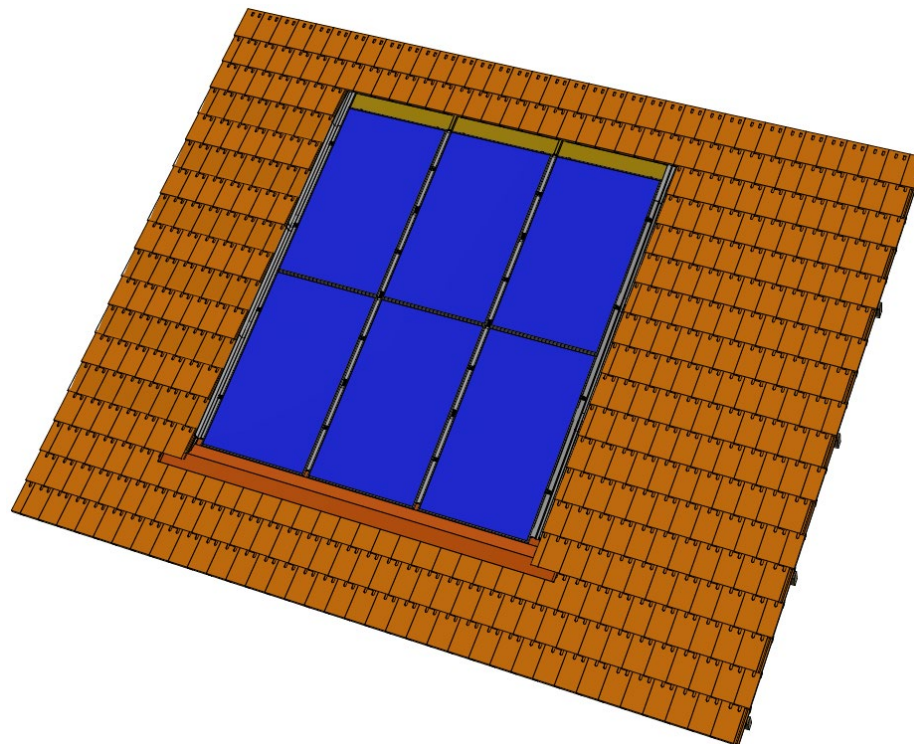


Guide d'installation Kit Ardoise A-2



Support technique disponible :
Lun – Ven : 09:30 – 18:00

Tel.: +33(0)1.70.32.08.05
E-Mail: technical.support@gseintegration.com



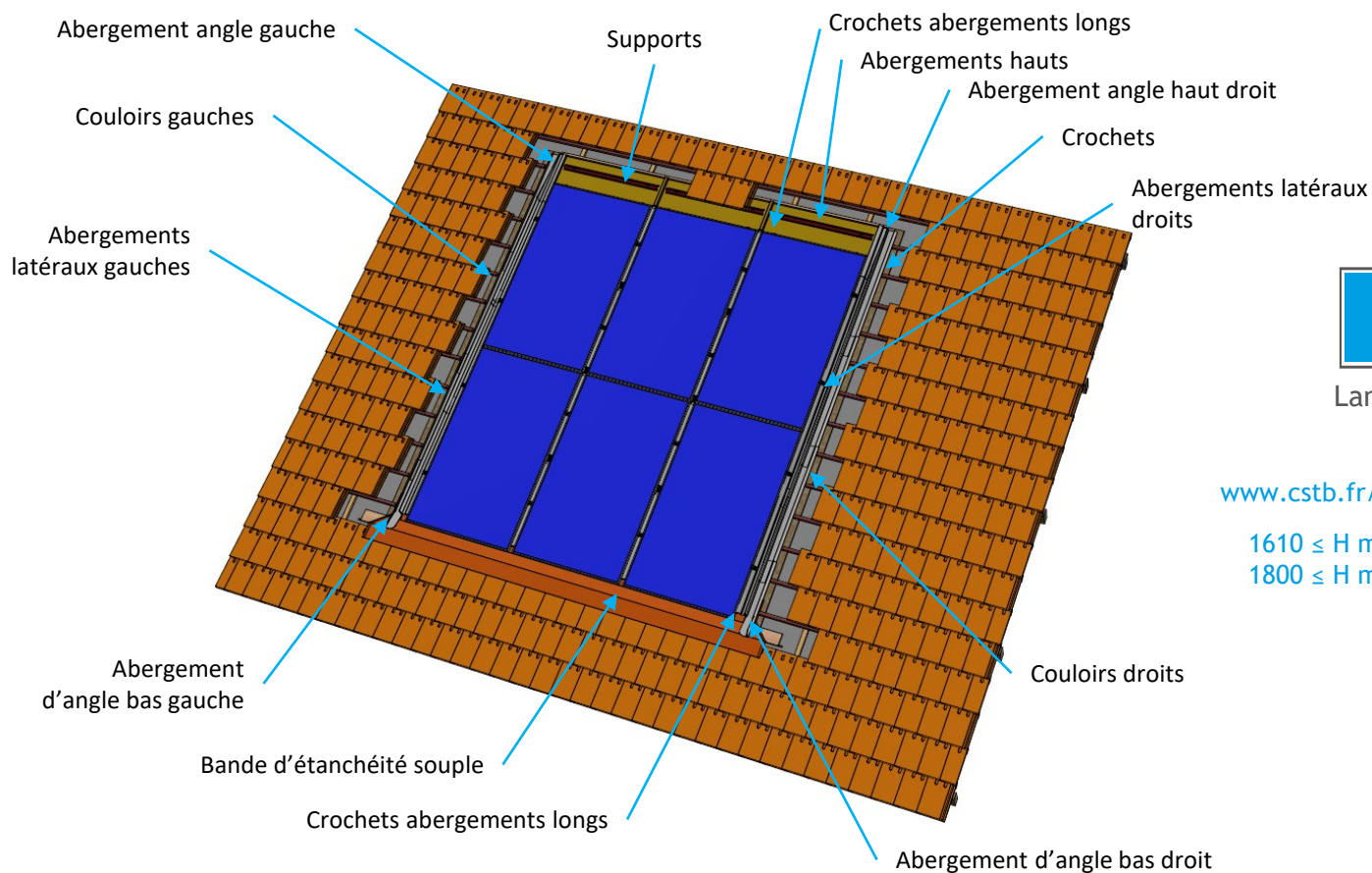
GSE Intégration « Toit Solaire » Evo V. TN-1

Guide d'installation Tuiles Nord

28/09/2023

Kit TN-1 Présentation générale

➤ Spécifications



Landscape 



Portrait 

Grille des modules

www.cstb.fr/pdf/centrales/AO2383_V1_grilles.pdf

$1610 \leq H \text{ module DPo_1650_XXX} \leq 1763 \text{ MM}$

$1800 \leq H \text{ module DPo_1840_XXX} \leq 1900 \text{ MM}$



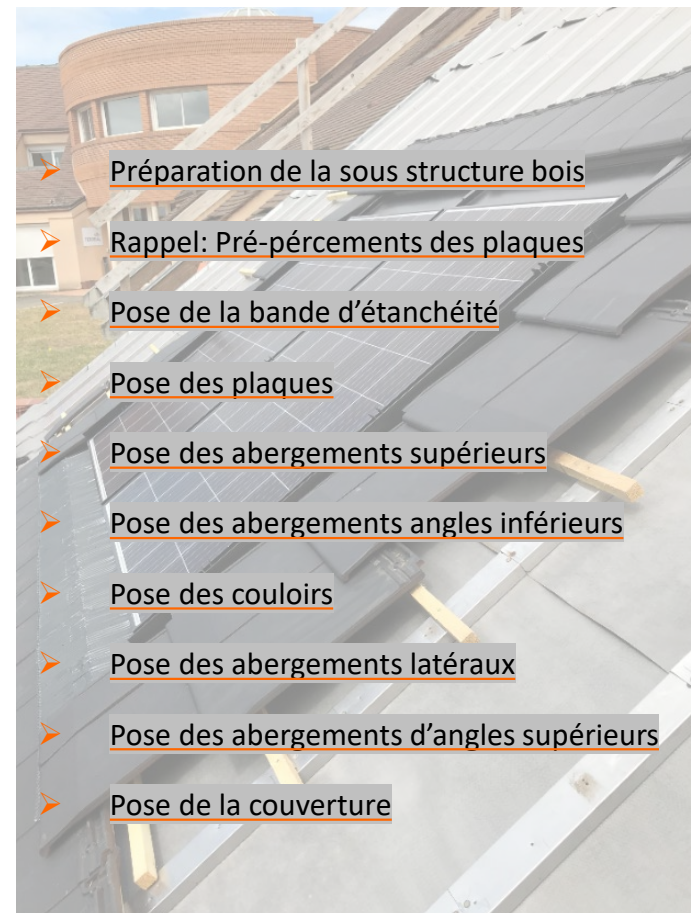
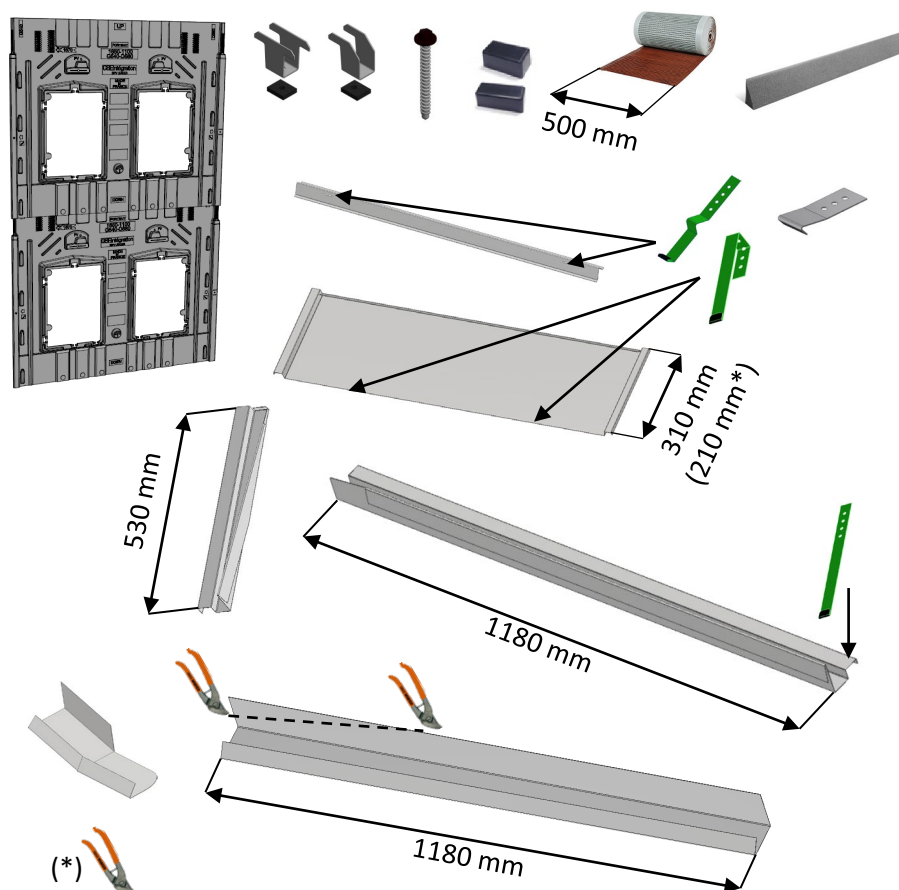
pente
19° à 45°



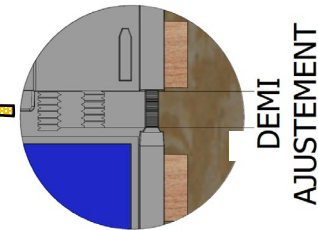
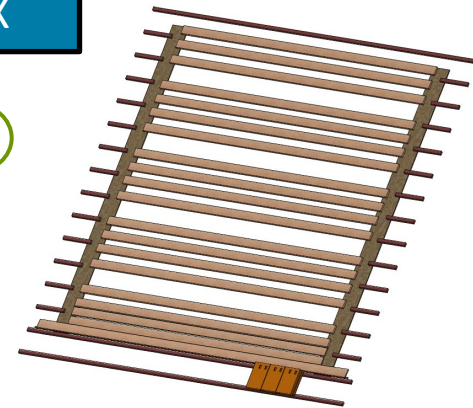
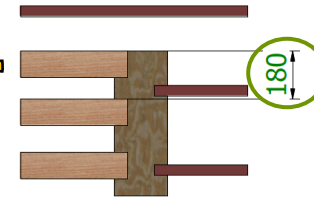
x 4

Kit TN-1 Liste des composants

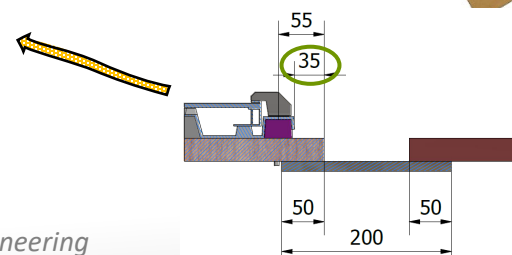
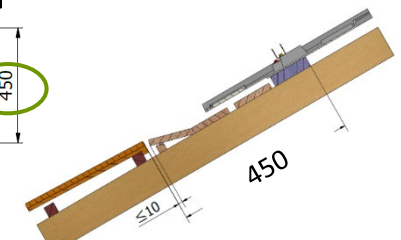
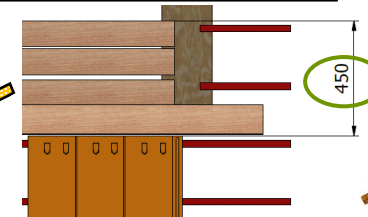
➤ Abergements du Kit TN1



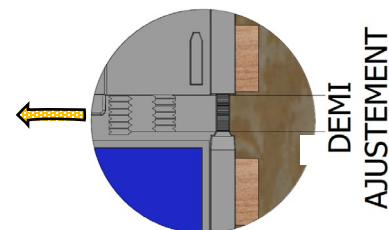
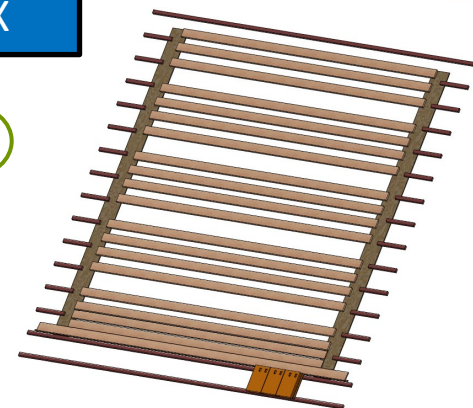
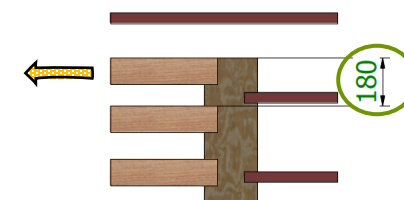
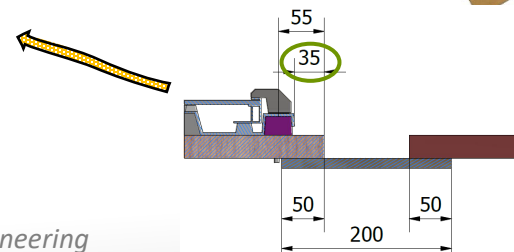
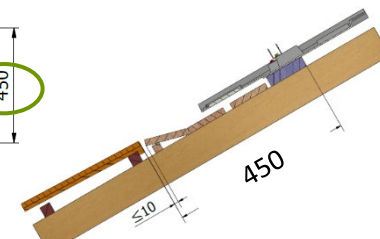
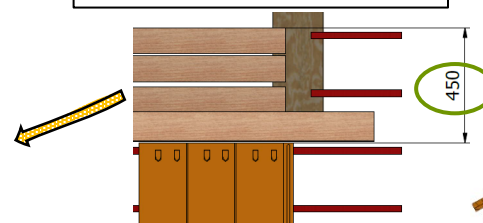
DPo_1650_XXX



DEMI
AJUSTEMENT

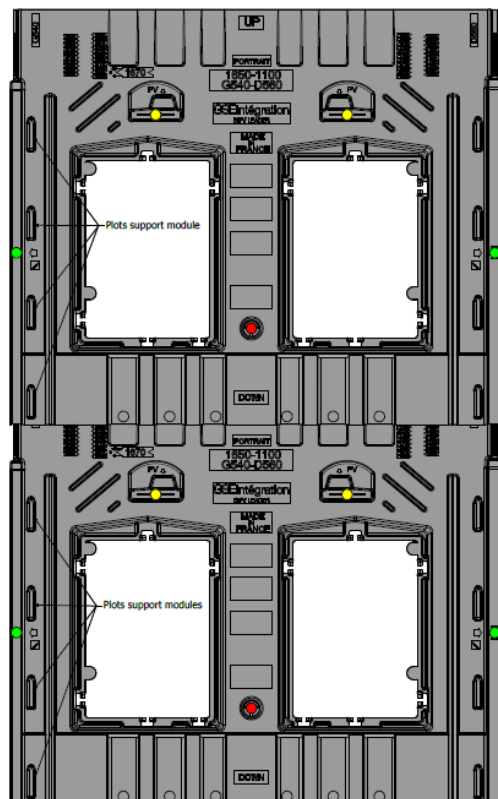
$$1610 \leq H \text{ MODULE} \leq 1763 \text{ mm}$$


DPo_1840_XXX

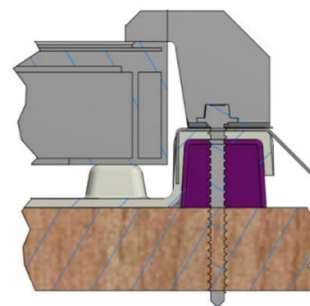
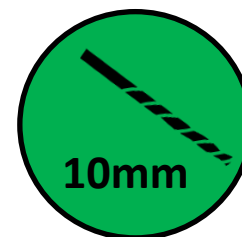

$$1800 \leq H_{\text{MODULE}} \leq 1900 \text{ mm}$$


Kit TN-1 Pré-perçements des plaques

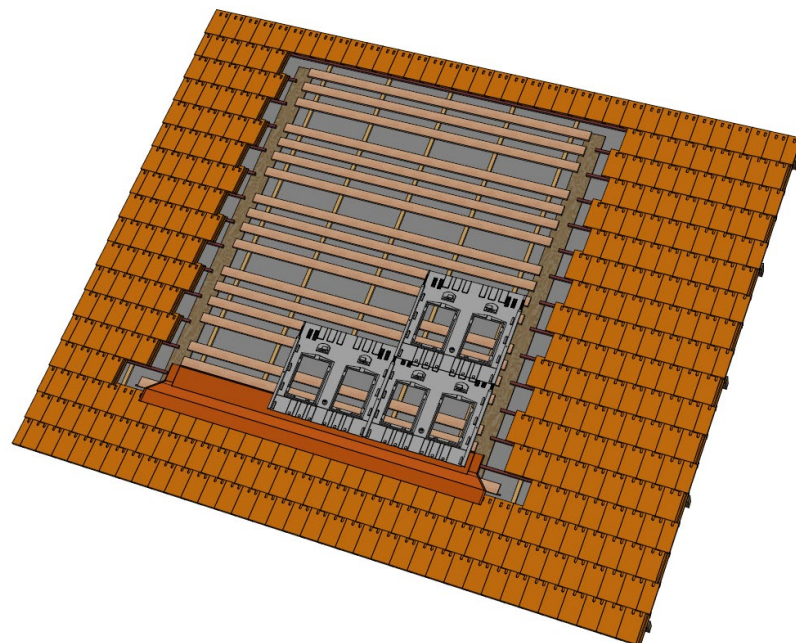
Les pré-perçements sont indispensables à la gestion de la dilatation des plaques en Polypropylène.



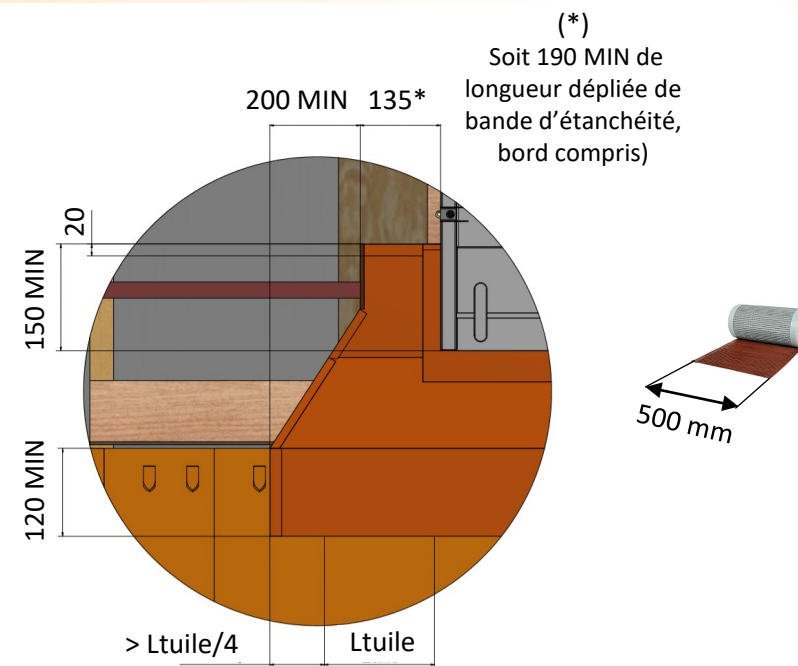
- Fixation plaque (trou percé usine à 6,5 mm)
- Fixation plaque (trou percé usine à 10 mm)
- Fixation Etrier (6 étriers) (pré-perçement 10 mm)



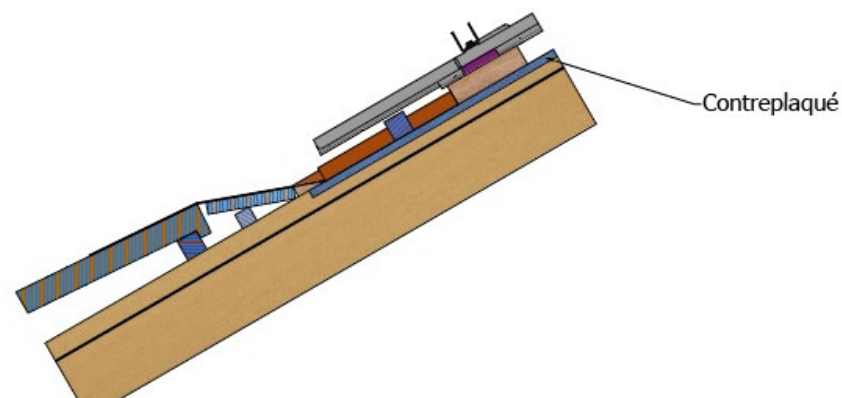
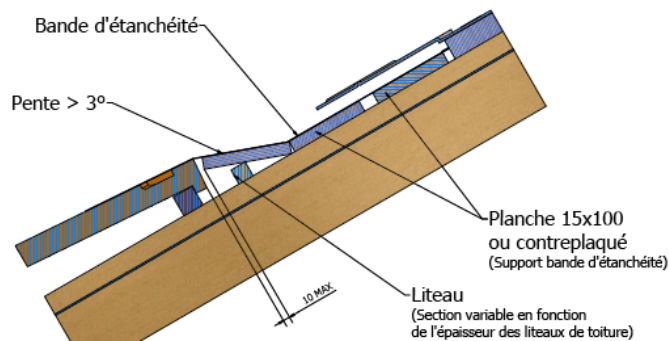
Kit TN-1 Pose de la bande d'étanchéité



➤ Pose de la bande en milieu de champ

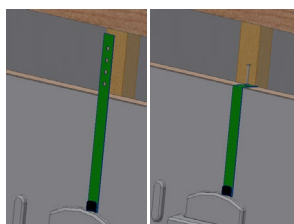
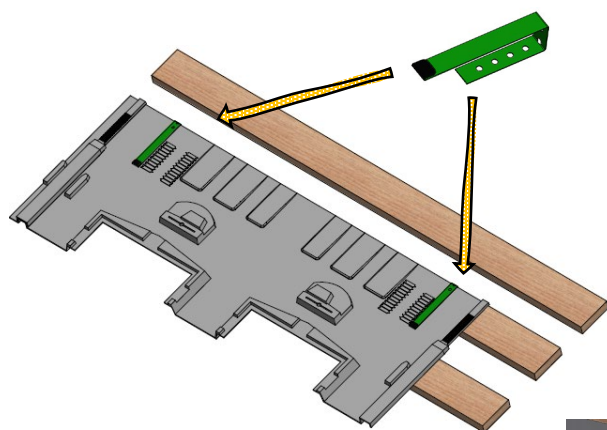


➤ Pose de la bande au niveau du couloir

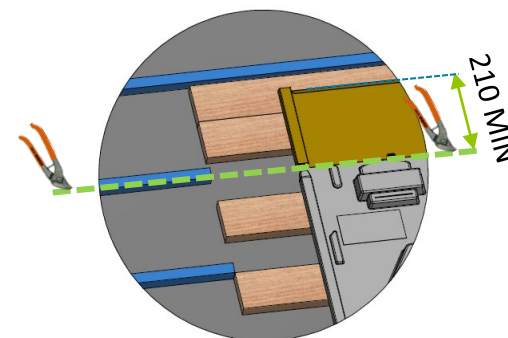
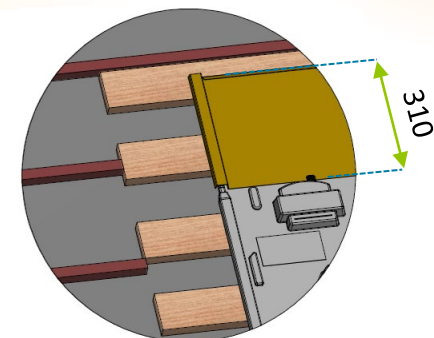
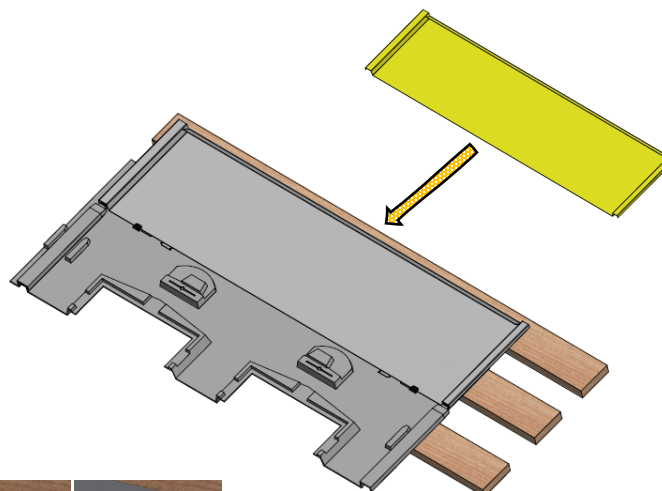


Kit TN-1 Pose des abergements supérieurs

1. Placer les crochets longs pour les abergements supérieurs
2. Couper/ Ajuster les crochets longs pour les abergements supérieurs
3. Insérer les abergements supérieurs dans les crochets

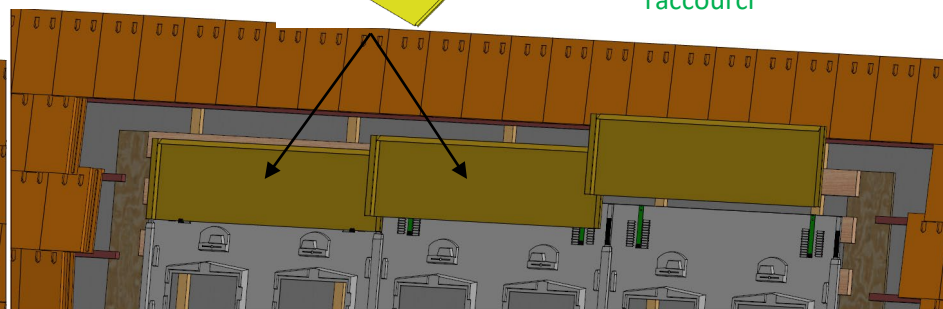
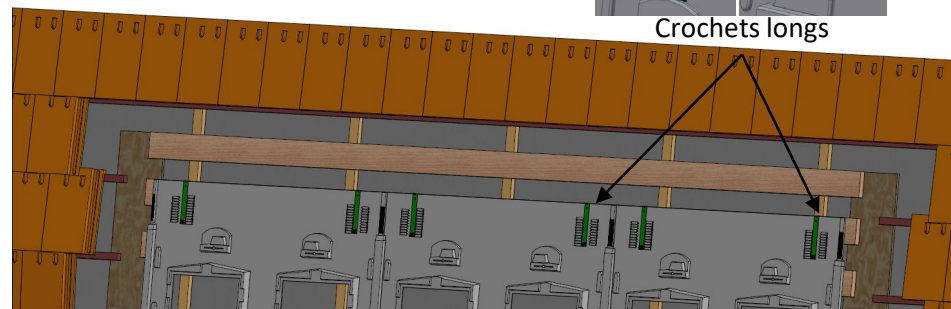


Crochets longs

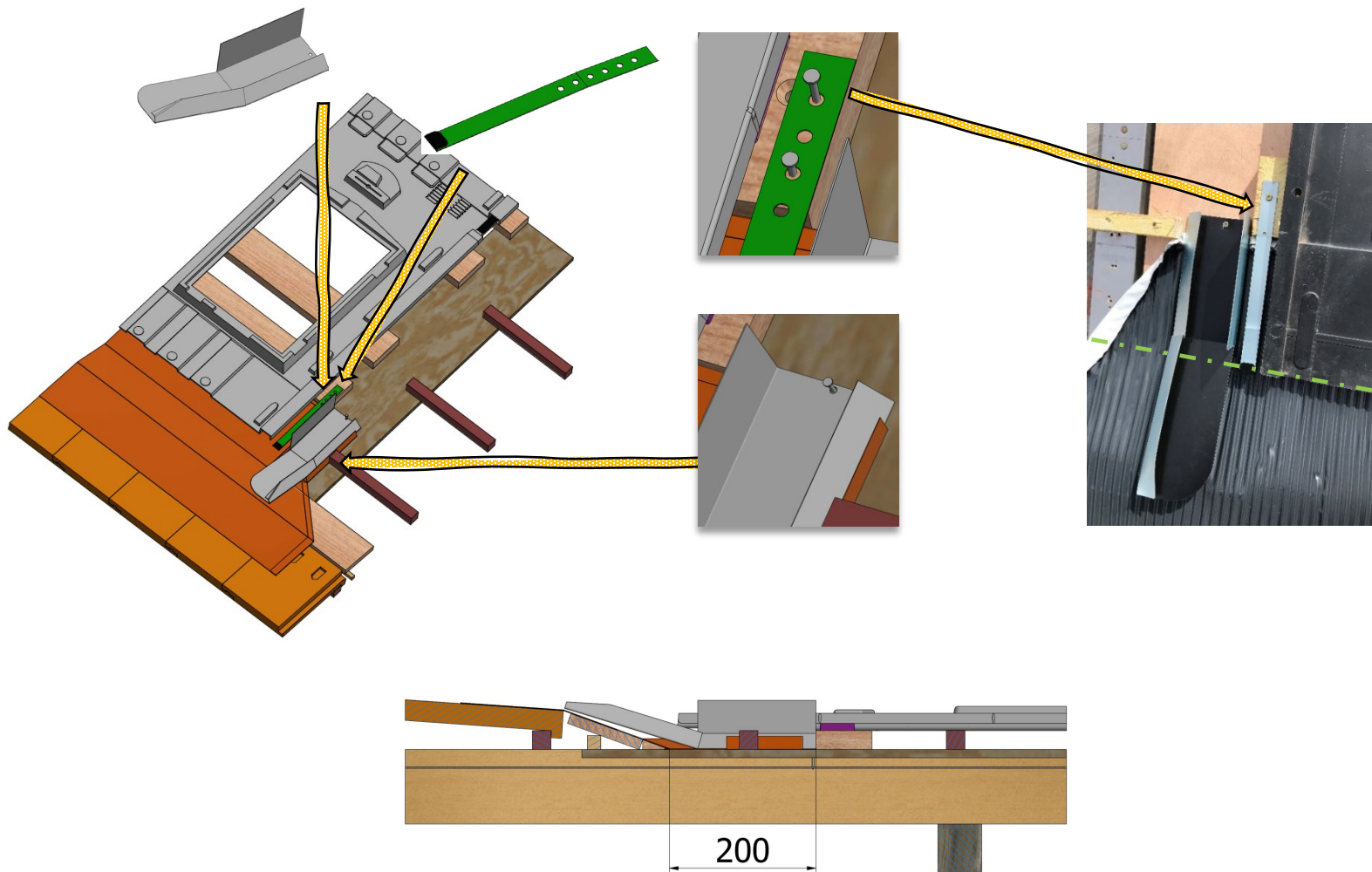


Découpe sur chantier:
Abergement supérieur
raccourci

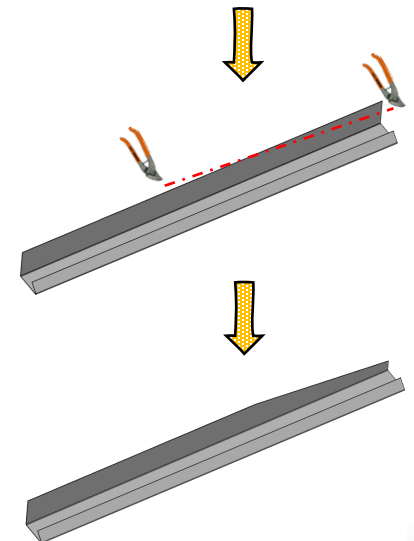
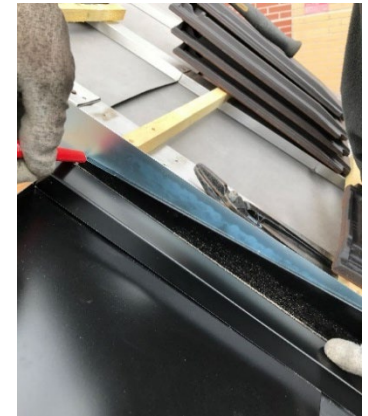
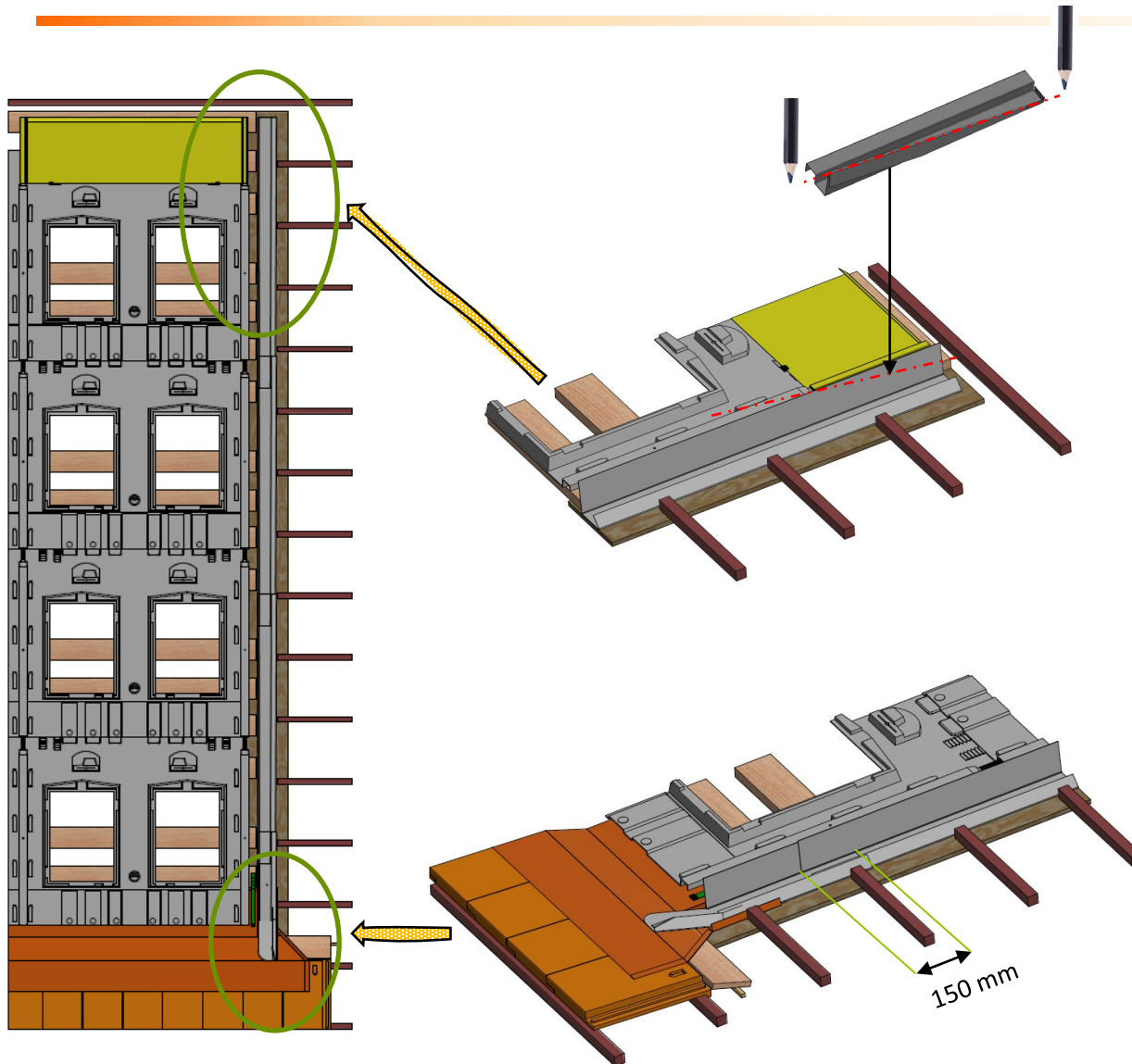
Abergements supérieurs



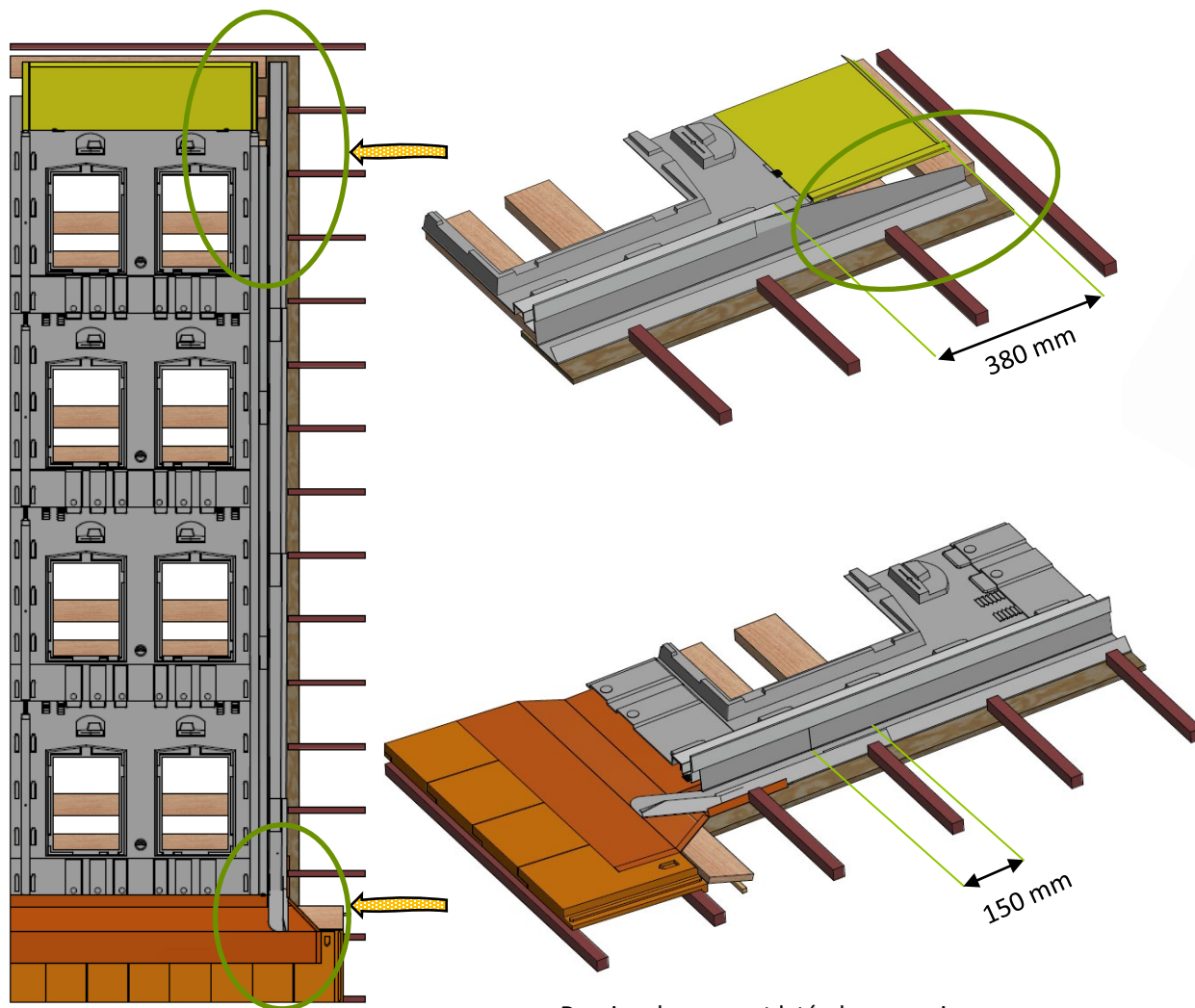
Kit TN-1 Pose des abergements d'angles inférieurs



Kit TN-1 Pose des couloirs

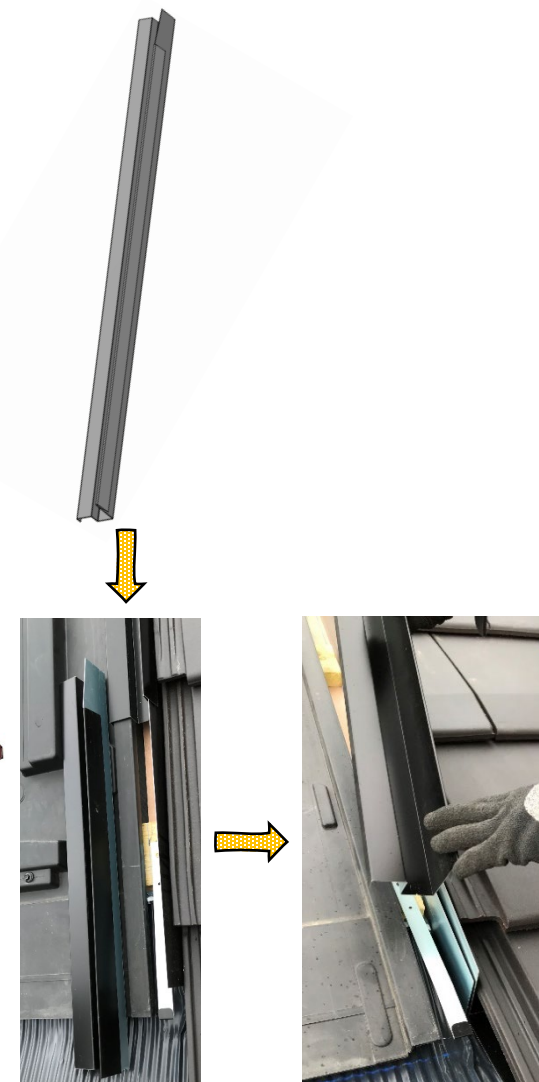


Kit TN-1 Pose des abergements latéraux

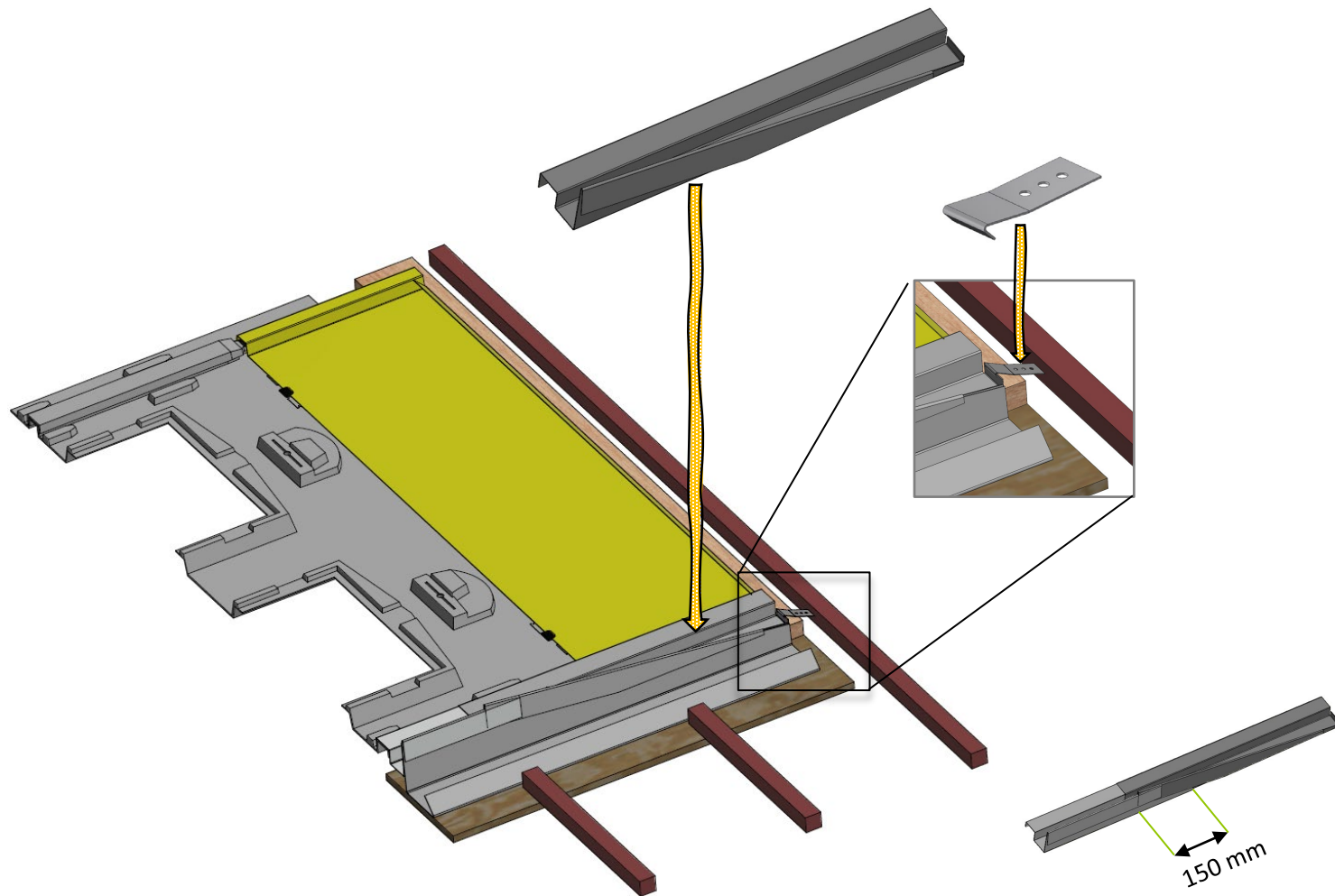


Dernier abergement latéral raccourci
(si besoin)

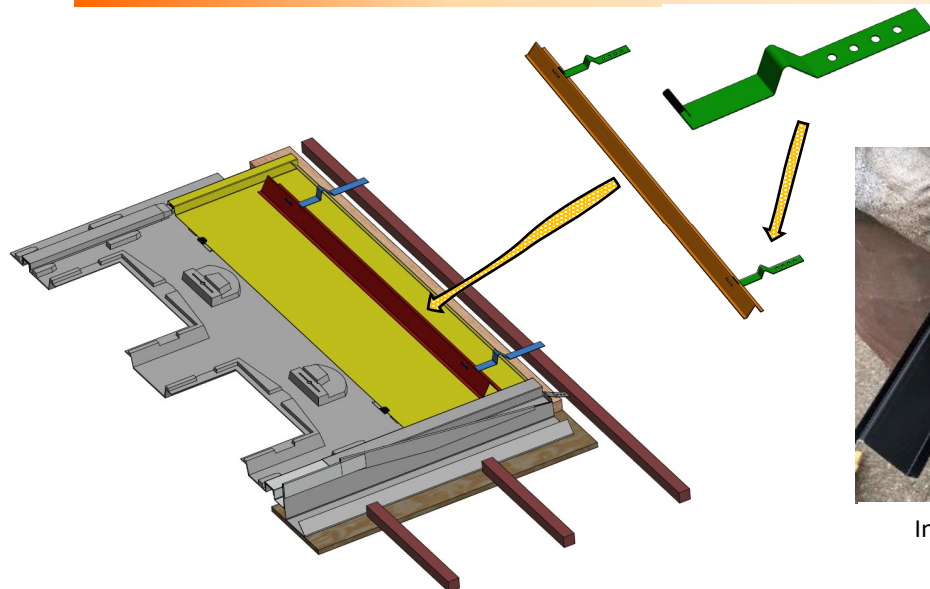
GSE Intégration - Engineering



Kit TN-1 Pose des abergements d'angles supérieurs



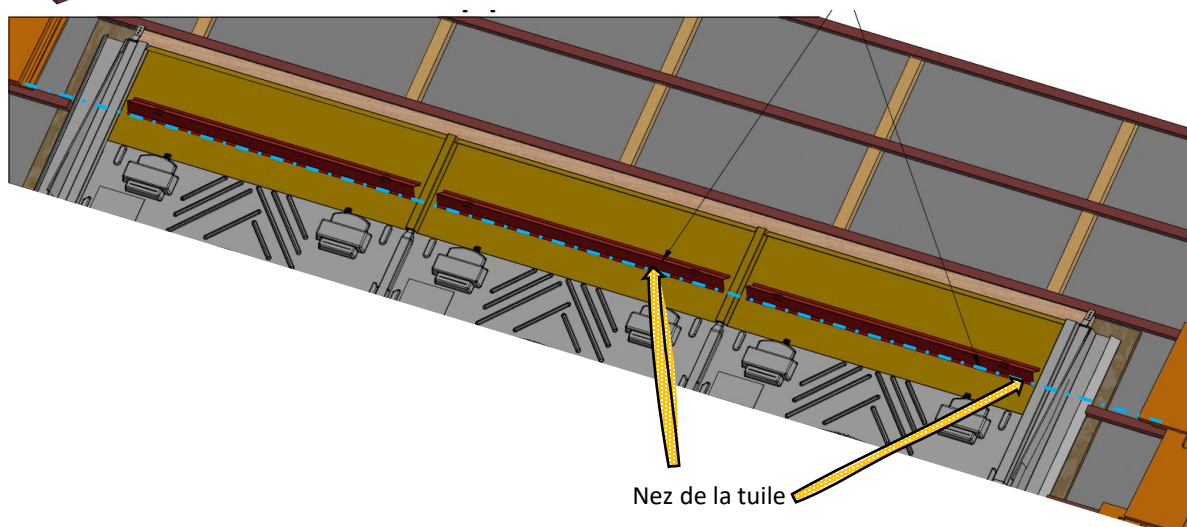
Kit TN-1 Pose des supports tuiles



Insérer le crochet long

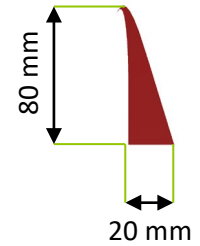
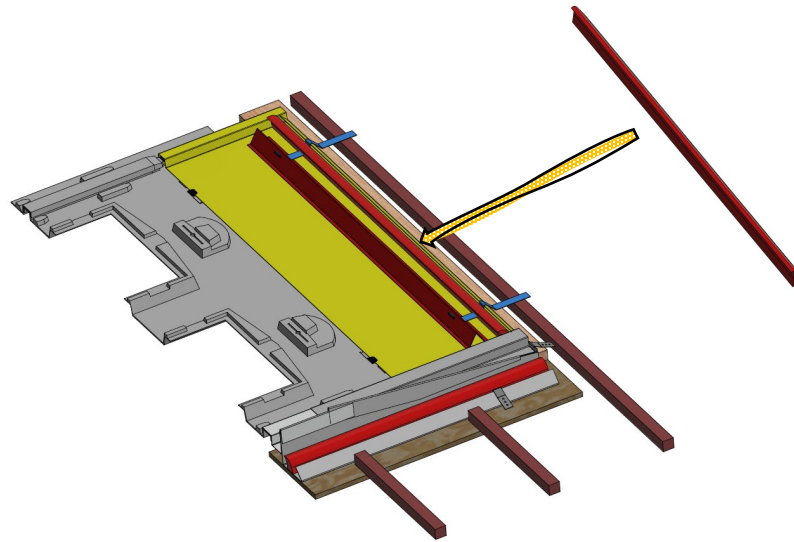


Fixer le crochet long

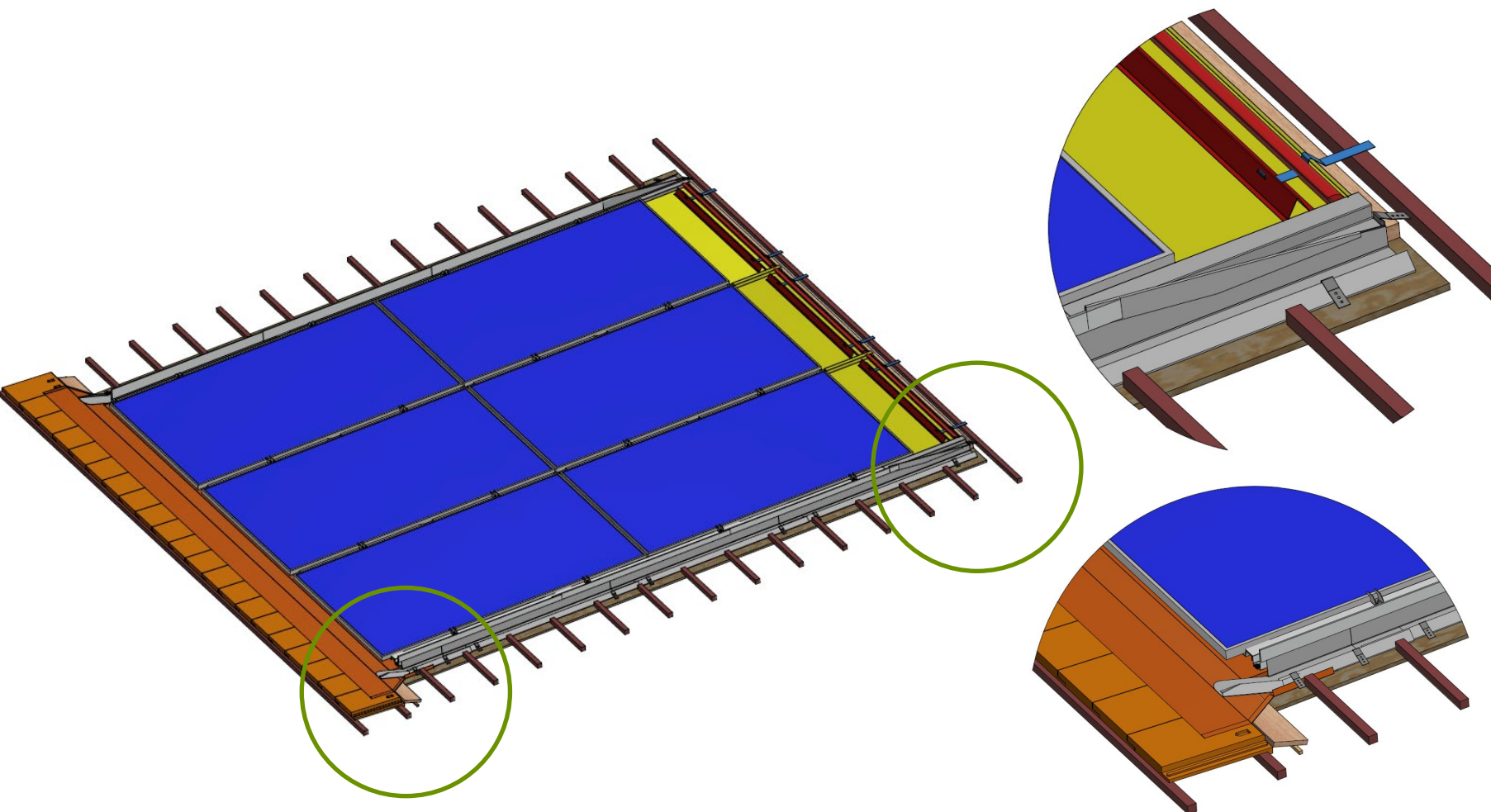


Nez de la tuile

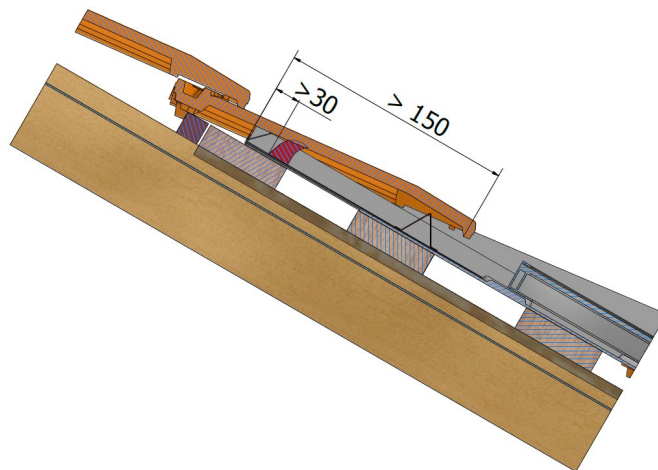
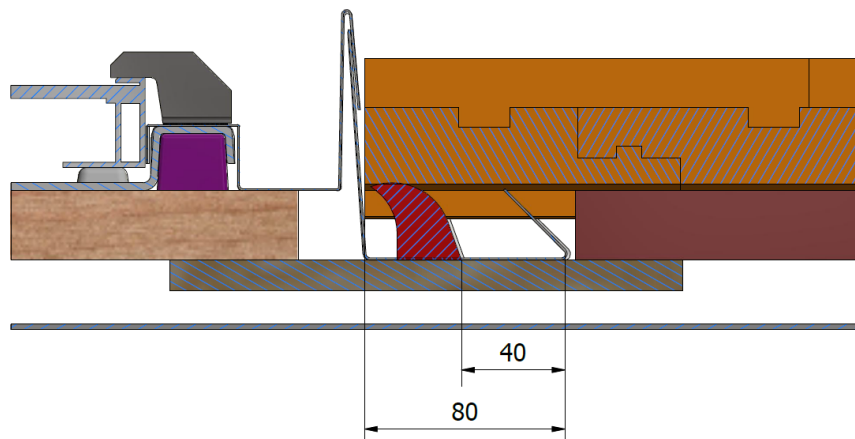
Kit TN-1 Pose des mousses triangulaires



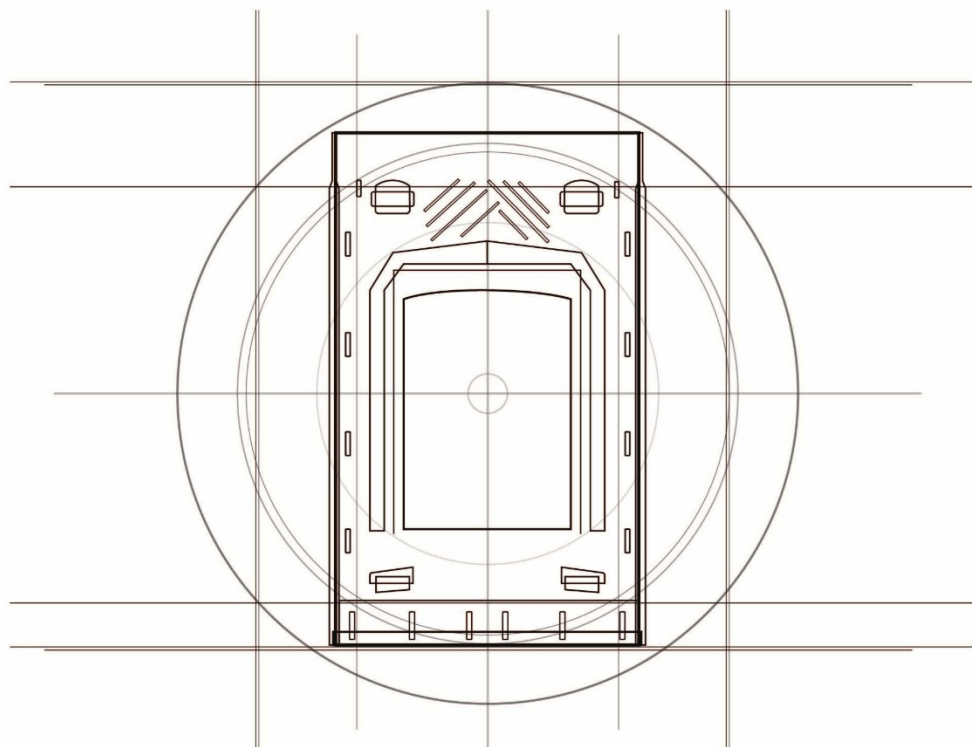
Kit TN-1 Détail de l'emplacement des crochets



Kit TN-1 Pose de la couverture

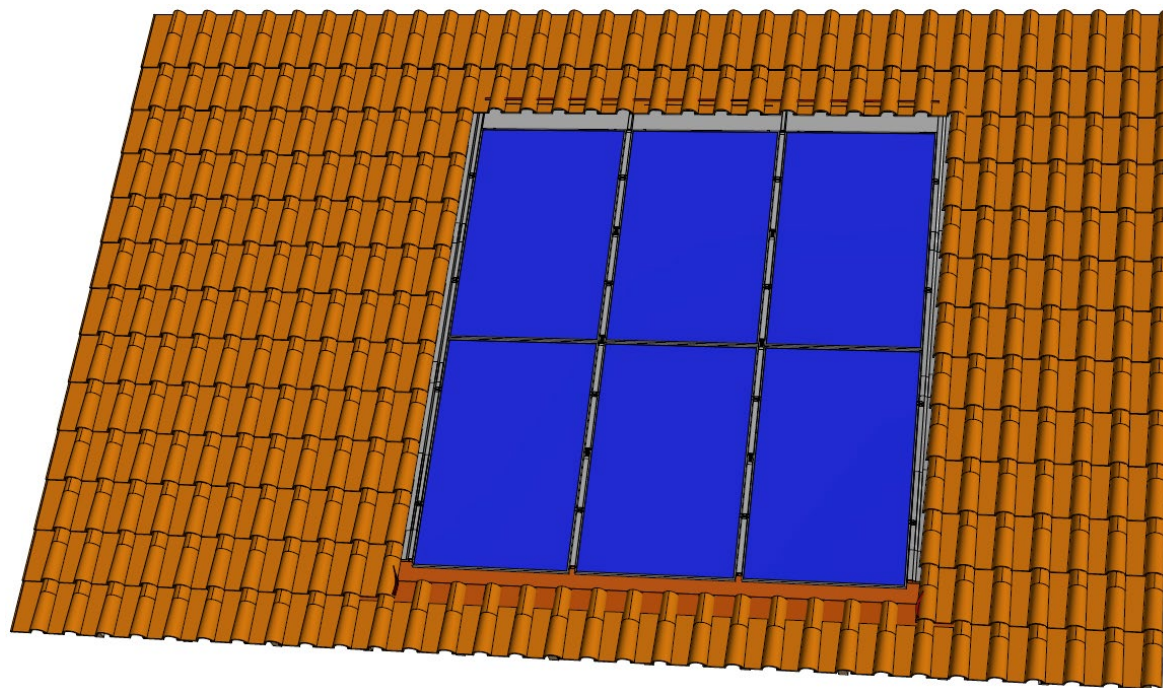


Guide d'installation Kit Tuiles Nord TN-1



Support technique disponible :
Lun – Ven : 09:30 – 18:00

Tel.: +33(0)1.70.32.08.05
E-Mail: technical.support@gseintegration.com



GSE Intégration « Toit Solaire » Evo V. TS-2

Guide d'installation Tuiles Sud

27/09/2023

Kit TS-2 - Présentation générale

➤ Spécifications



Landscape 



Portrait 

Grille des modules

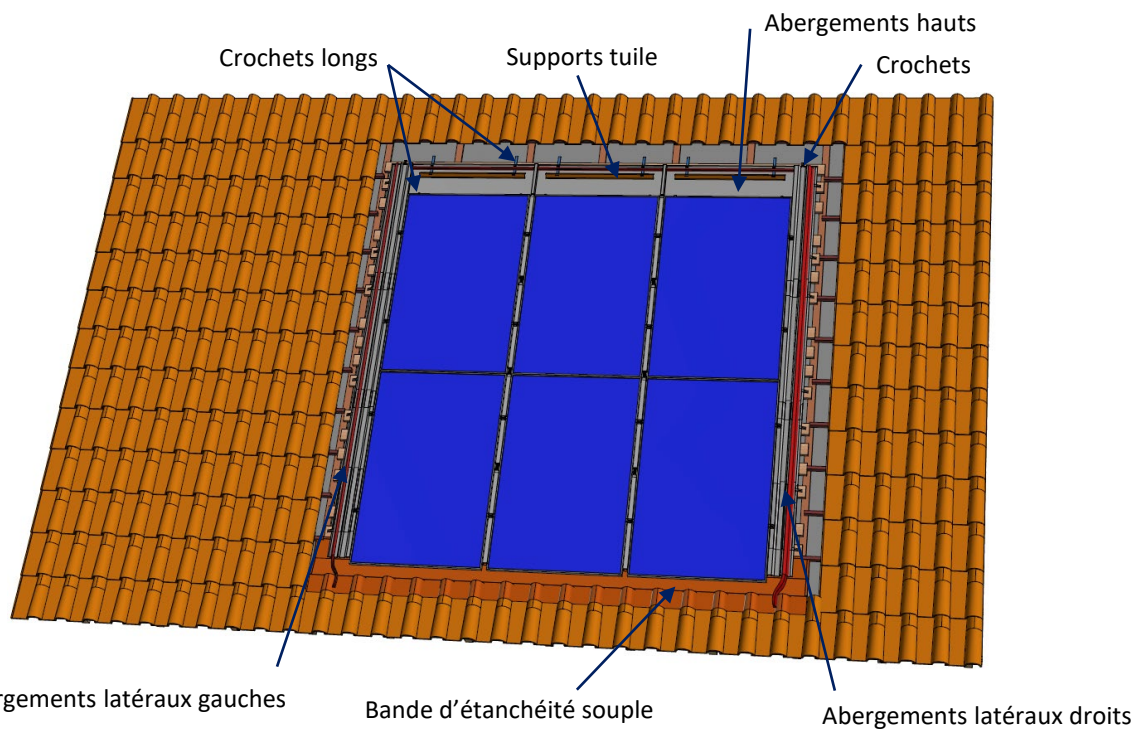
www.cstb.fr/pdf/centrales/AO2383_V1_grilles.pdf

$1610 \leq H \text{ module DPo}_{1650_XXX} \leq 1763 \text{ MM}$

$1800 \leq H \text{ module DPo}_{1840_XXX} \leq 1900 \text{ MM}$

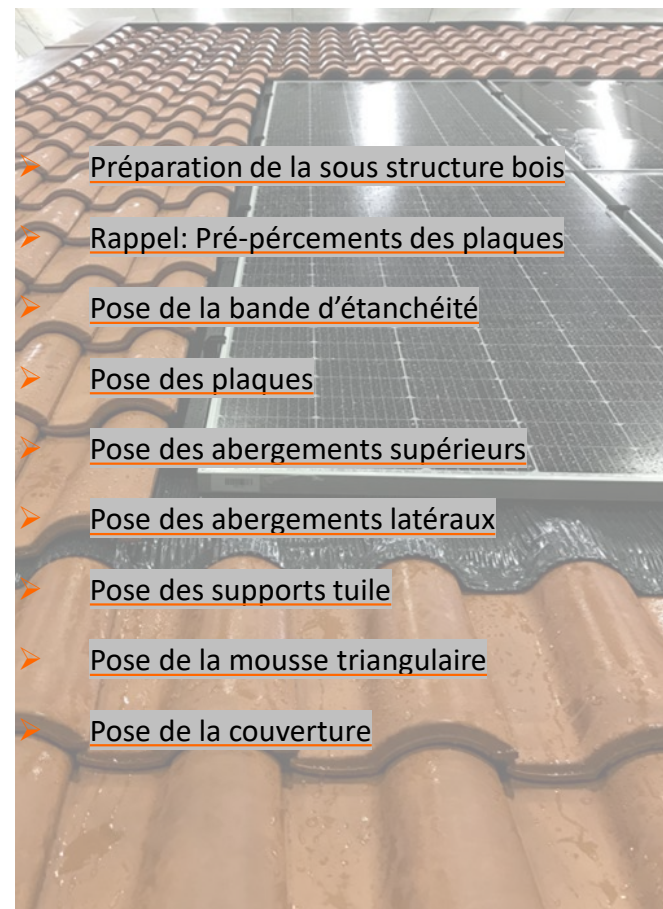
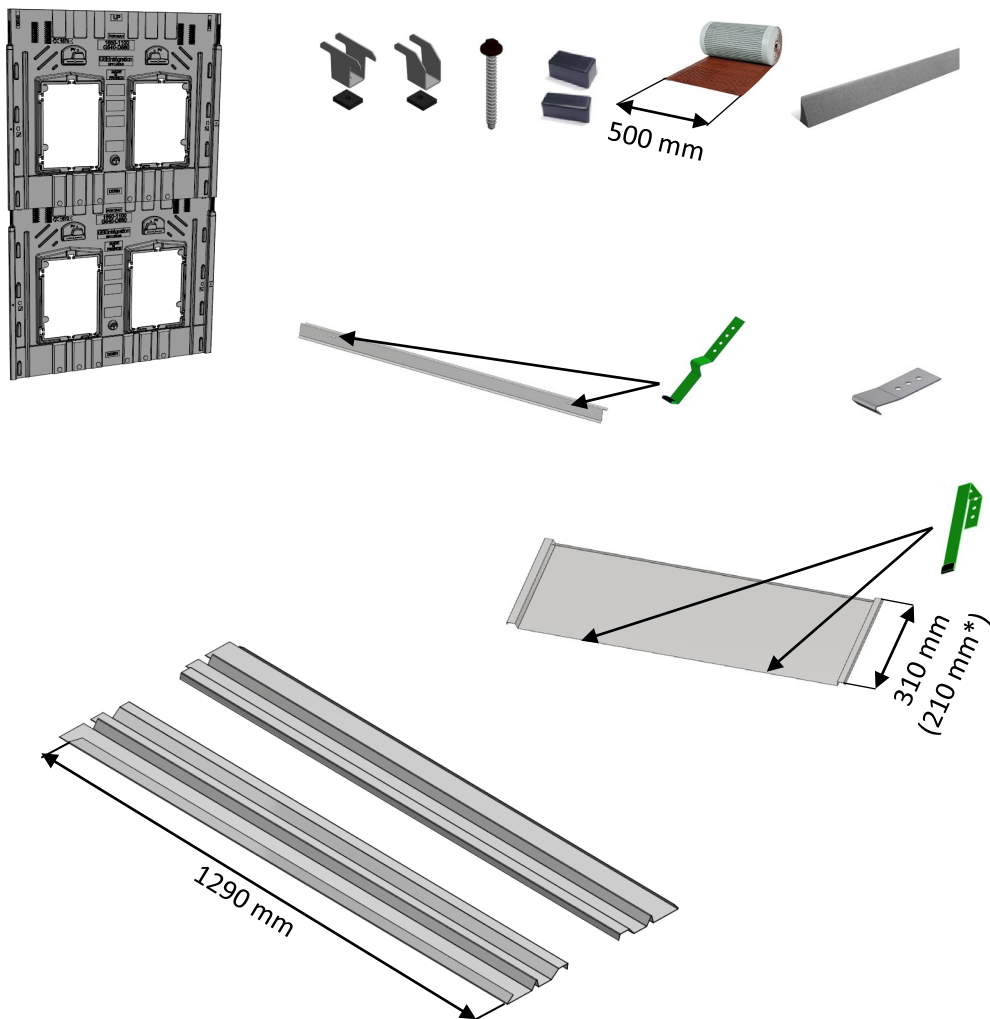


penne
 $13,5^\circ \text{ à } 45^\circ$



Kit TS-2 - Liste des composants

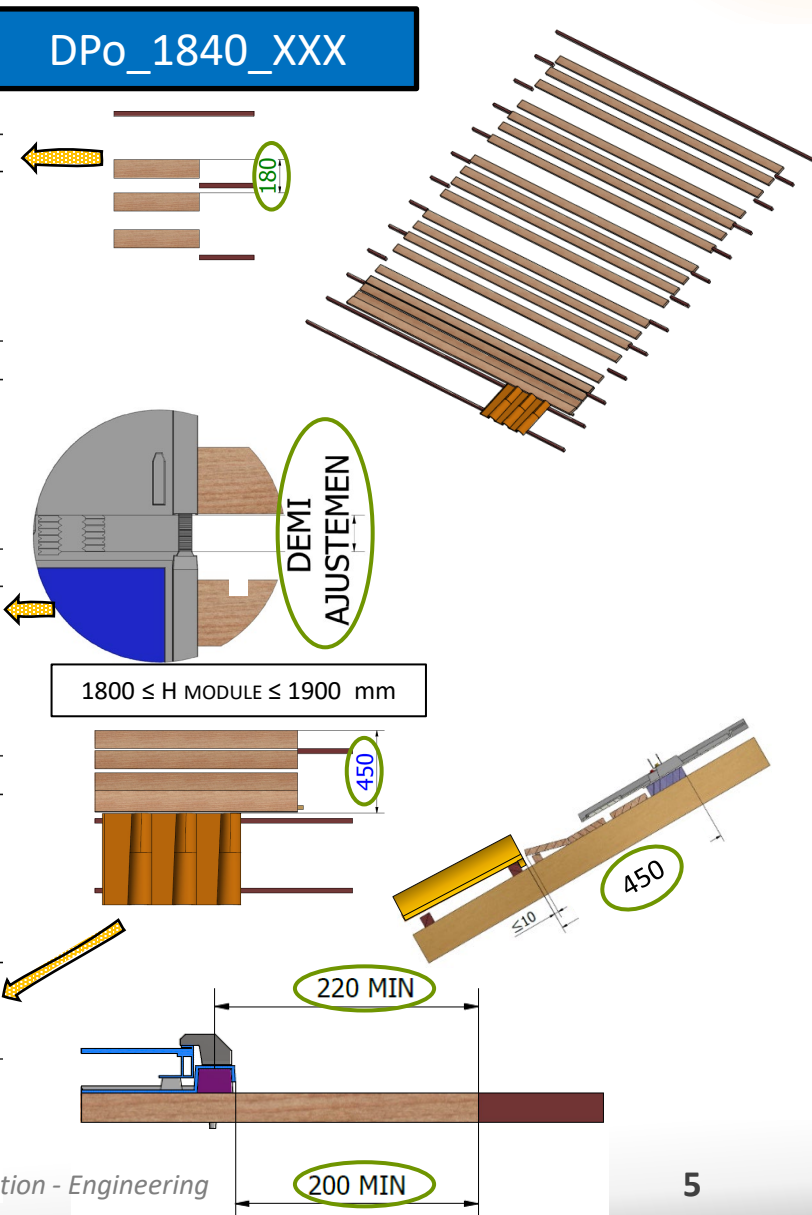
➤ Abergements du Kit TS 2022



DPo_1650_XXX

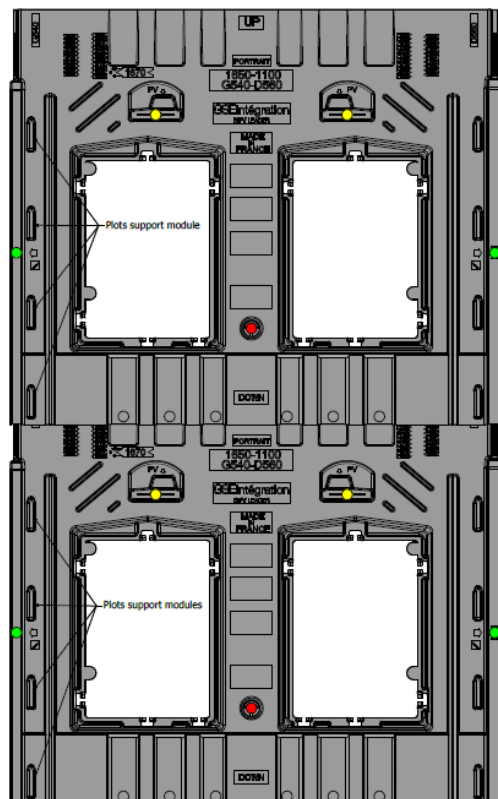


DPo_1840_XXX

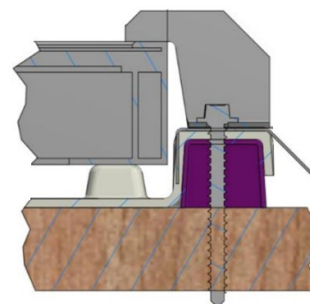
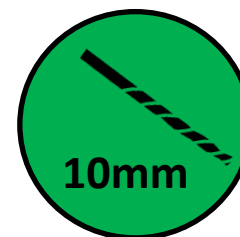


Kit TS-2 - Pré-perçements des plaques

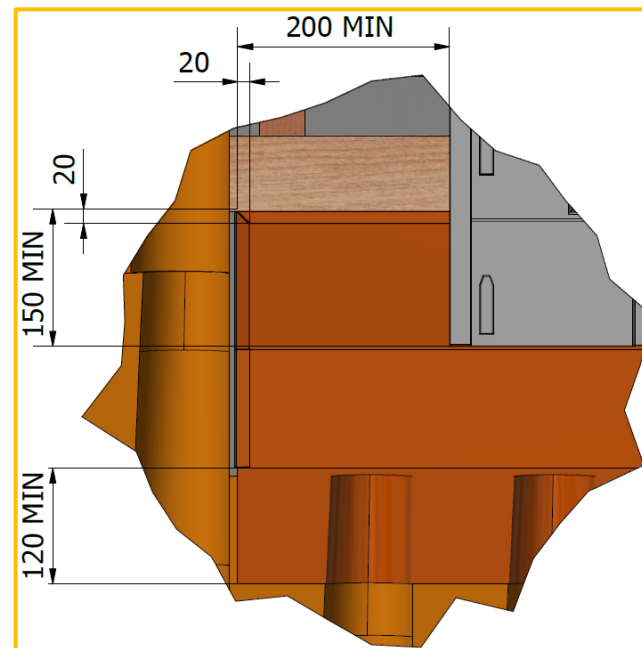
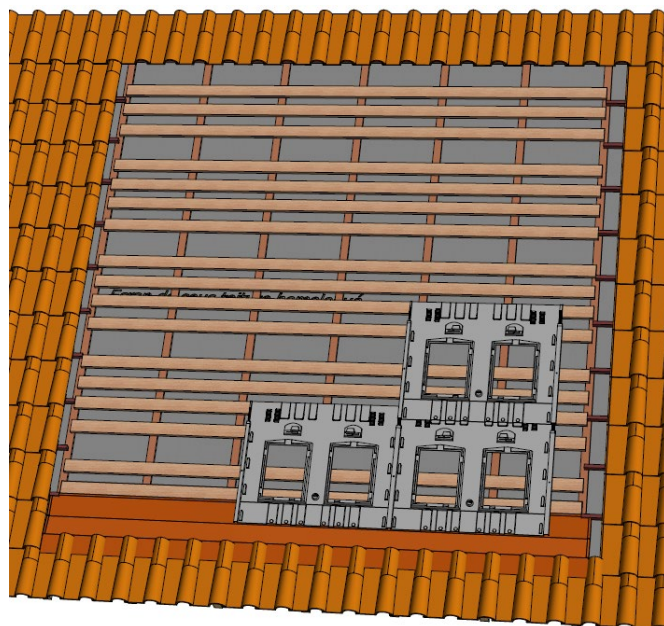
Les pré-perçements sont indispensables à la gestion de la dilatation des plaques en Polypropylène.



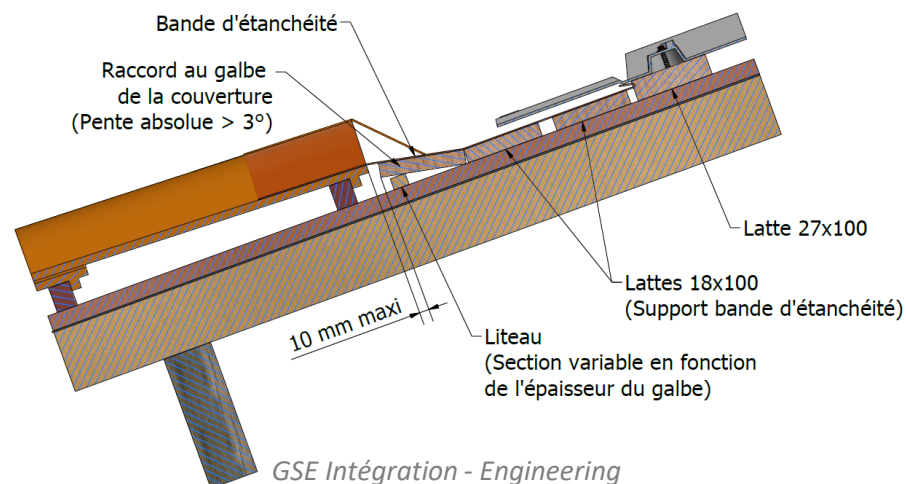
- Fixation plaque (trou percé usine à 6,5 mm)
- Fixation plaque (trou percé usine à 10 mm)
- Fixation Etrier (6 étriers) (pré-perçement 10 mm)



Kit TS-2 - Pose de la bande d'étanchéité

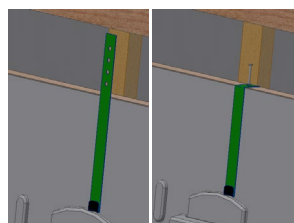
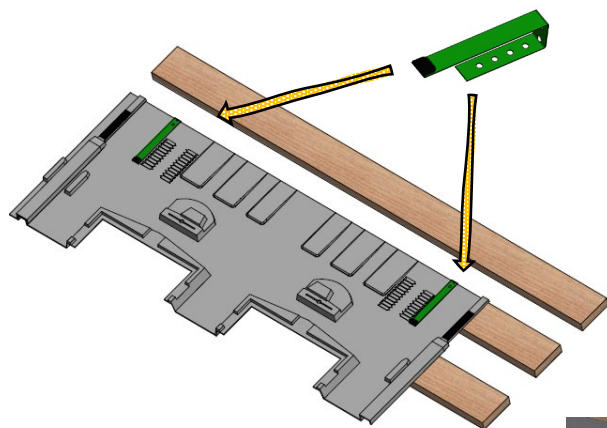


➤ Pose de la bande en milieu de champ

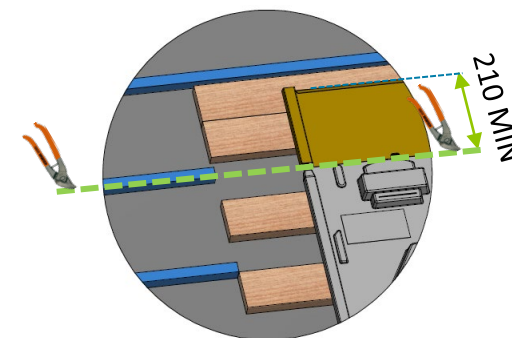
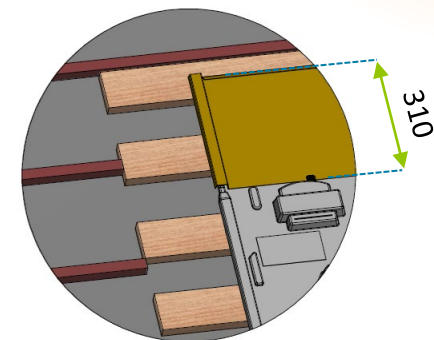
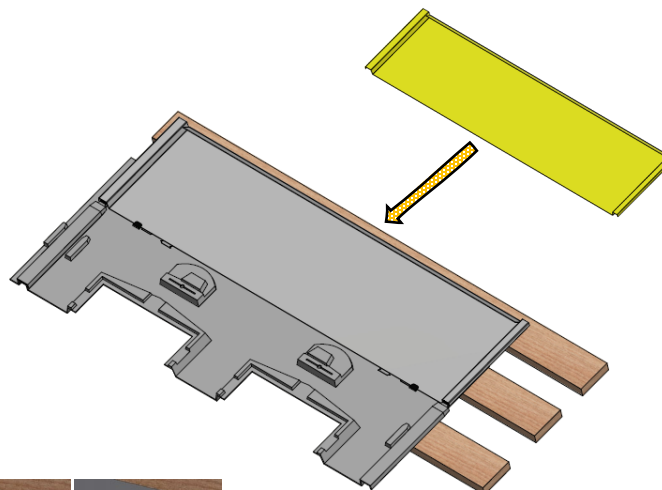


Kit TS-2 - Pose des abergements supérieurs

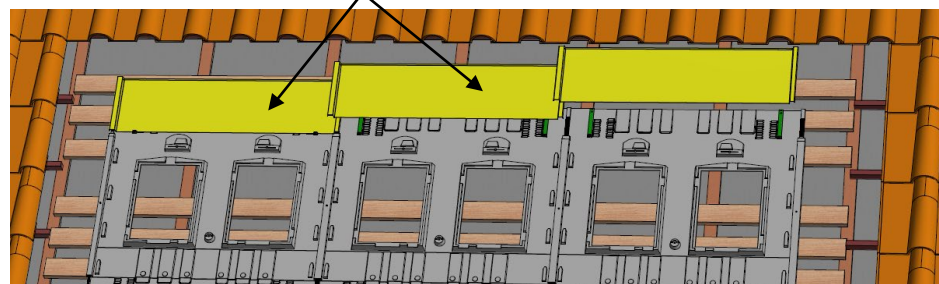
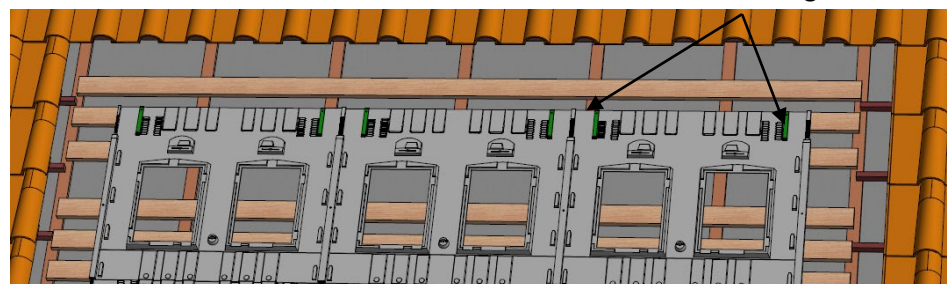
1. Placer les crochets longs pour les abergements supérieurs
2. Couper/ Ajuster les crochets longs pour les abergements supérieurs
3. Insérer les abergements supérieurs dans les crochets



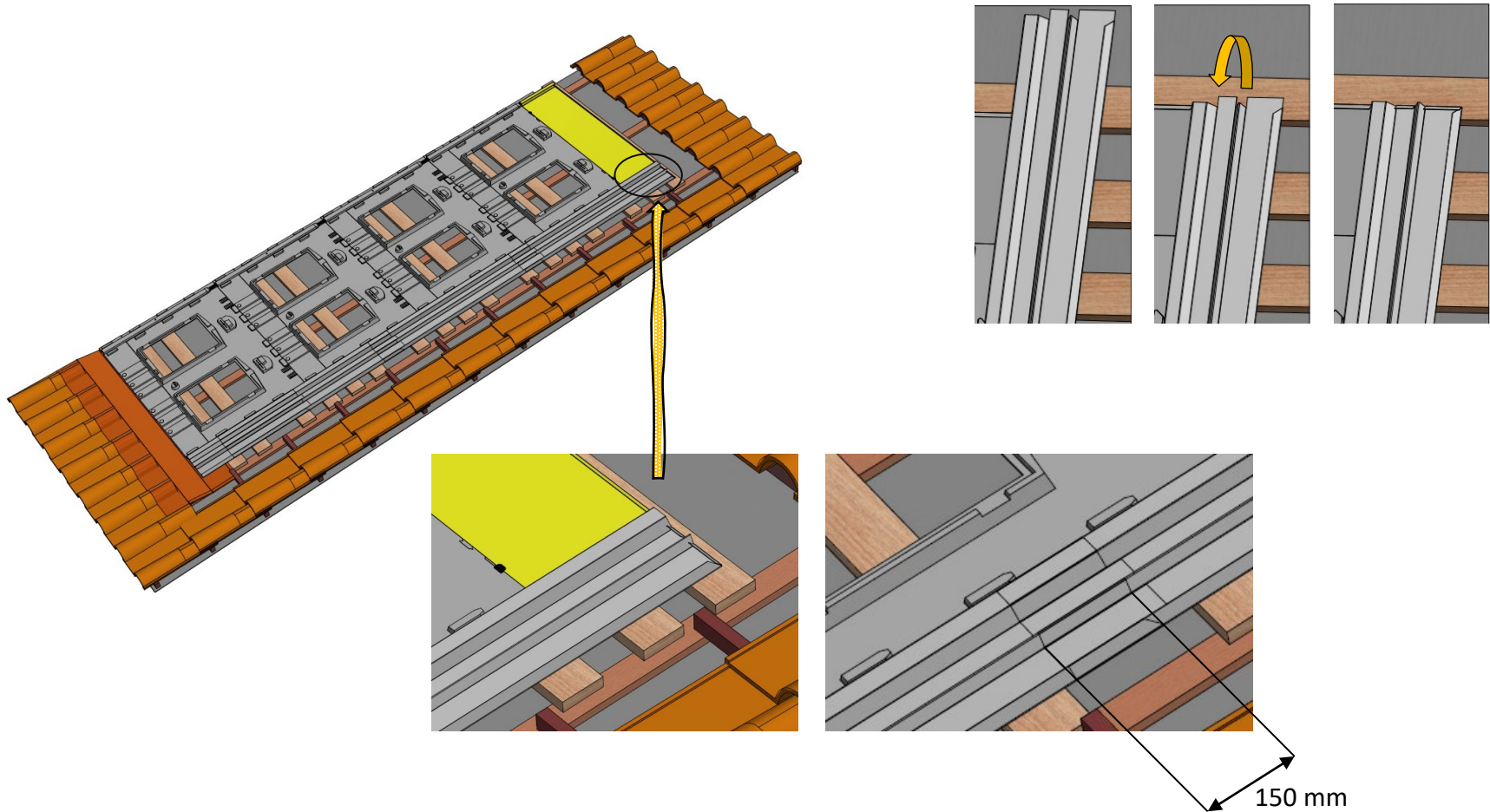
Crochets longs



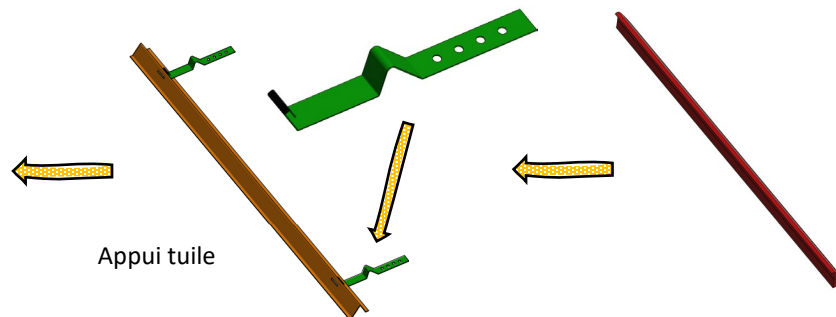
Découpe sur chantier:
Abergement supérieur raccourci



Kit TS-2 - Pose des abergements latéraux et d'angle



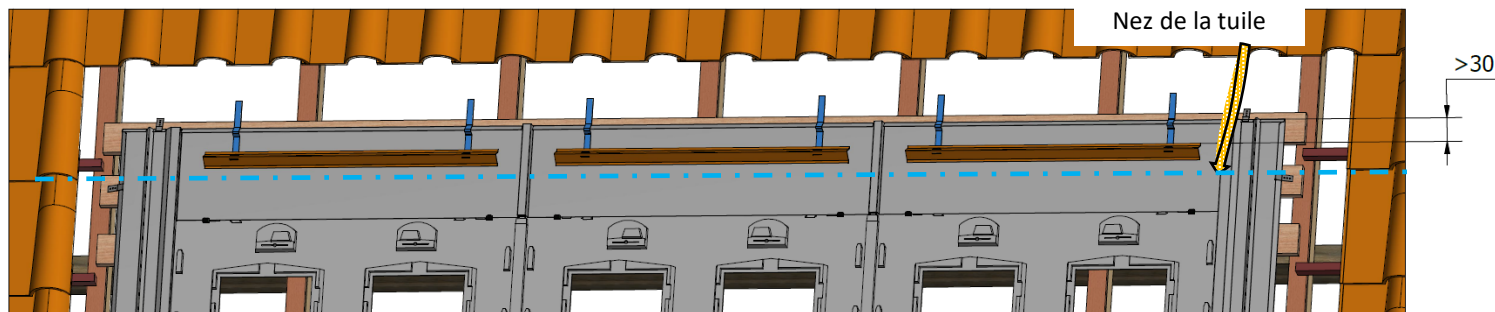
Kit TS-2 - Pose des supports tuiles



Insérer le crochet long

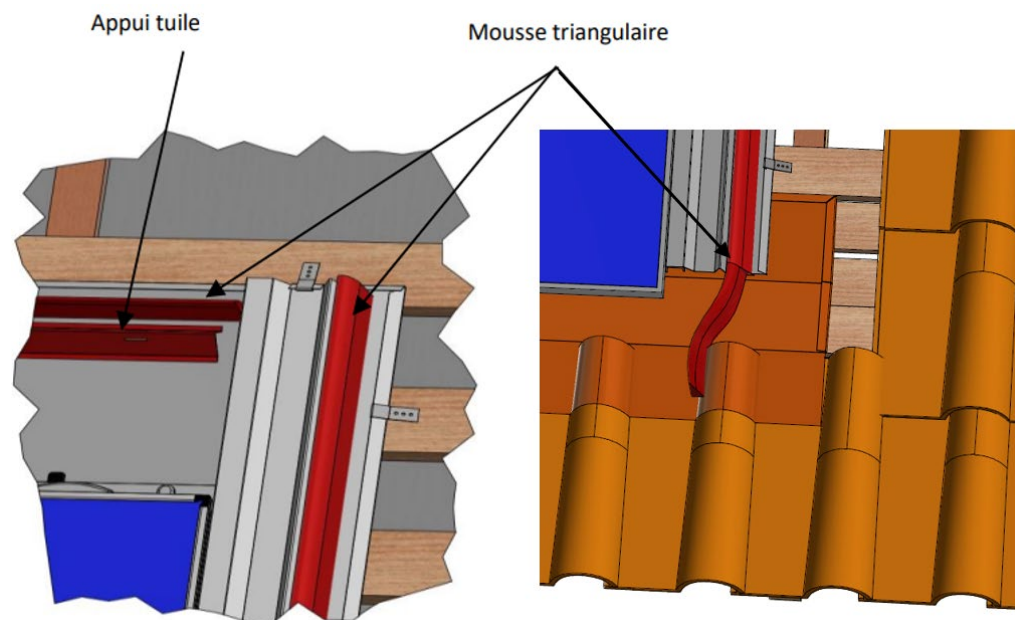
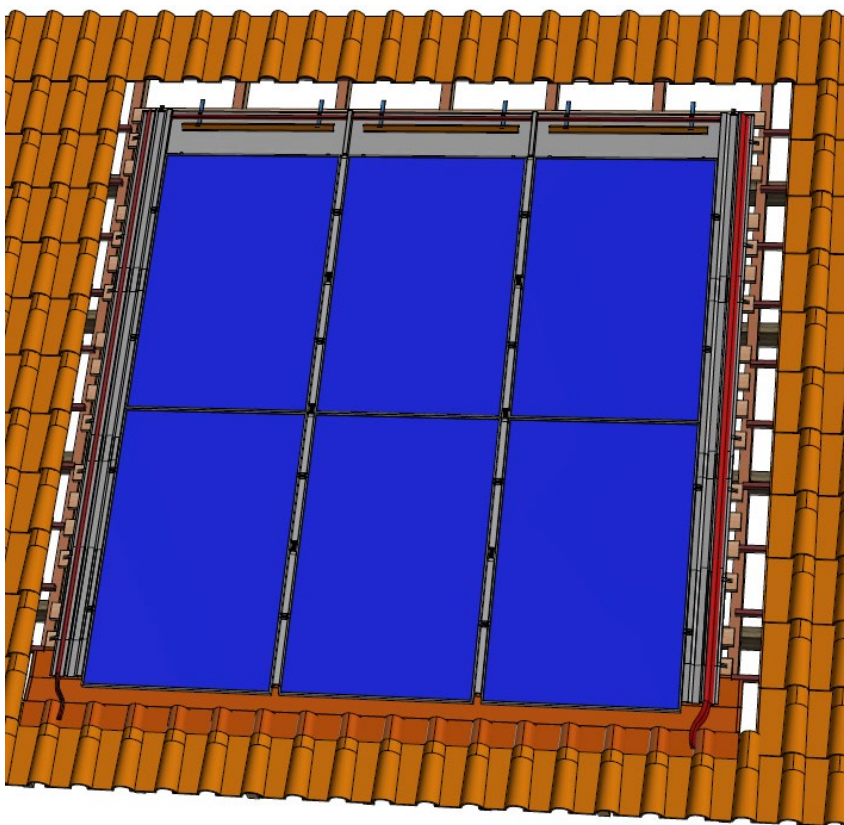
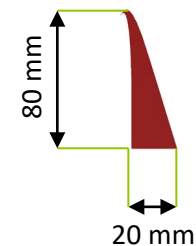


Fixer le crochet long



Kit TS-2 - Pose de la mousse triangulaire

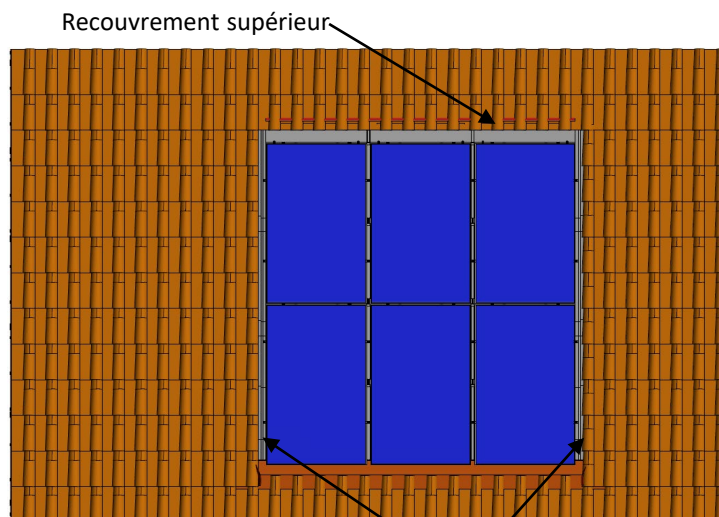
Uniquement pour les abergements hauts, mousse triangulaire à 30 mm du bord.



Kit TS-2 - Pose de la couverture

Recouvrement latéral > 90 mm

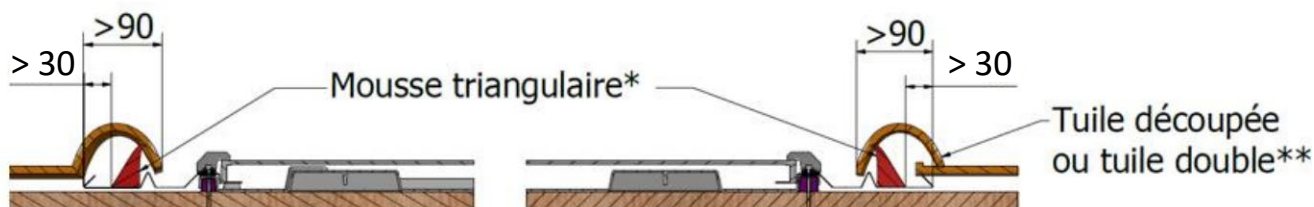
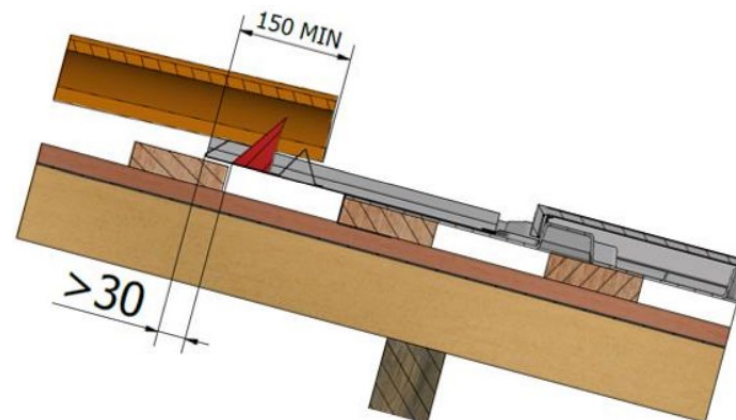
Recouvrement haut > 150 mm



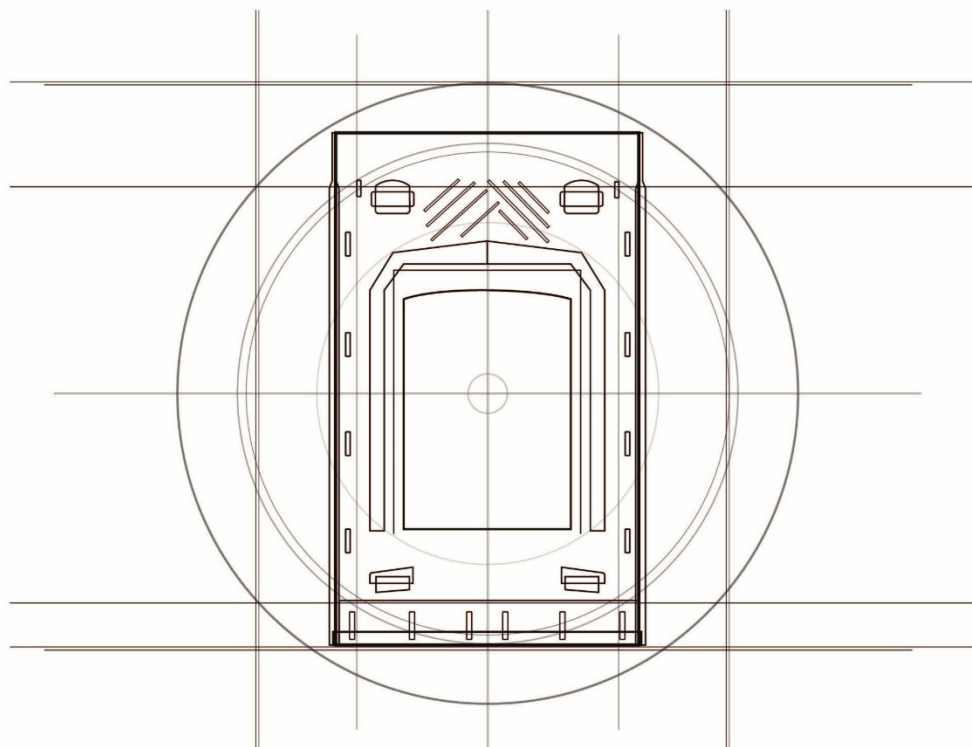
Recouvrement latéraux **

(*) La partie verticale de la mousse est toujours placée du côté du module afin que le sommet se couvre vers l'intérieur au moment de la pose de l'élément de couverture.

(**) Les éléments de couverture partie latérale doivent être fixés mécaniquement. Si une découpe de la tuile ne permet pas de fixer au droit d'un élément bois, utiliser une tuile double.



Guide d'installation Kit Tuiles Sud TS-2



Support technique disponible :
Lun – Ven : 09:30 – 18:00

Tel.: +33(0)1.70.32.08.05
E-Mail: technical.support@gseintegration.com