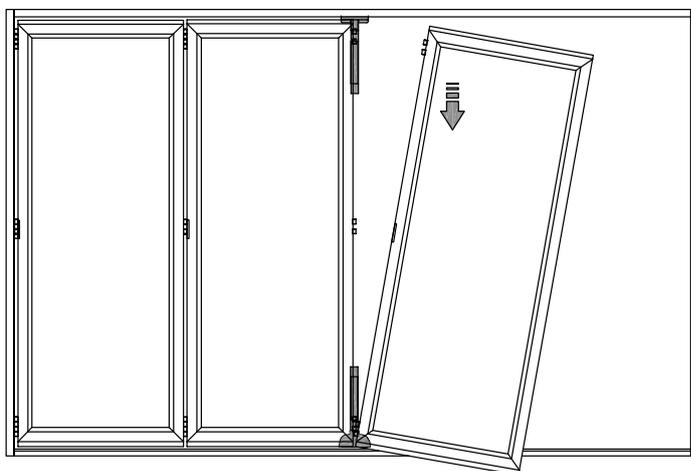
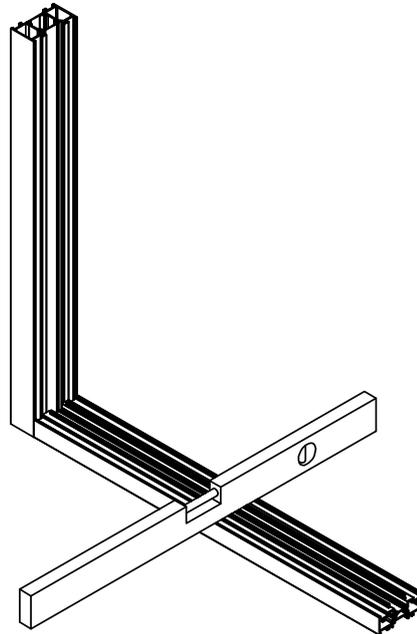
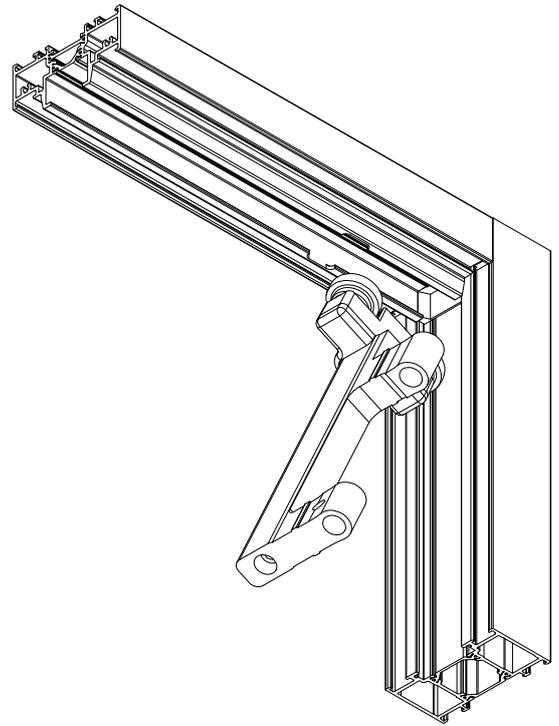


# AMBIAL PW

FOLDING DOOR

## INSTALLATION MANUAL

6329.005 - 27/07/2020



**sapa:**

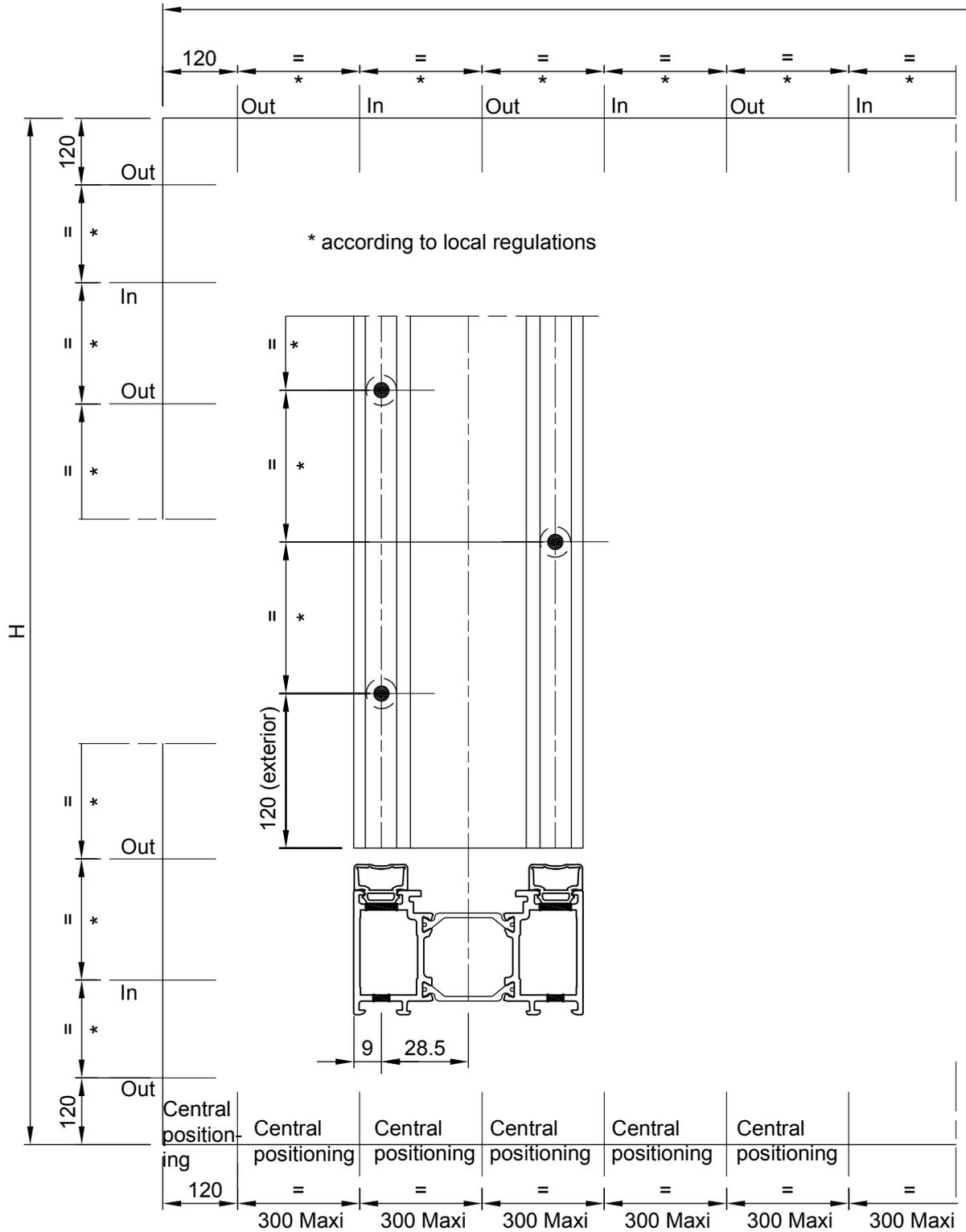
By  Hydro



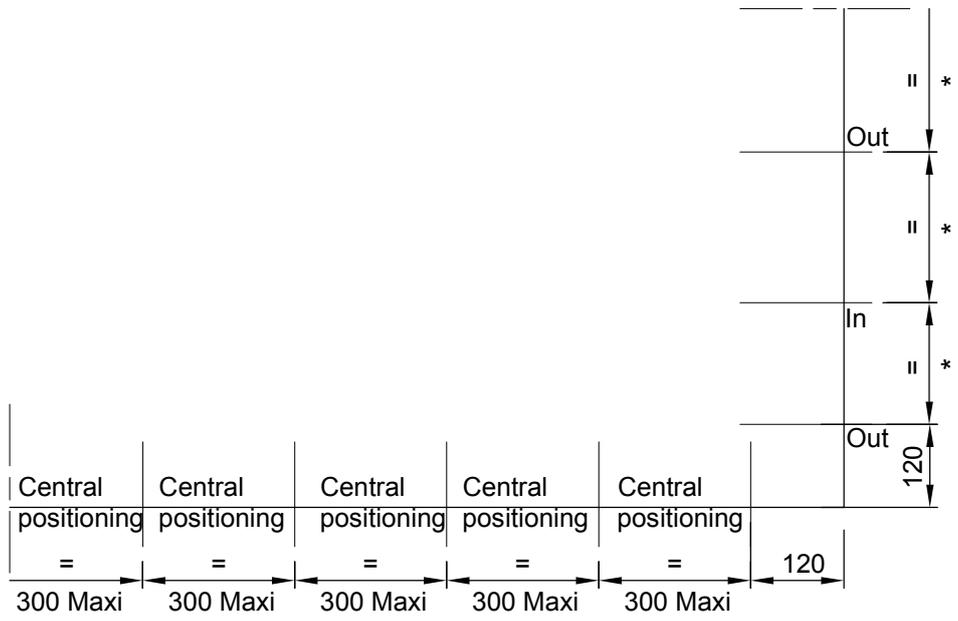
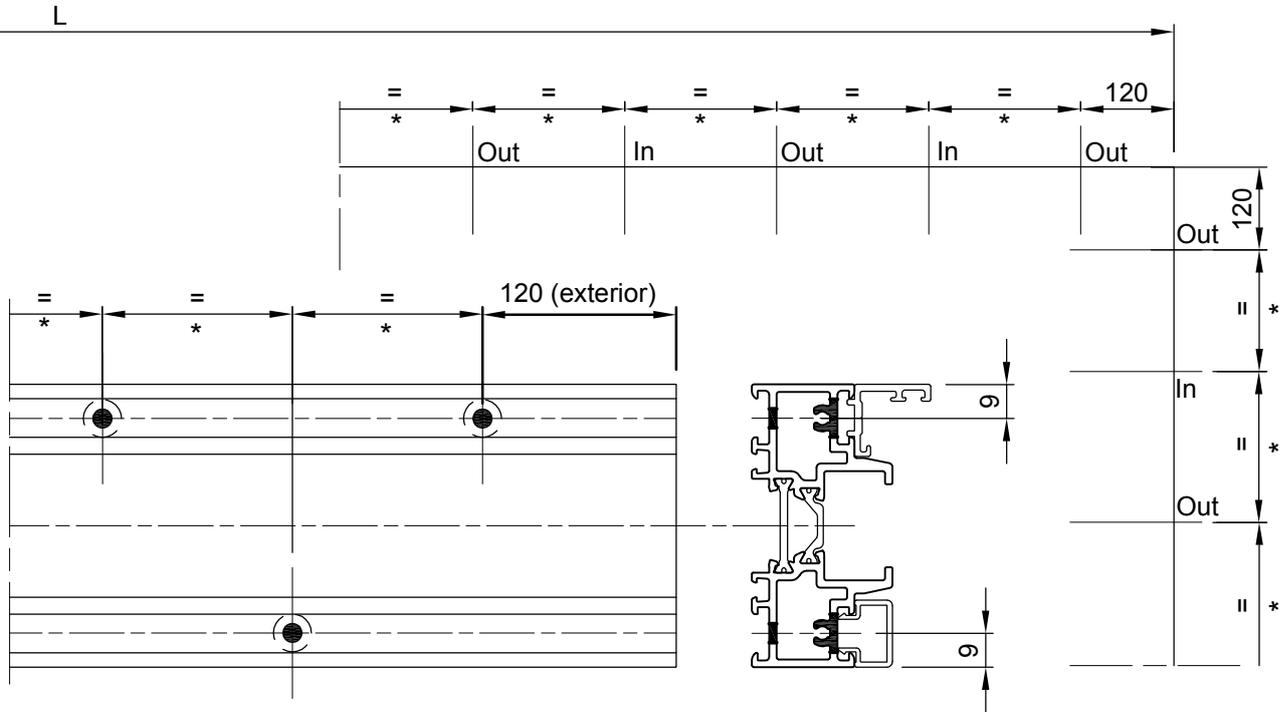
# PW FOLDING DOOR

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■ Fixing of the frame	P.4
■ <b>Options</b>	<b>P.5</b>
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■ Assembly handle TPW6006 on hinge	P.30
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# Fixing and positioning of the frame



# Fixing and positioning of the frame

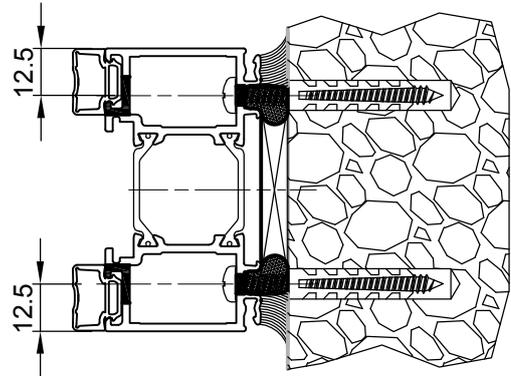
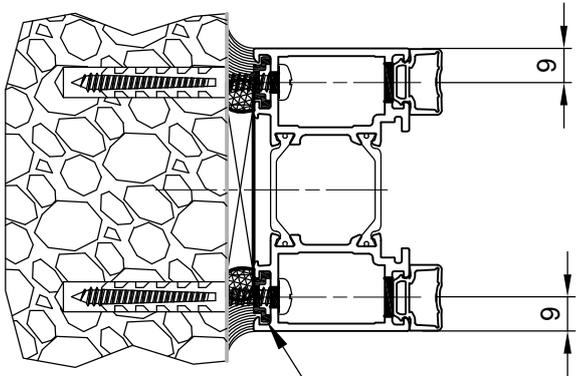
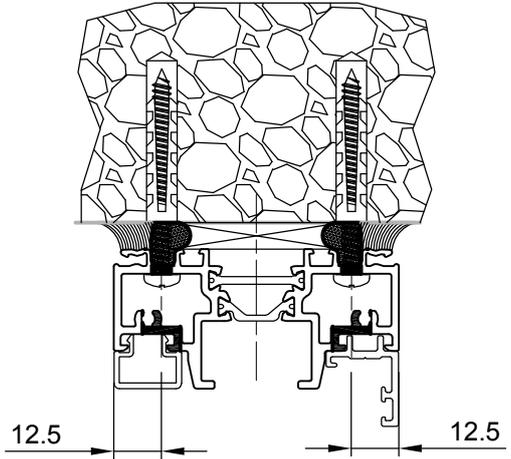
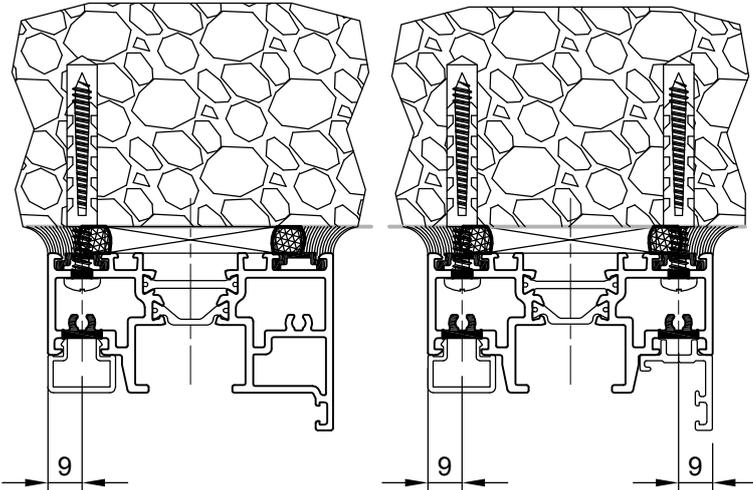


Frame installation  
**Fixing of the frame**

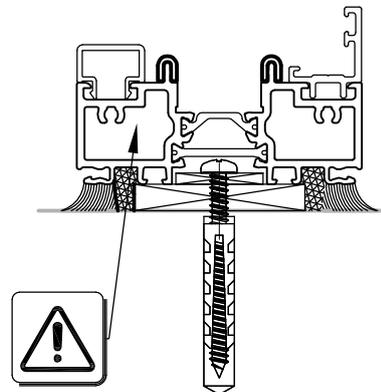
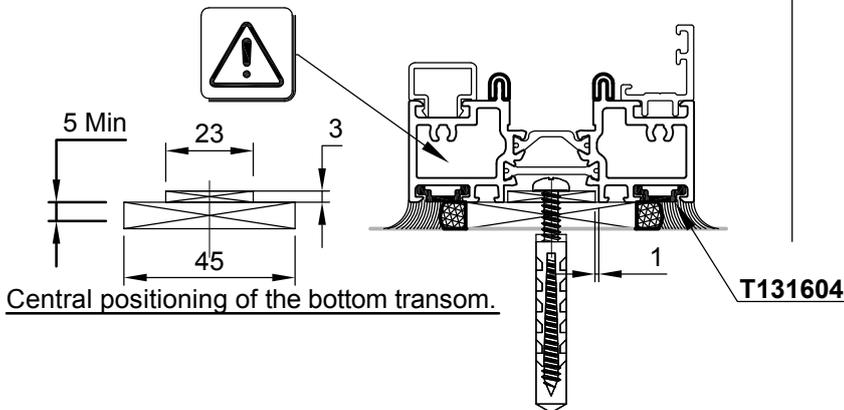
 Never drill the chambers of the bottom transom.

Without groove

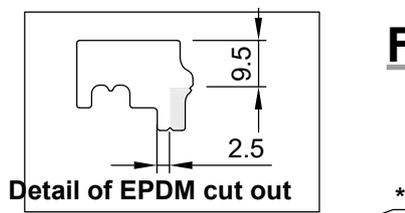
With groove for finishing profiles



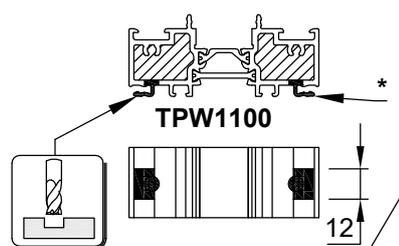
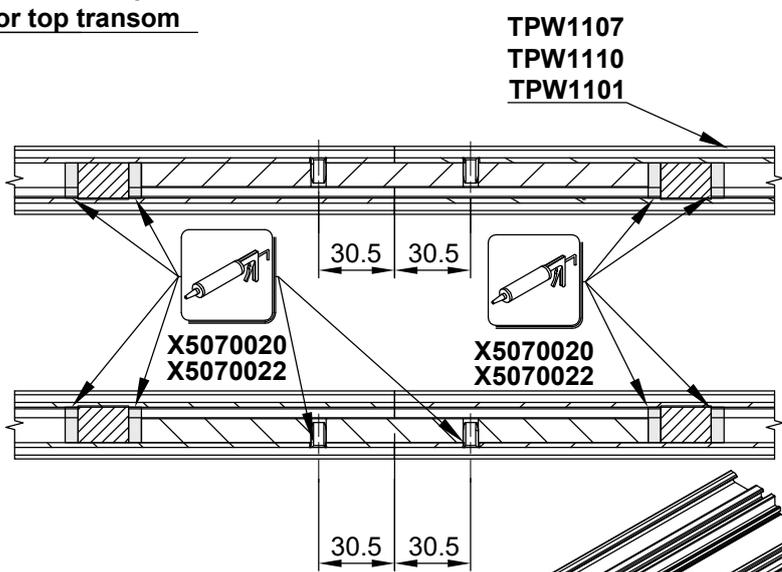
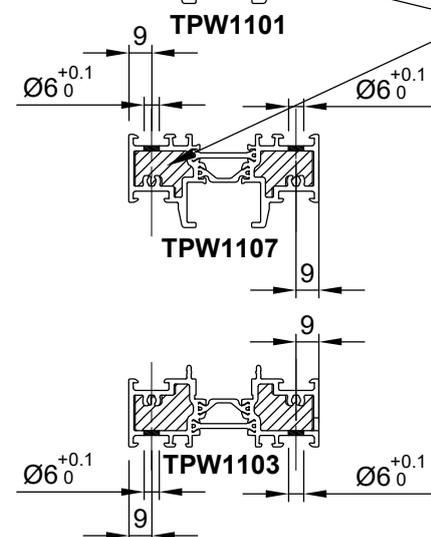
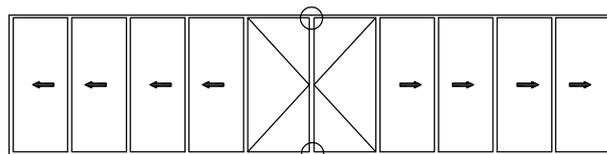
T131604



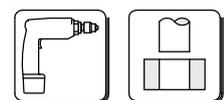
# Frame connector assembly



Trim EPDM parts for top transom



\* Milling 12 mm and drill Ø6



TPW7010

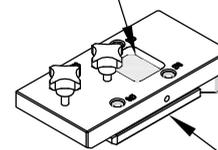
TPW1107  
TPW1110  
TPW1101

8 EPDM parts

TPW3602

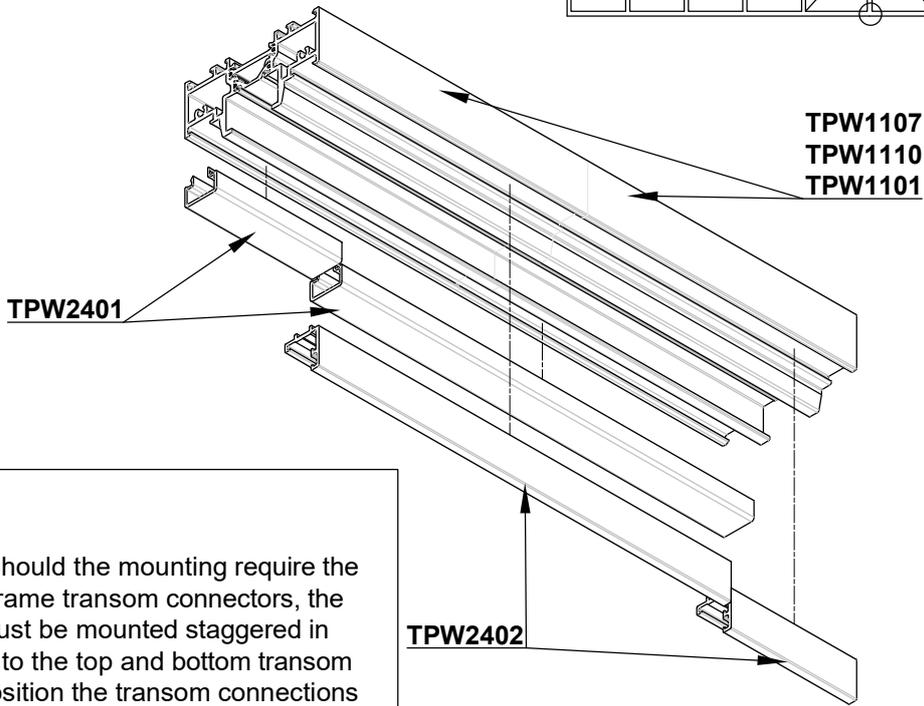
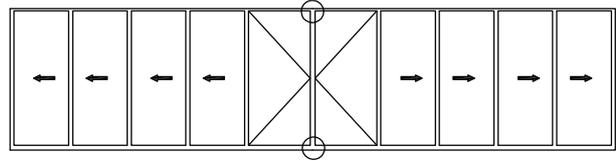
TPW1103  
TPW1100

Low position stop

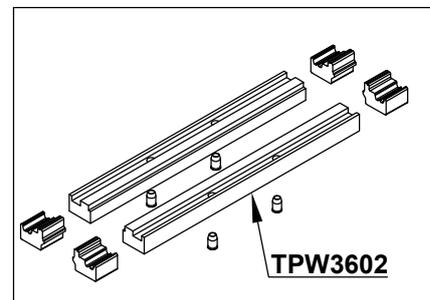
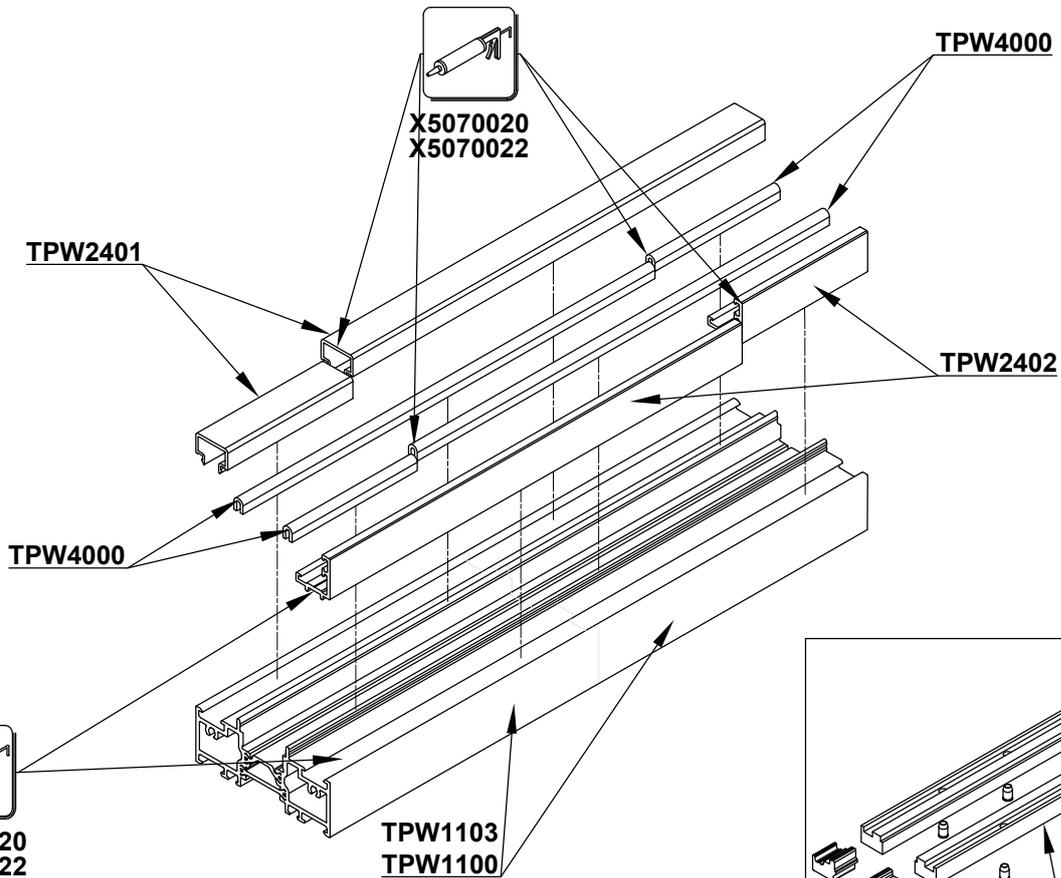


TPW7010

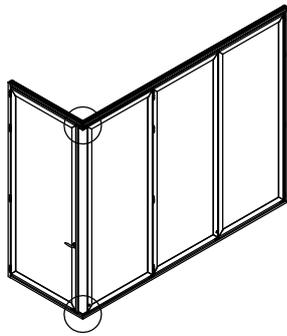
# Staggered mounting of frame connector TPW3602



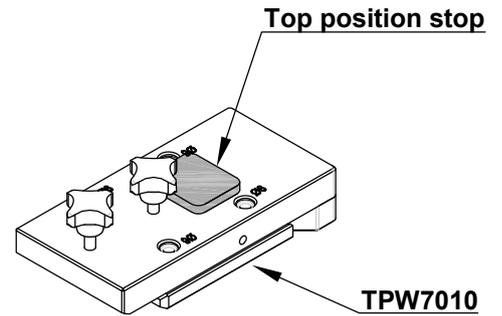
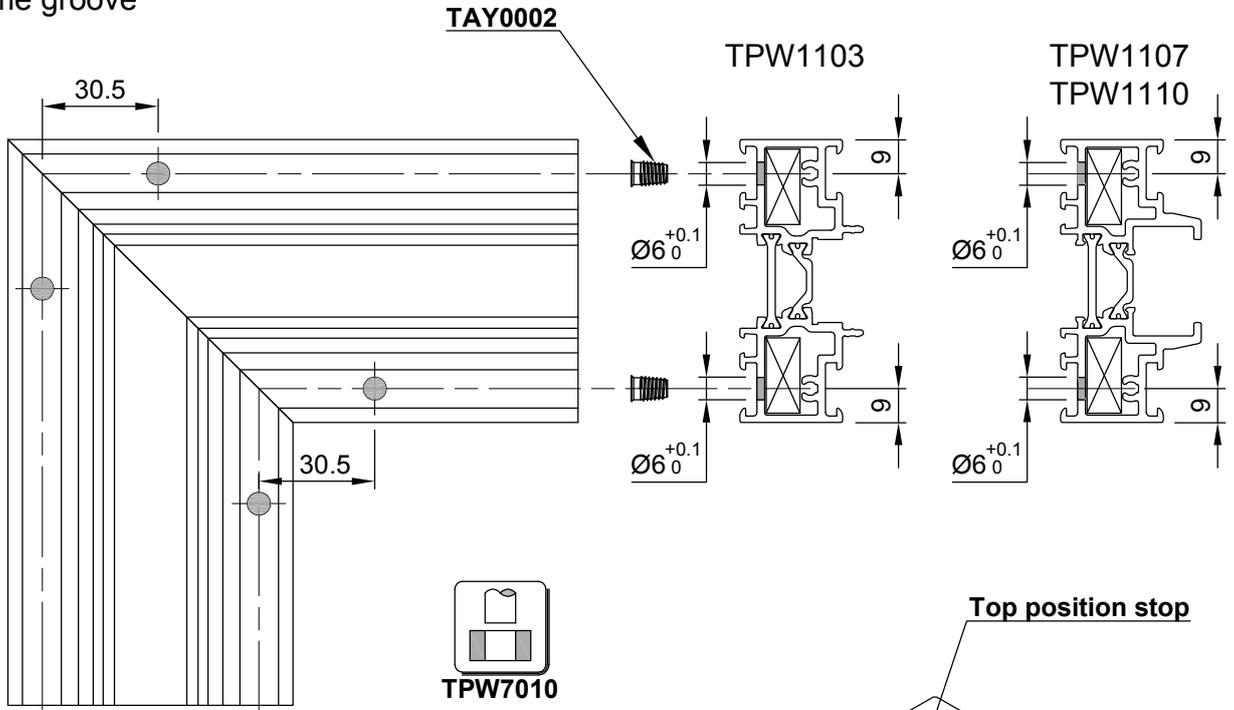
 Should the mounting require the use of frame transom connectors, the parts must be mounted staggered in relation to the top and bottom transom joins. Position the transom connections in an area where the roller assemblies do not pass, especially for 8 leaves applications.



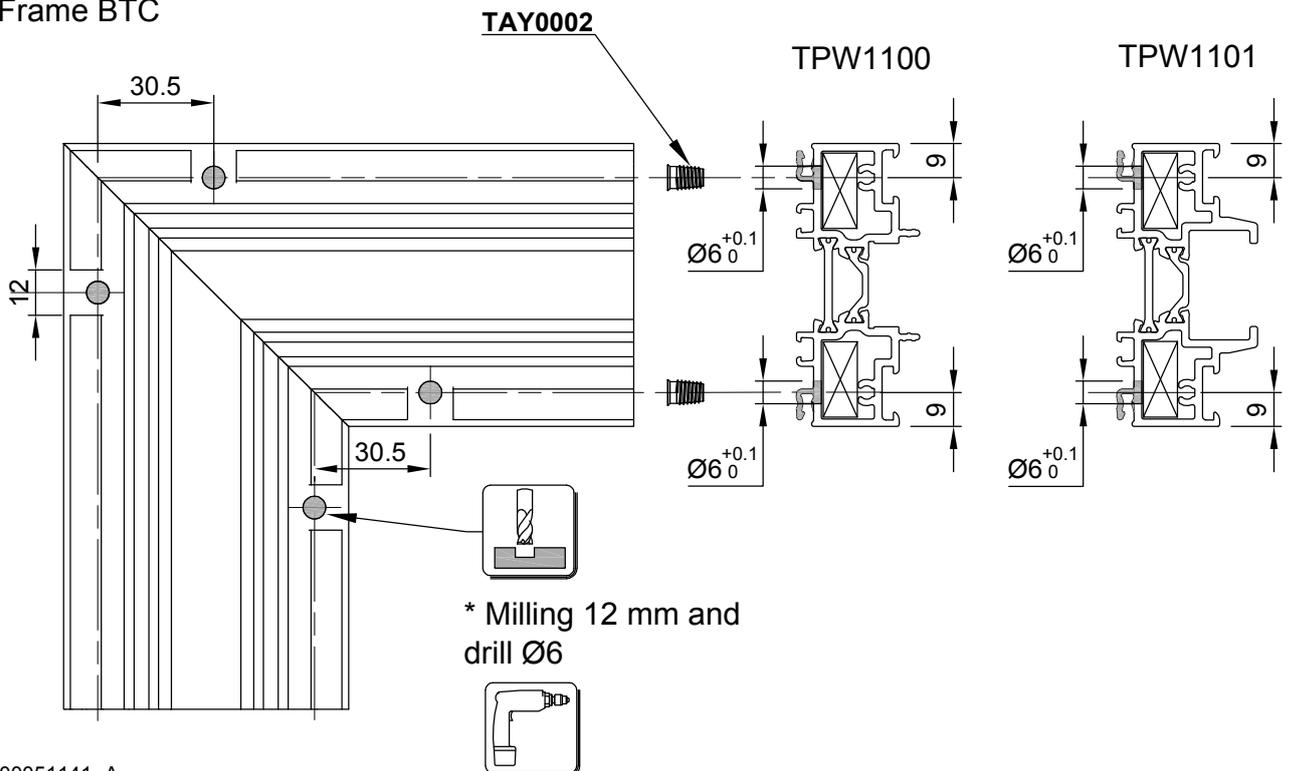
# Machining and pinning of angle outer frame



■ Frame groove

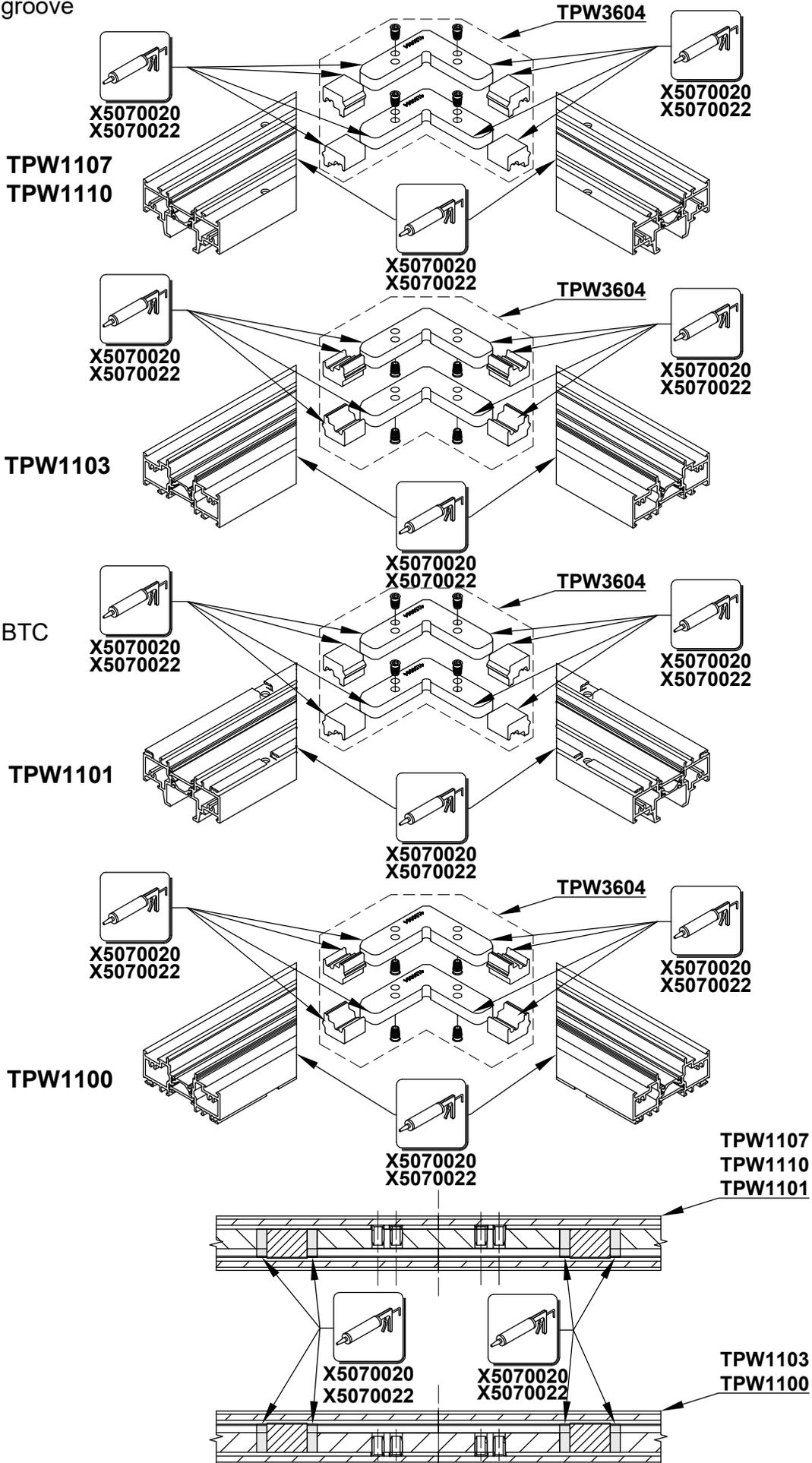


■ Frame BTC

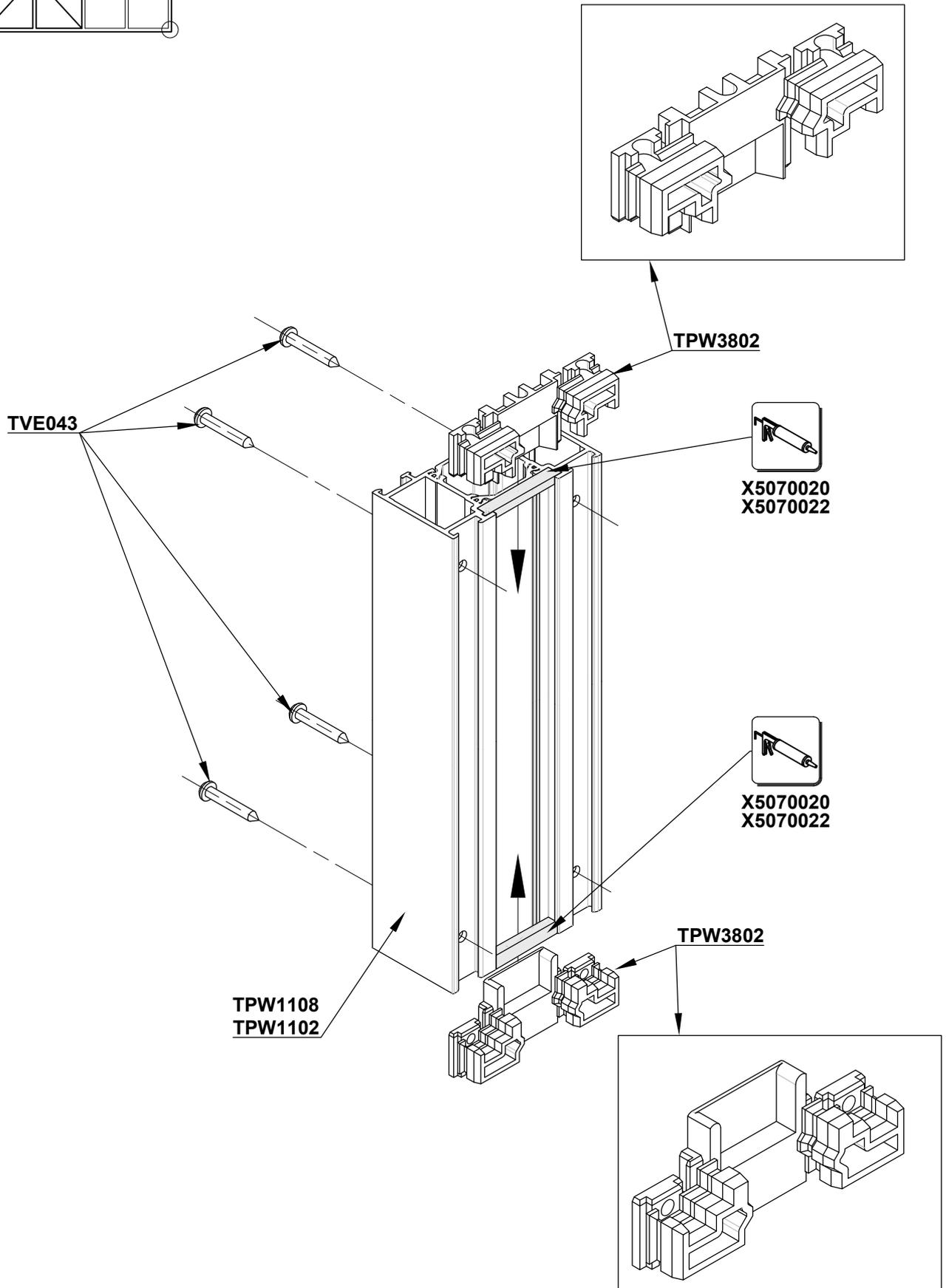
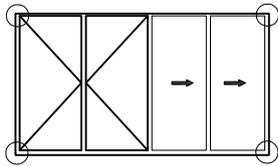


# Assembling the transom of angle outer frame

■ Frame groove

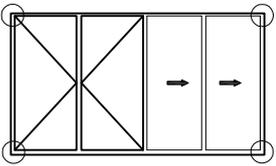


# Assembly of plugs TPW3802 in the mullions



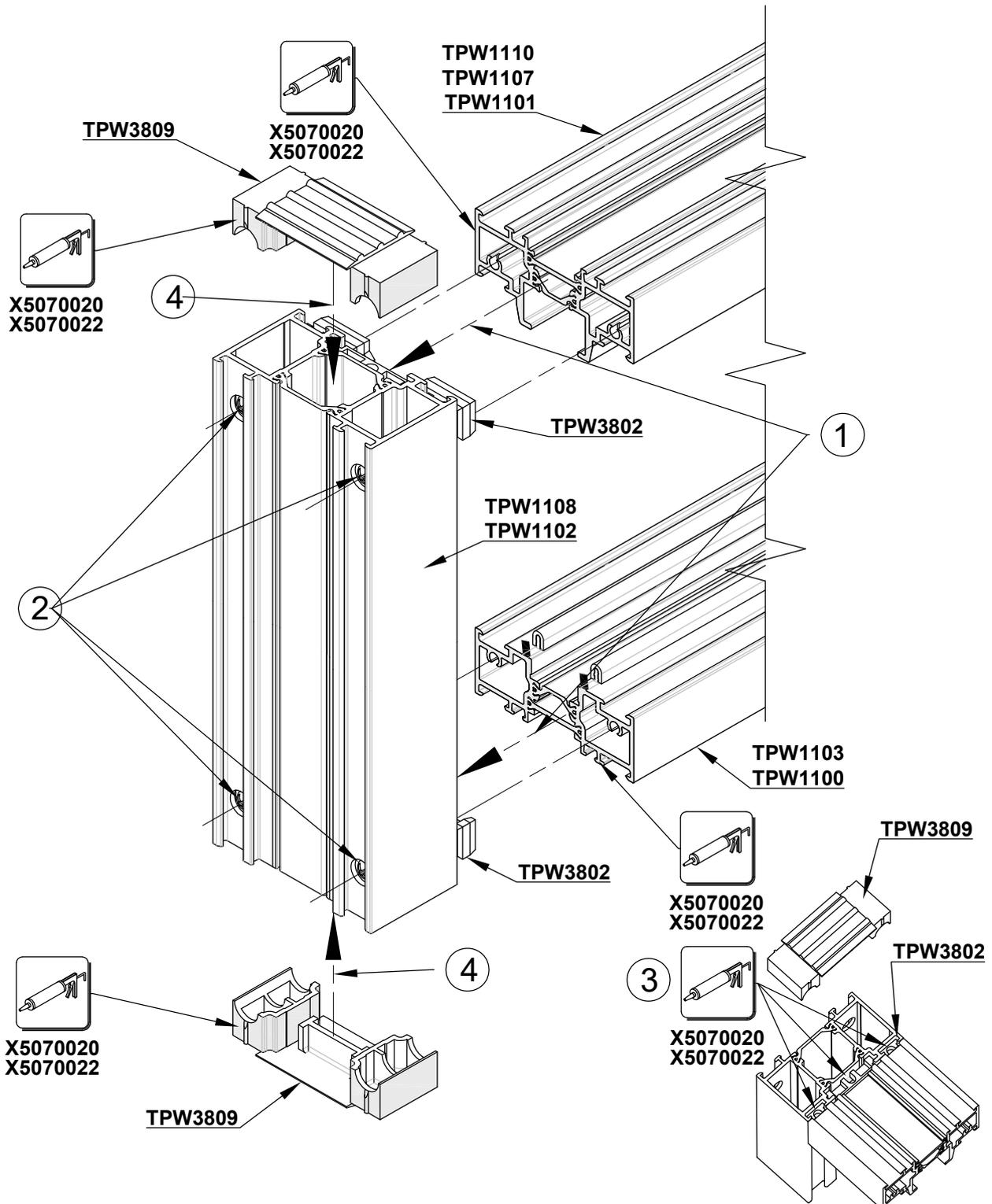
 Pre-position the plugs **TPW3802** with the screws **TVE043** with minimum fitting.

## Outer frame assembling by screw and plugs assembling

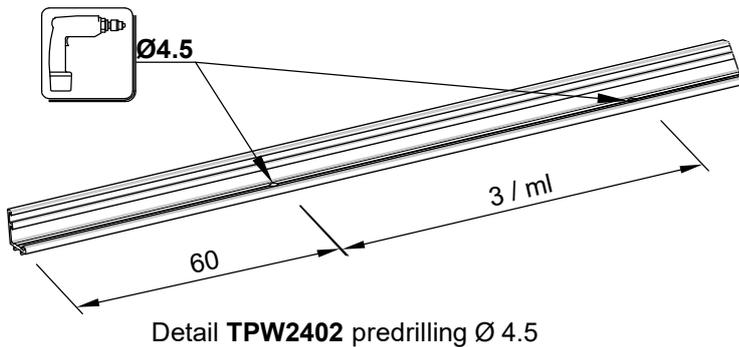
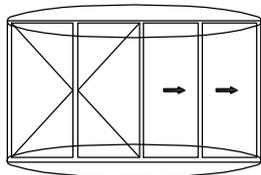


- According to the application case, mount the adjustable frame mullion before closing the frame.

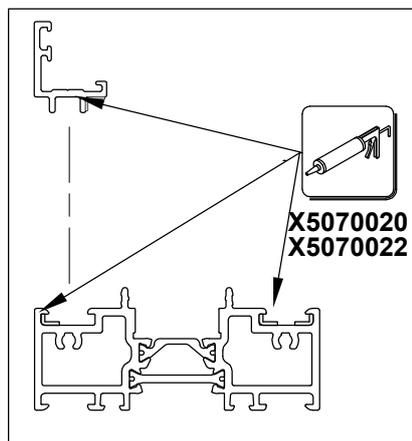
- ①- After applying **X5070020** or **X5070022** to the concerned section and in the top and bottom profile chambers insert the profile into the plug **TPW3802** already installed on the jamb.
- ②- Fully tight the screws **TVE043** to clamp the jamb, plug and top bottom profiles together.
- ③- Once assembling is completed, inject **X5070020** or **X5070022** through the specific provided holes on the plugs **TPW3802** before assemble the plugs **TPW3809**.
- ④- Install the plugs **TPW3809** at the mullion ends.



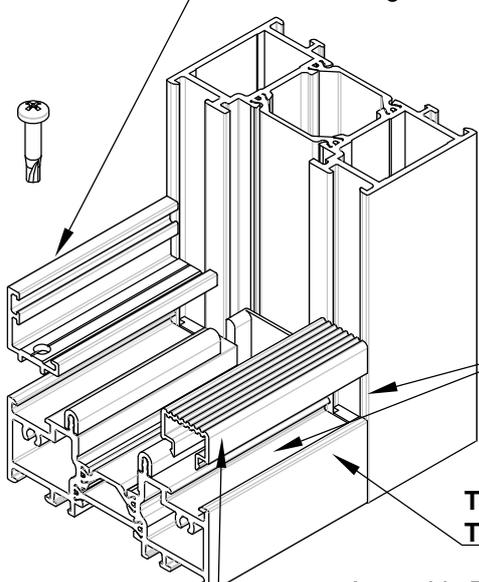
# Assembly of TPW2401 and TPW2402 variant TPW2405 in bottom part



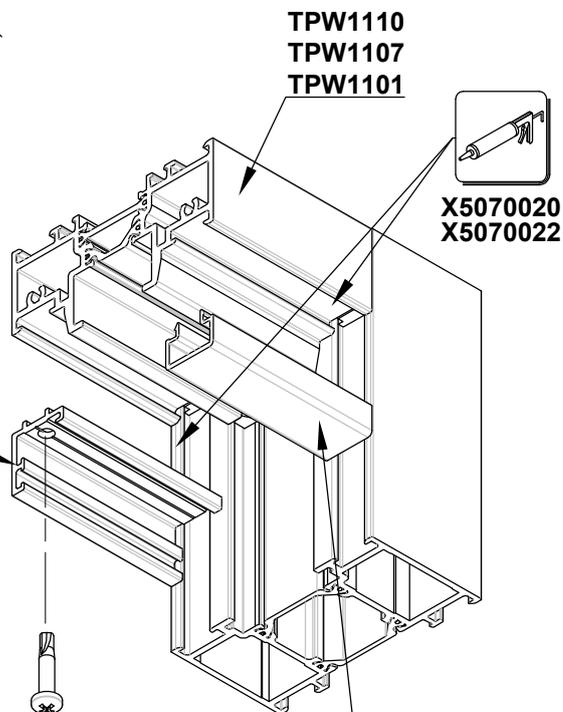
Assemble TPW2402 by screwing TVE037



Assemble TPW2402 by screwing TVE037



Assemble TPW2405 by clipping, with anodised finish, it can be fitted by opening out the clipping legs



to screw in moderation



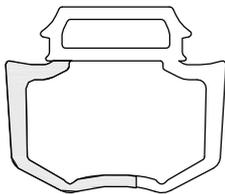
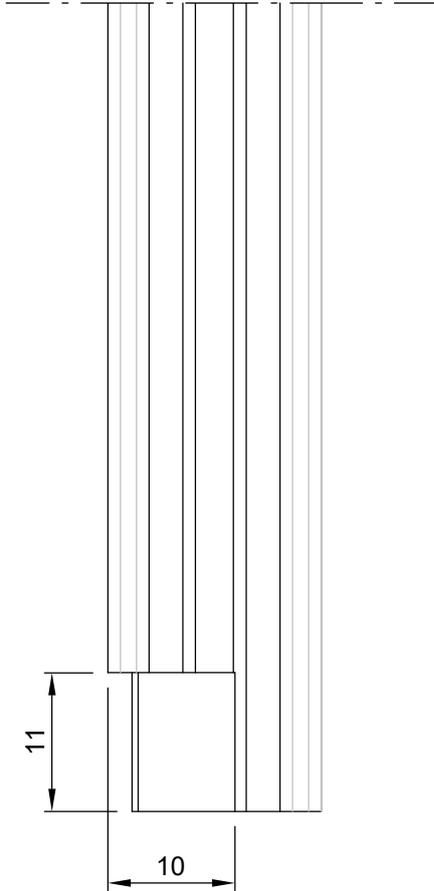
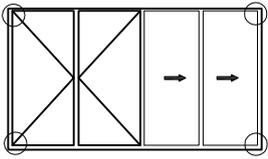
Assemble TPW2401 by clipping, with anodised finish, it can be fitted by opening out the clipping legs

to screw in moderation

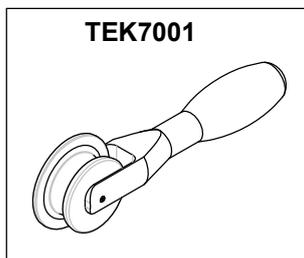


TPW1103  
TPW1100

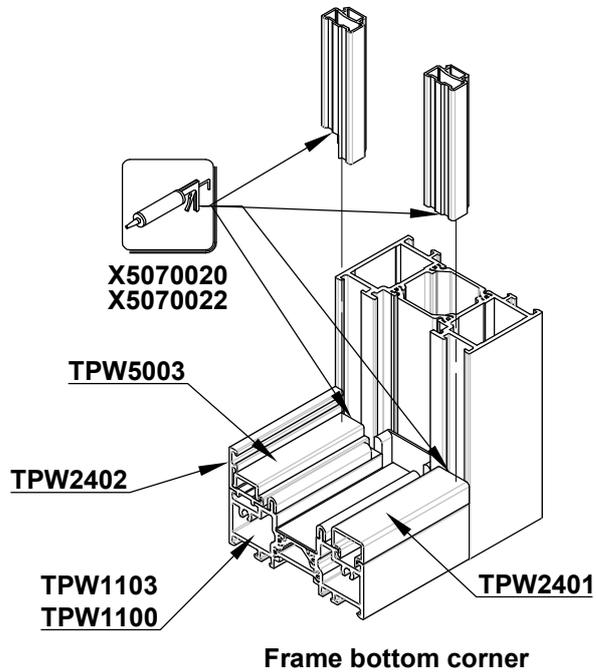
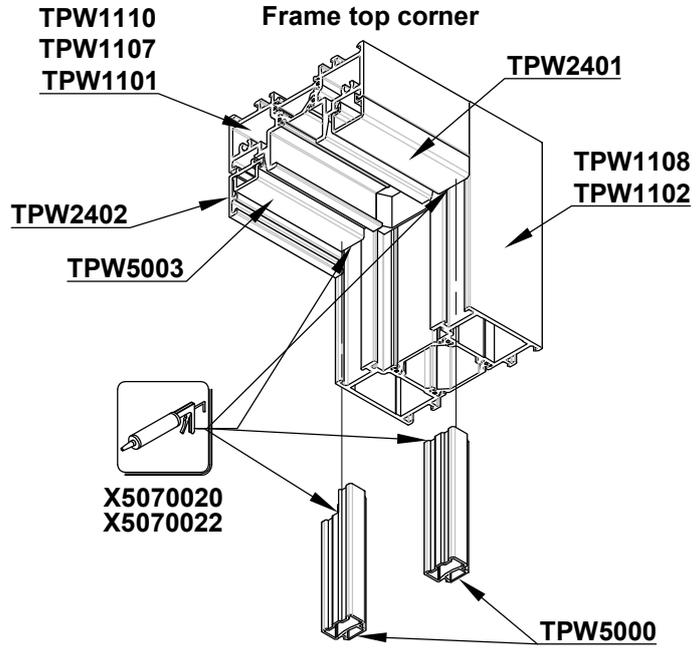
# Gaskets TPW5000 connection on frame



TPW5000

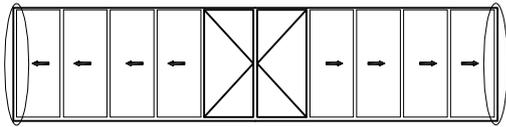


TEK7001



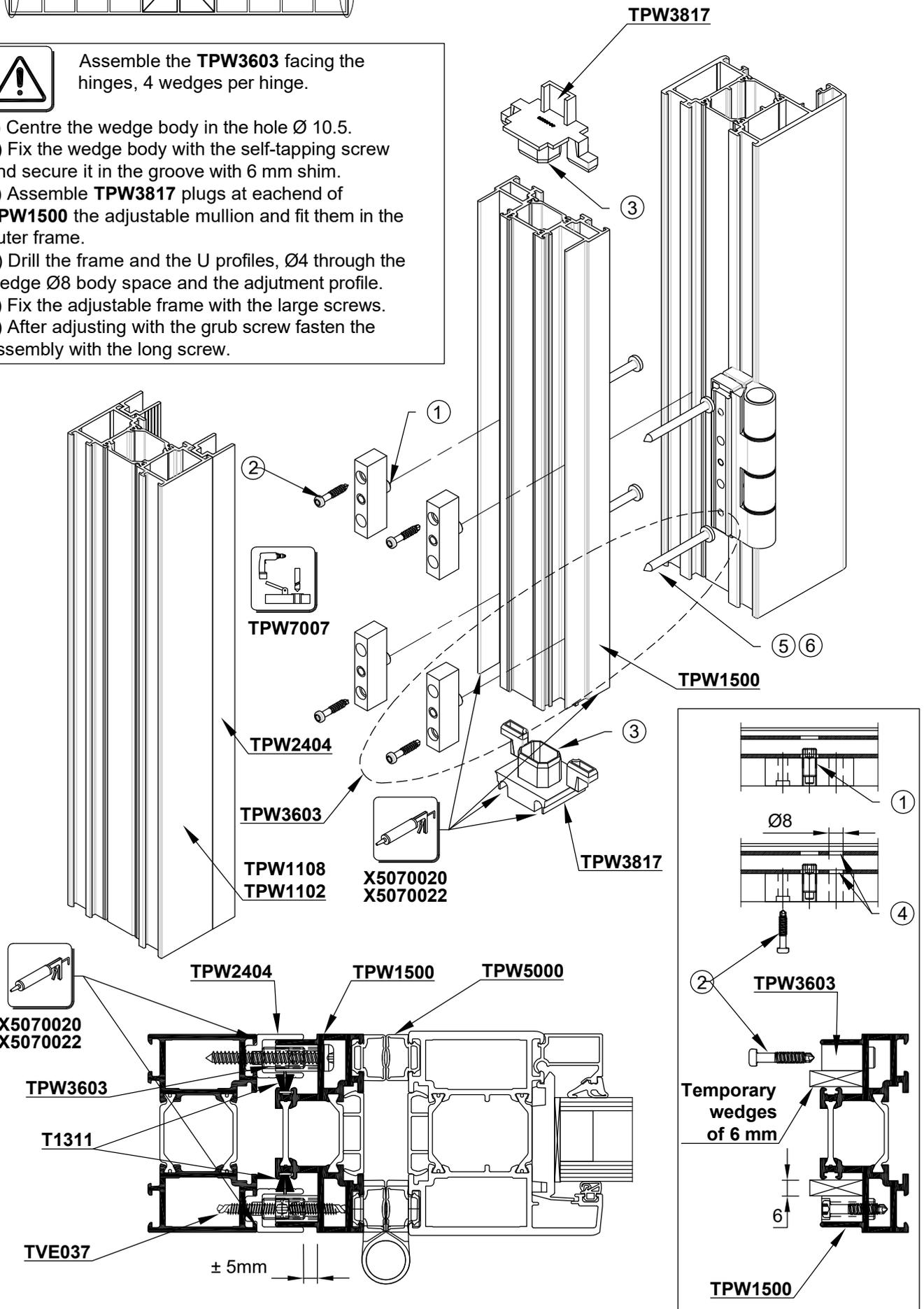
NOTE:  
Clip gasket **TPW5000** with roller **TEK7001** on the leaves mullions.

## Adjustment profile

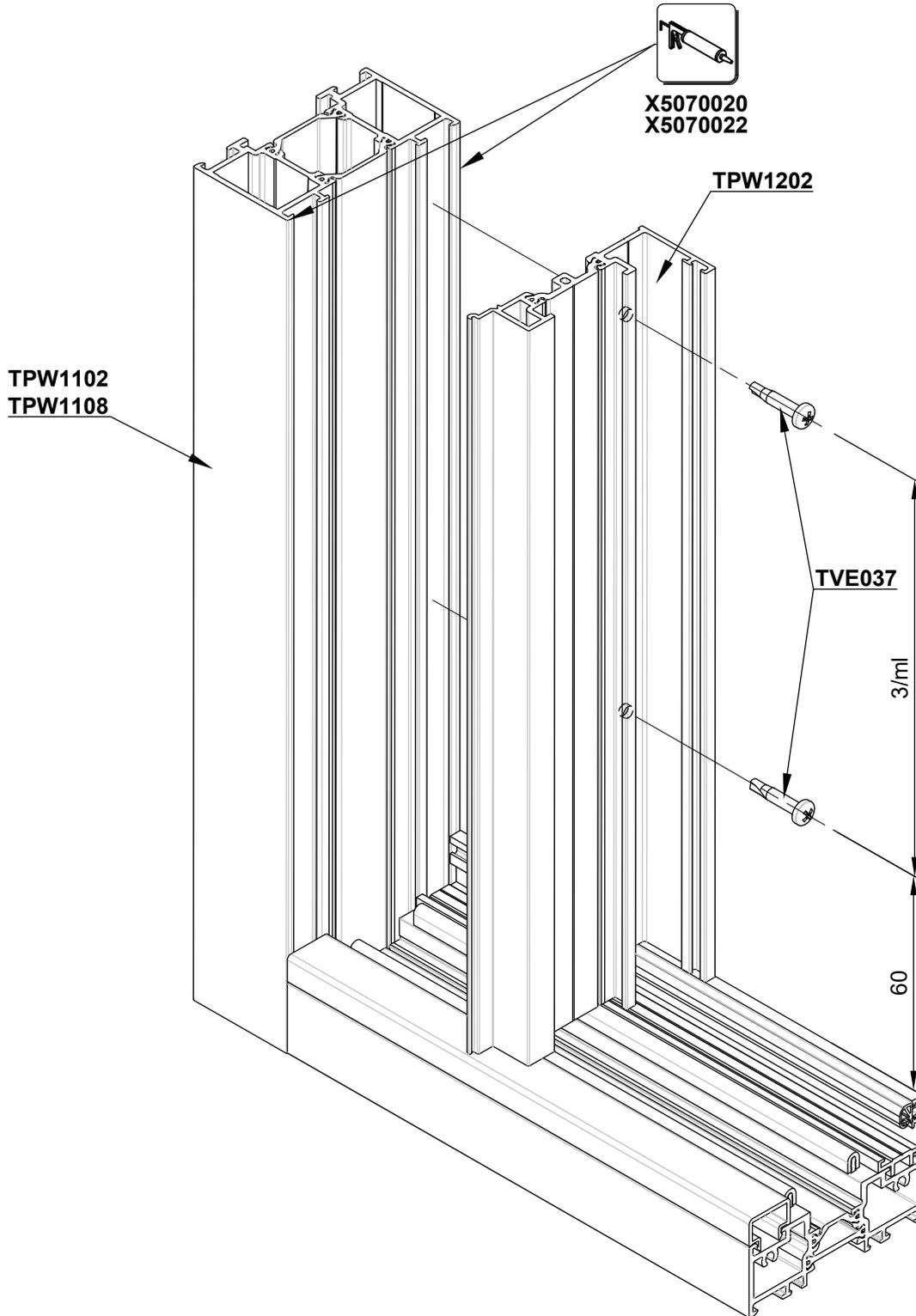
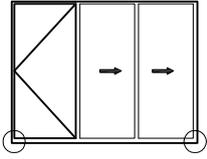


Assemble the **TPW3603** facing the hinges, 4 wedges per hinge.

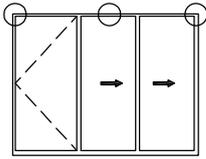
- 1) Centre the wedge body in the hole  $\varnothing 10.5$ .
- 2) Fix the wedge body with the self-tapping screw and secure it in the groove with 6 mm shim.
- 3) Assemble **TPW3817** plugs at eachend of **TPW1500** the adjustable mullion and fit them in the outer frame.
- 4) Drill the frame and the U profiles,  $\varnothing 4$  through the wedge  $\varnothing 8$  body space and the adjutment profile.
- 5) Fix the adjustable frame with the large screws.
- 6) After adjusting with the grub screw fasten the assembly with the long screw.



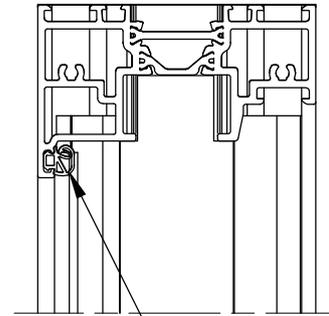
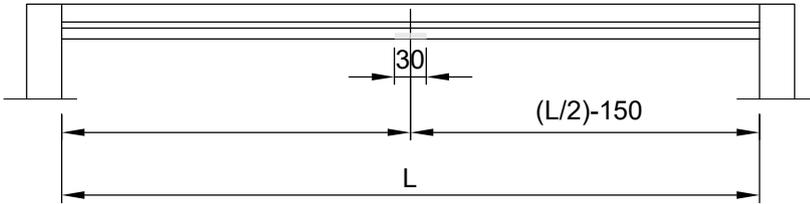
# Assembly of rebate TPW1202 on frame



# Assembly of gasket T410010 on the open in frame

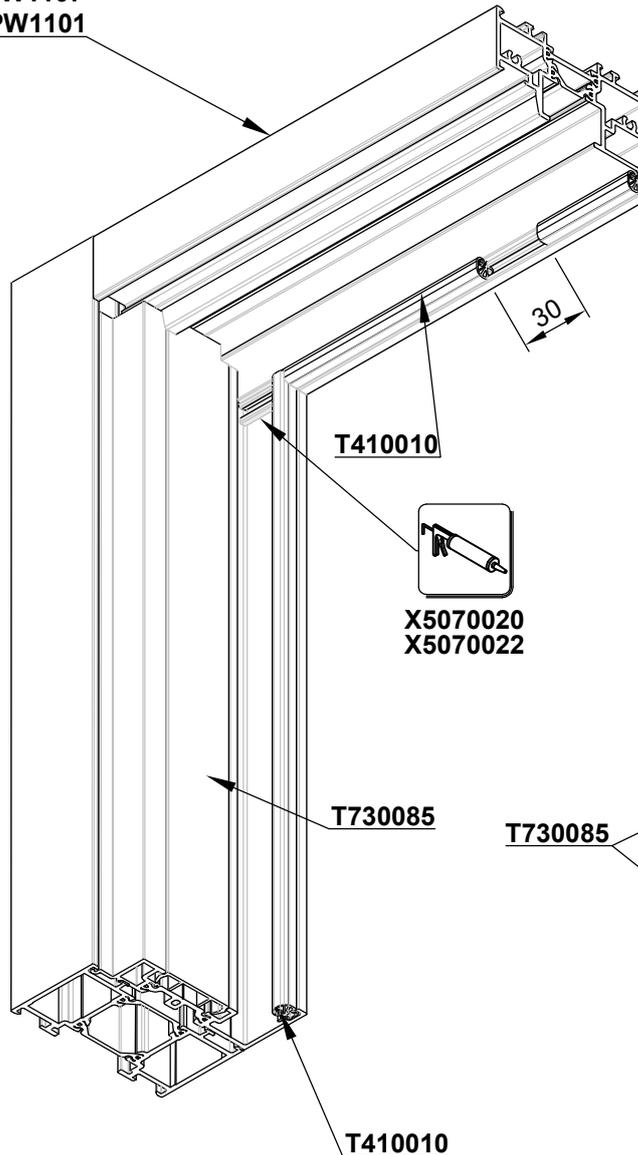


Cut out of gasket for pressure equalization

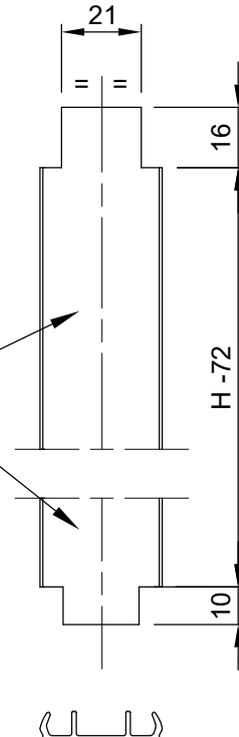


T410010

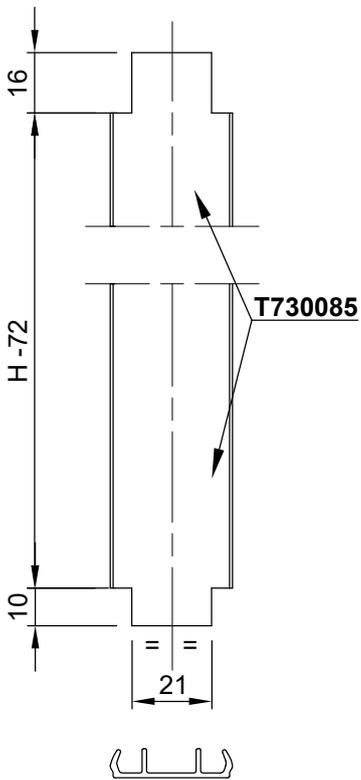
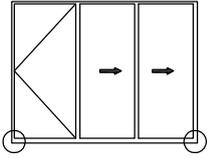
TPW1110  
TPW1107  
TPW1101



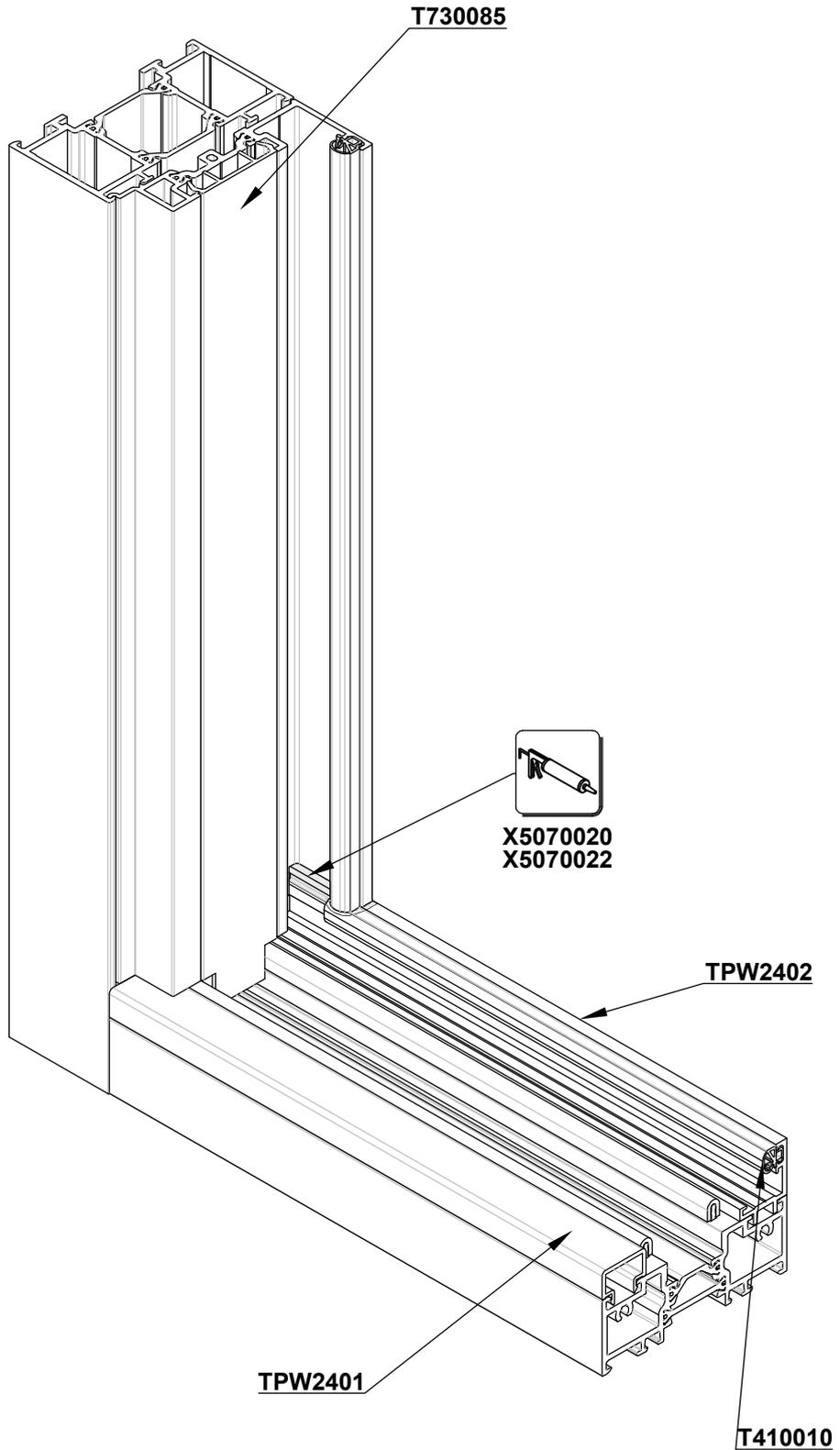
Cut out variant of the cover T730085



Outer frame assembly  
**Sealing of frame rebate**



Cut out variant of the cover **T730085**

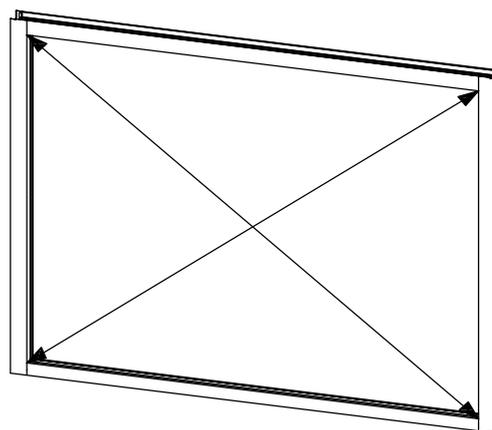
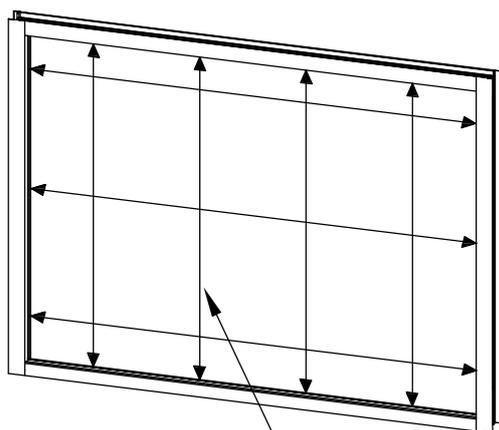


## Checking the diagonals/levels/plumbs

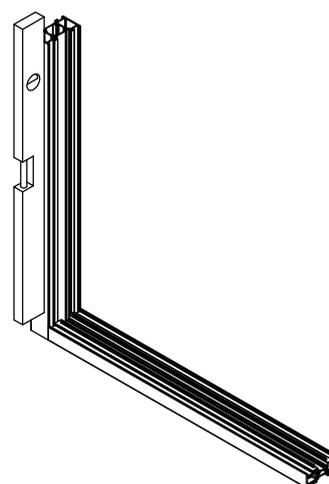
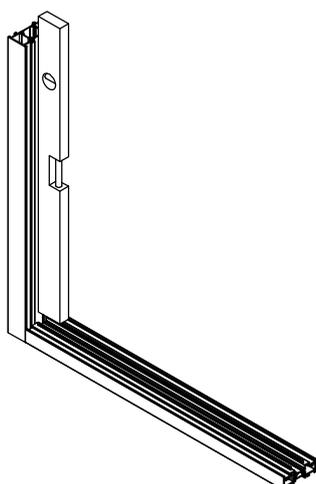
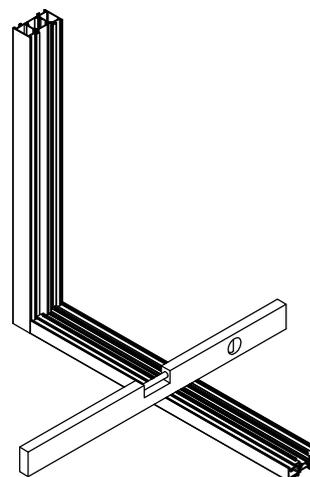
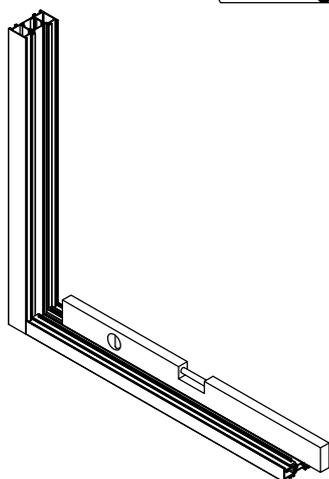
Use fixing parts suited to the support.

1. Attach the frame to the bearing structure and adjust the position of the door by positioning the linear threshold or support shim every 300mm.
2. Check the bottom dimensions of the door at several points (See Checking the diagonals A and B (difference less than 2mm) and the interior dimensions).

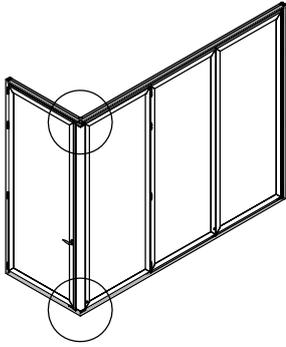
Checking the diagonals/levels/plumbs



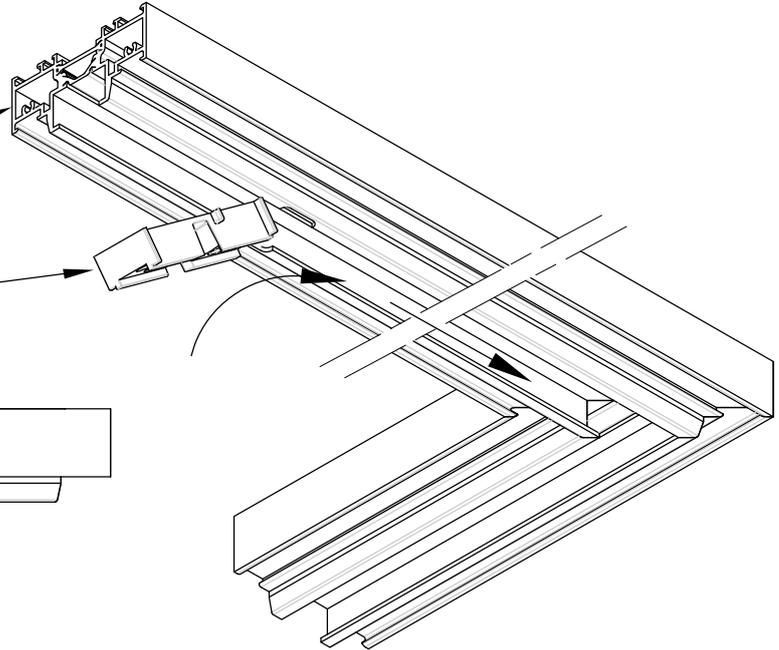
Make a gauge rod



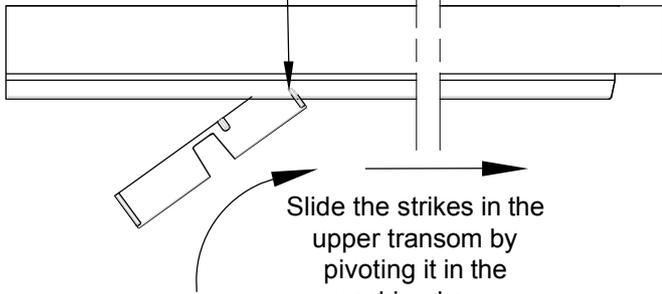
# Assembly of the strikes TPW6016



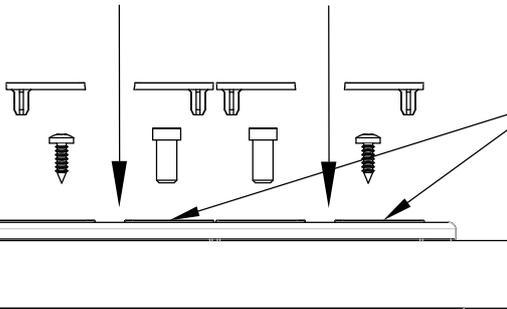
TPW1107  
TPW1101  
TPW1110



TPW6016



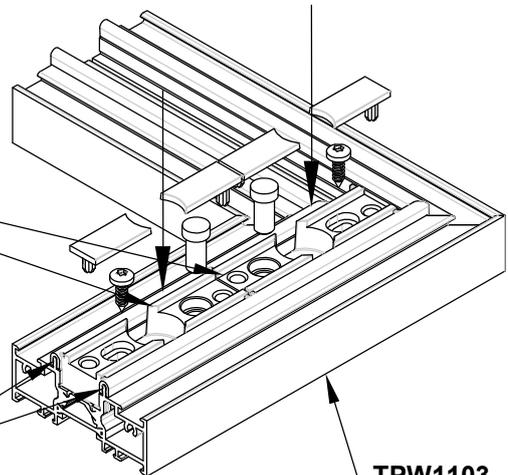
Slide the strikes in the upper transom by pivoting it in the machined area



TPW6016

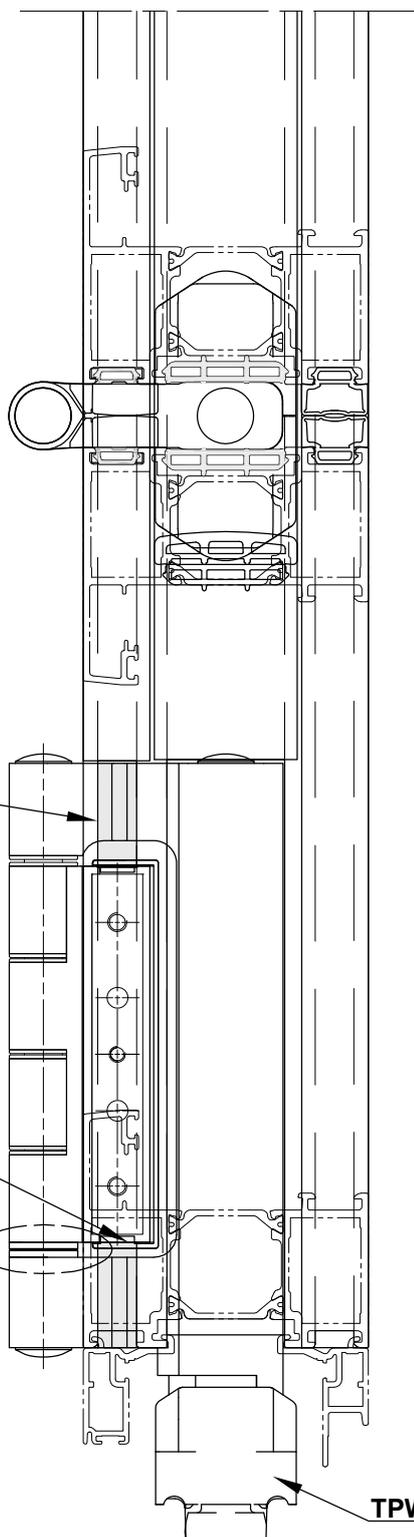
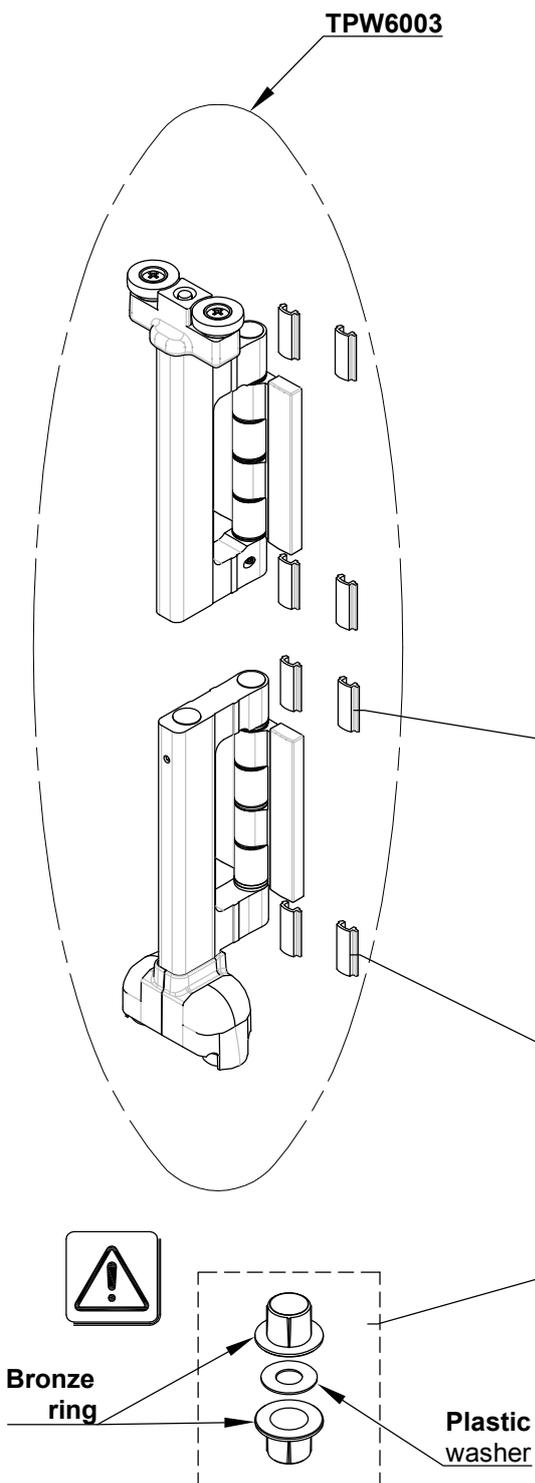
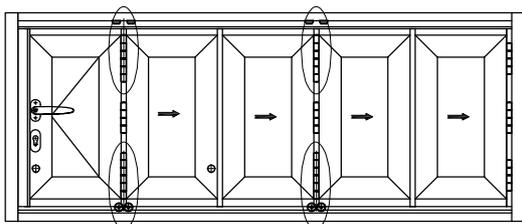
TPW6016  
Put the strike plate in the profile TPW4000

TPW4000



TPW1103  
TPW1100

# Wedging of top/bottom rolling set



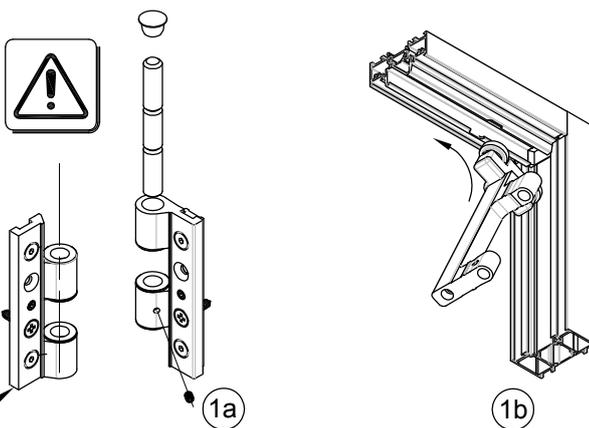
TPW6003

# Hinging the leaves

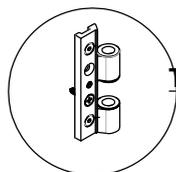
**First leaf:**

1a- Disassemble the set screws Hc M4 (hex key 2mm) locking the pins of all hinges not assembled top and bottom (including bogies top and bottom ones). Do not unscrew the intermediate hinges ones.

1b- Insert the top roller trains in the groove of the top transom of the frame.

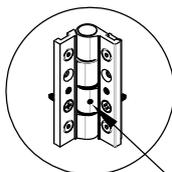


**TPW6005**



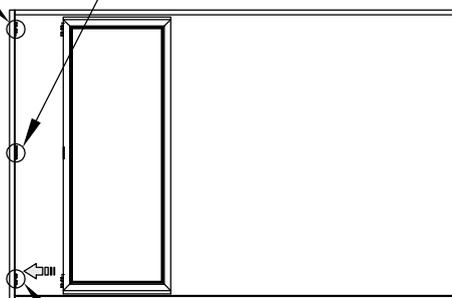
**TPW6005**

**TPW6011**

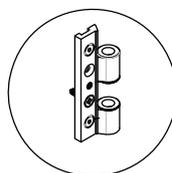


Do not remove the central screws except in case of use of d hinge **TPW6006**

2 - Install the first leaf on the bottom hinge of the frame mullion.

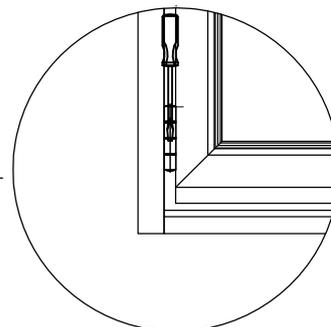
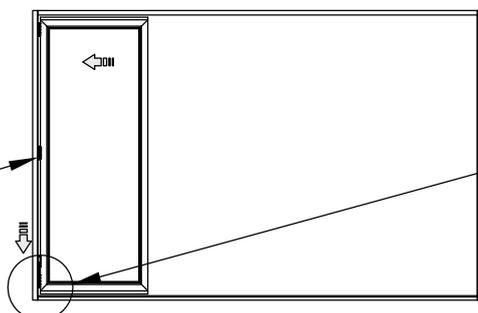


**TPW6005**

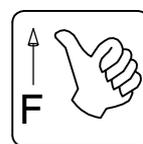
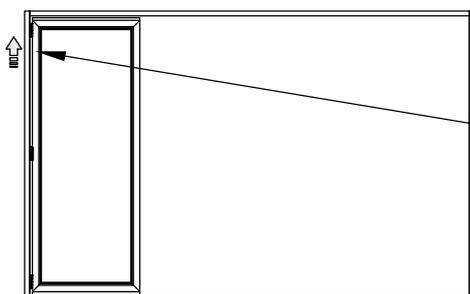


3 - Slide a large screwdriver into the pin housing of the bottom hinge.

**TPW6011**

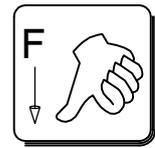
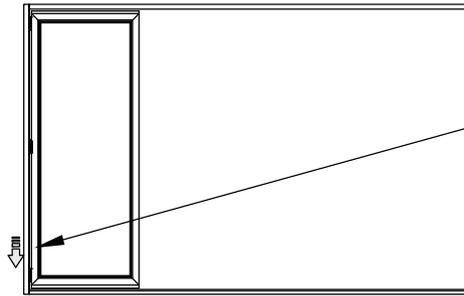


5 - Install the top hinge's pin.

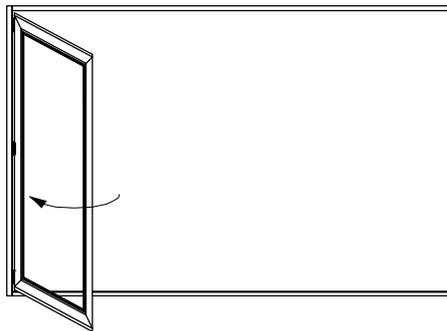


## Hinging the leaves

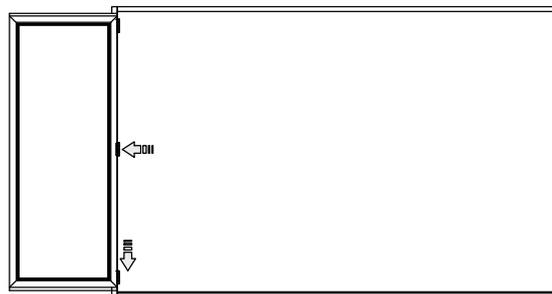
6 - Install the bottom hinge's pin (in place of the screwdriver).



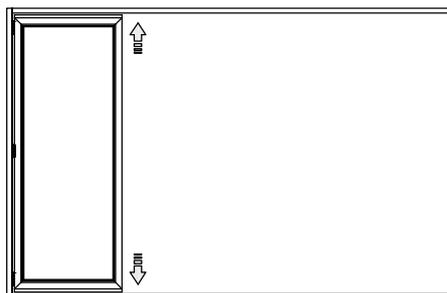
7 - Open the leaf.



8 - Fold back the body of the frame's central hinge on the central hinge insert already on the leaf and screw it. Do the same for the 2nd central hinge.

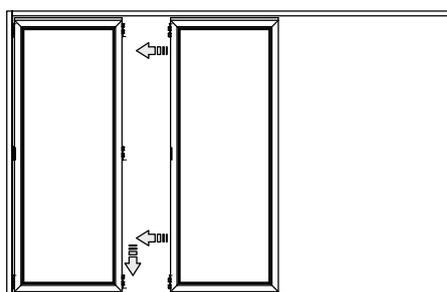


9 - Close and lock the leaf with the cremone gearbox.



### Second leaf:

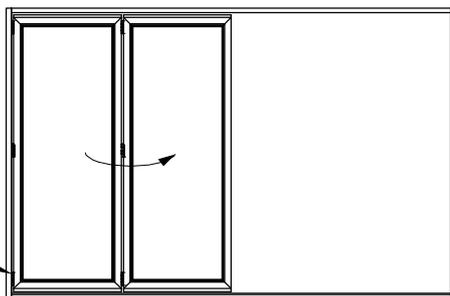
10 - Install the 2nd leaf on the bottom hinge of the 1st leaf.



# Hinging the leaves

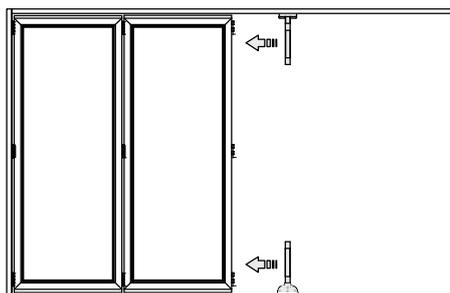
11 - Repeat the same process from phase 3 to phase 8.

12 - Close and lock the first pair of leaves.

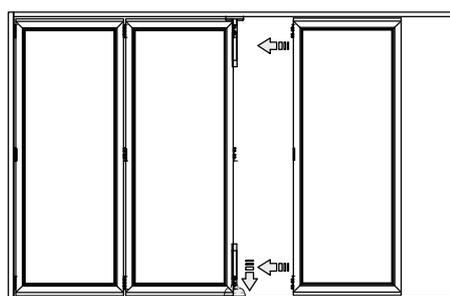


Third leaf:

13 - Bring the roller trains against the leaf. Install the bottom roller train in position on the rails and against the leaf.



14 - Install the 3rd leaf on the bottom hinge of the 2nd leaf.



15 - Repeat the same process from phase 3 to phase 8.

16 - In the case of 6, 8 and 10 leaf applications slide all the top roller trains in the top transom before passing the 1st leaf of the 2nd side.

17 - Correctly position the hinge pins through the hole of the tightening screws.

18 - Check that the locking screws are in place (if rework, a 2nd hole is available on the hinge body).

Installing the glazing:

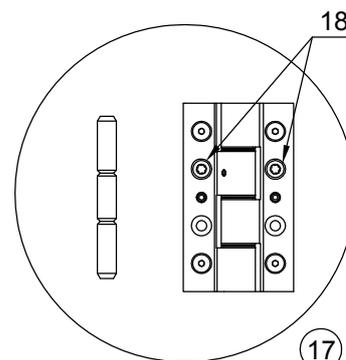
Reminder: The infill support shim is located on the side of the frame or on the bottom roller train. Adjust the glazing clearances by forcing the transoms upwards (2mm). Force the leaf frame downwards to recover the clearances, so it doesn't sag afterwards. Lock the glazing with 4 small lengths of beading (+ gasket), time to finish the adjustments and manipulation of the door.

Adjusting the leaves:

- . Loosen the screw Hc M5 of the body of the bottom bogie body (hex key 2.5mm).
- . Adjust the clearances upwards and downwards with the screw Hc M12 (hex key 6mm) of the bottom roller train.

Brush side 11.5mm  
 Rebate side 6.5mm

} see cross-sections on next pages.



## Wedging of glazing

■ Fitting the glazing:

Note :

The bottom glazing wedge is located on the frame or rollers sides.

Adjust the glazing clearances by forcing the transoms upwards (2 mm).

Force the frame downwards to recover the clearances, so it does not sag afterwards.

Lock the glazing with 4 small lengths of glazing head (+gasket), in order to finish the adjustments and manipulations of the frame.

Check the presence of the self drilling screw in one of the two countersunk holes of each hinge bodies and particularly in the rollers one.

Adjusting the leaves:

. Loosen the screw Hc M5 on the body of the bottom bogie (hex key 2.5mm).

. Adjust the top and bottom clearances with screw Hc M12 (hex key 6mm) of the bottom roller train.

Brush side 11,5 mm  
Rebate side 6,5 mm } see Application with thresholds section

. Install the pull handle TPW6006.

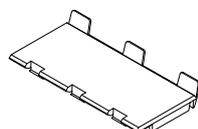
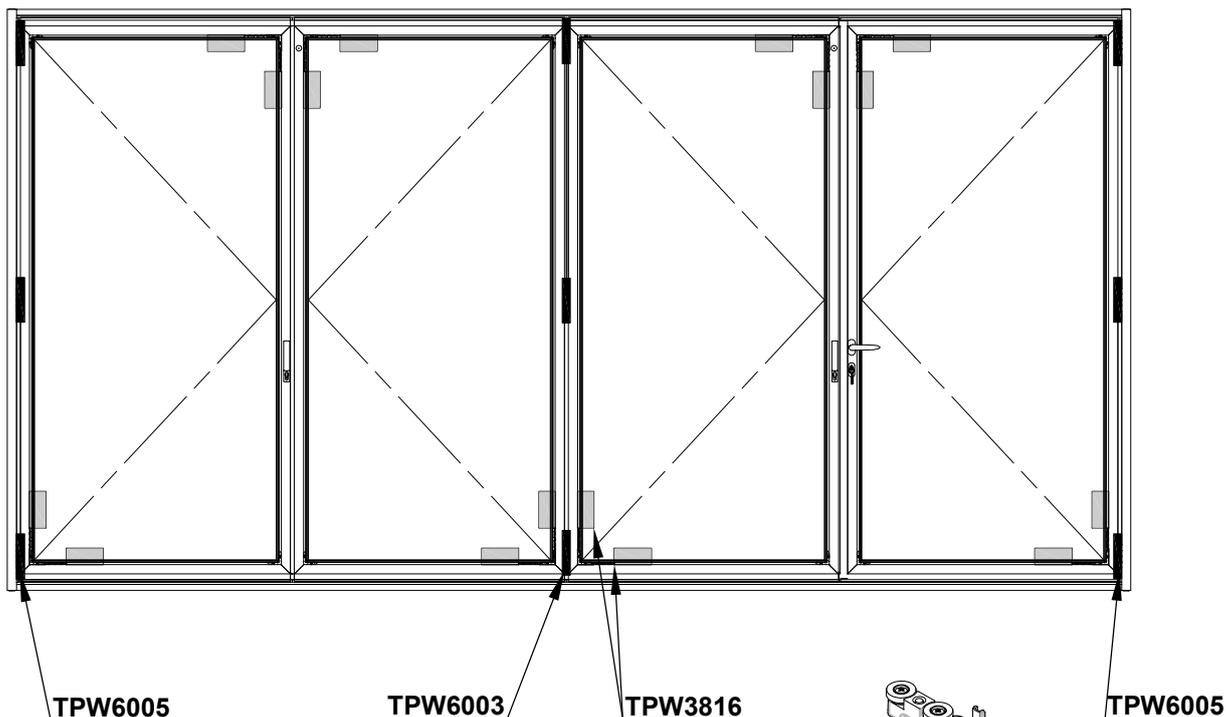
. Fit all the plugs of the hinge pins and the bogie bodies top and bottom.

. Screw the self-tapping screws to lock the hinge bodies (if rework, a 2nd hole is available on the hinge body). Glue the faces of the ends of the screw covers on the upper and lower ends of the hinges.

. Clip the screw caps onto the hinge body and bogies (it's a weatherproofing part).

. Before fitting the final glazing beads, check if the transoms have kept their adjustment, if not reposition.

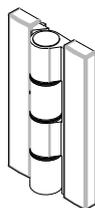
. Install the screws HcM4 (hex key 2mm) after final leaves adjustment to lock the pins of all the hinges and bogies top and bottom.



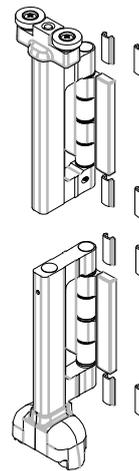
**TPW3816**  
(for TPW1200 or TPW1201)



**T4940079**  
(for TPW1205 or TPW1206)

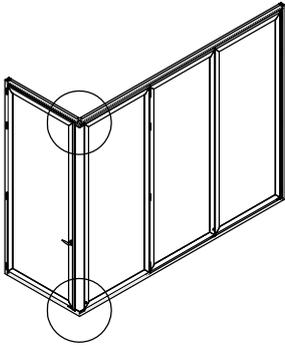


**TPW6005**



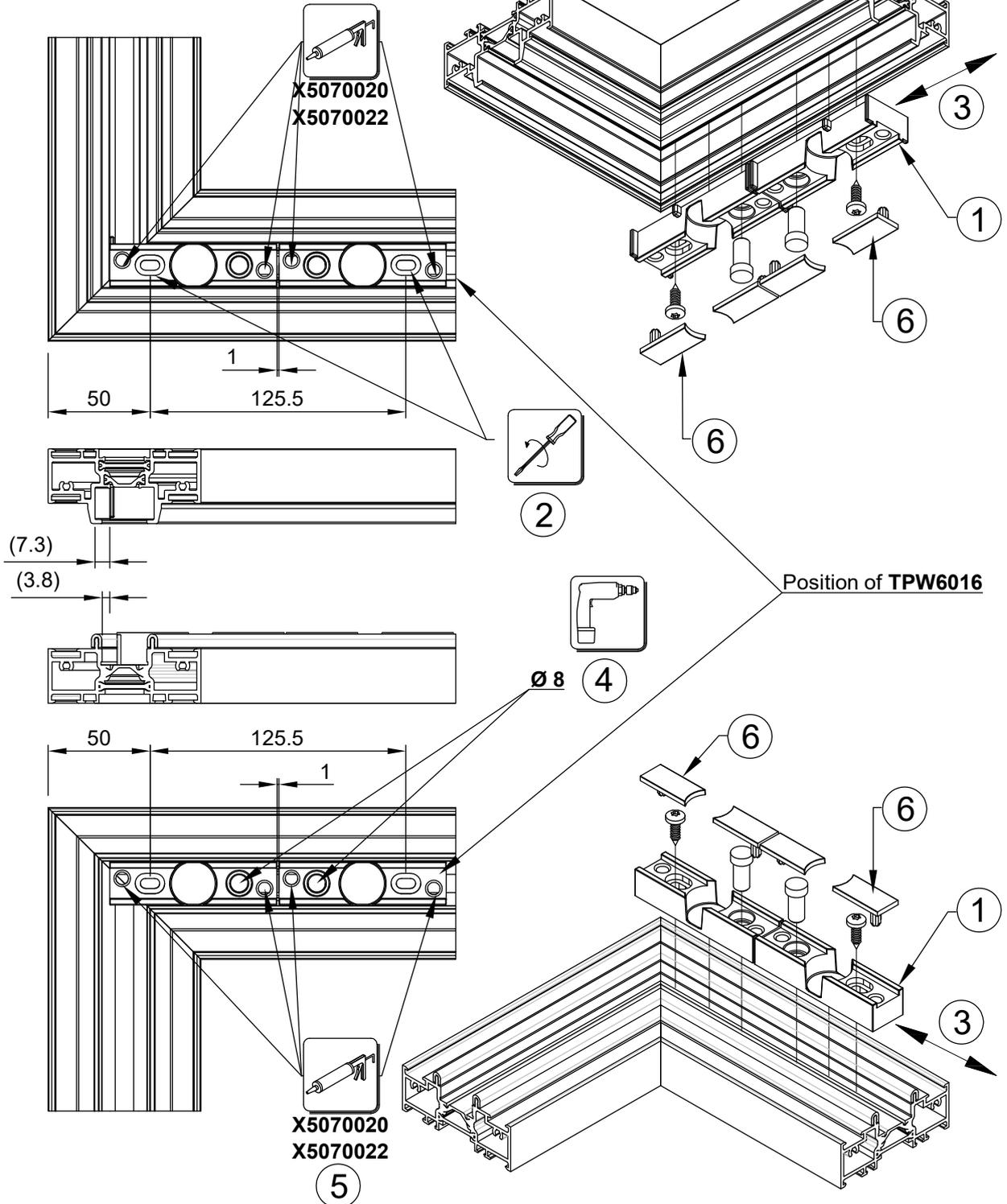
**TPW6003**

# Assembly of the strikes TPW6016



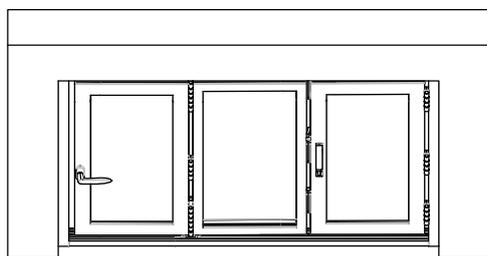
Slide the top strike through the machining slot of the roller sets before the installation of the roller sets.

- ① - Position the strike the axis of the gear box end rod.
- ② - Screw without pre-drilling the screw 4.8 x 16.
- ③ - When leaves are settled, adjust the position of the strike.
- ④ - Drill  $\varnothing 8$  and insert the pin.
- ⑤ - Inject the glue by the 2 holes.
- ⑥ - Put the finish caps.

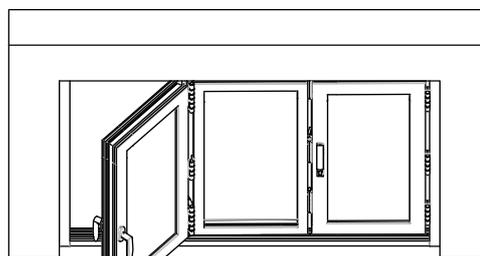




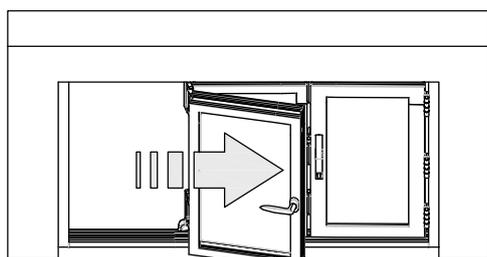
# Opening and closing the door



① Locked position

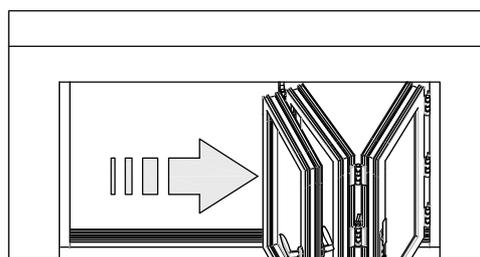


② Open the swing leaf

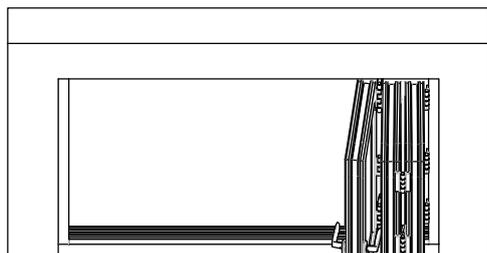


③ Position handle open

③' Unlock the flat handle to release the leaves



④ Open the intermediate leaves



⑤ Opened position

## Opening the door

### Opening the main leaf:

Fully open the swing leaf.

Fold it back to make contact with the magnetic stops.

### Opening the intermediate leaves:

Turn the cremone handle 180° upwards to unlock.

Push the pair of intermediate leaves and fold them.

Push all the leaves towards the frame, and make contact with the last magnetic stops.

## Closing the door

Leave the main leaf in contact with the magnetic stops.

### Closing the intermediate leaves:

Use the end handle to pull all the leaves towards the centre to unfold the intermediate leaves. For an open-out door, pull the handle of the first pair of intermediate leaves on the frame side, turn the handle 180° downwards to lock.

The same for the second pair of leaves, on the main leaf side as suits.

For an open-in door, push the first pair of intermediate leaves on the frame side and turn the handle 180° downwards to lock.

The same for the second pair of leaves, on the main leaf side as suits.

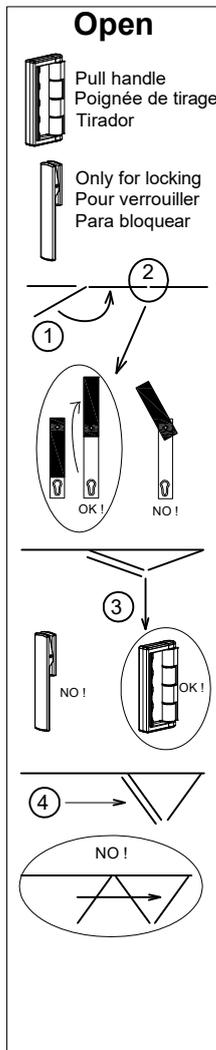
### Closing the swing leaf:

Detach the swing leaf from its magnetic stops and close it.

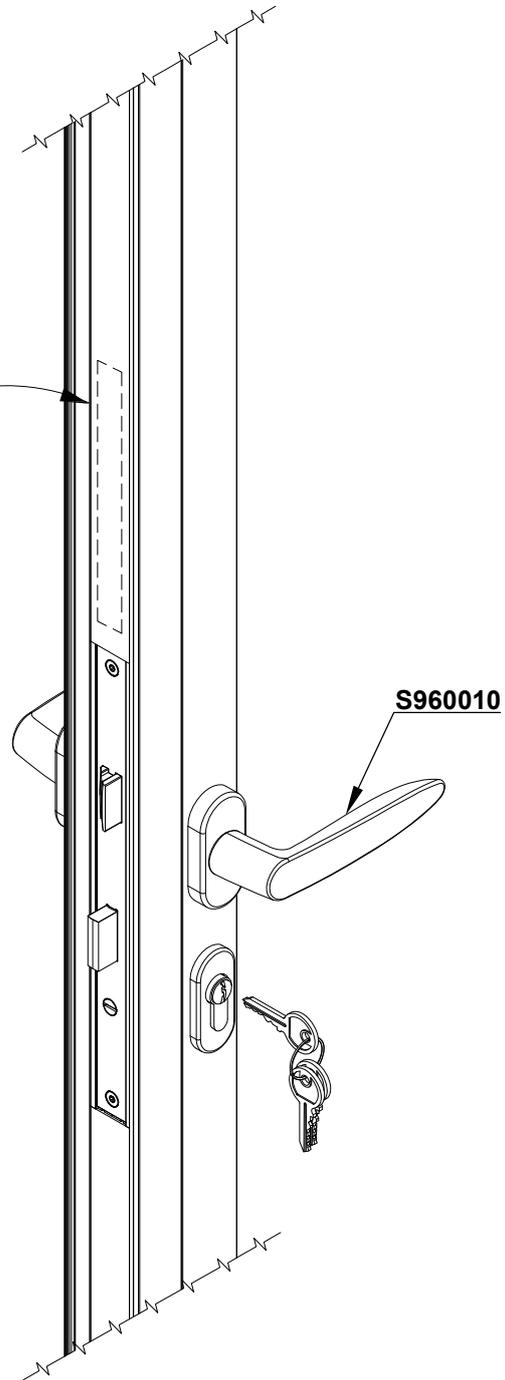
## Installation the label on leaf



Door handling.  
Paste me here for  
the user

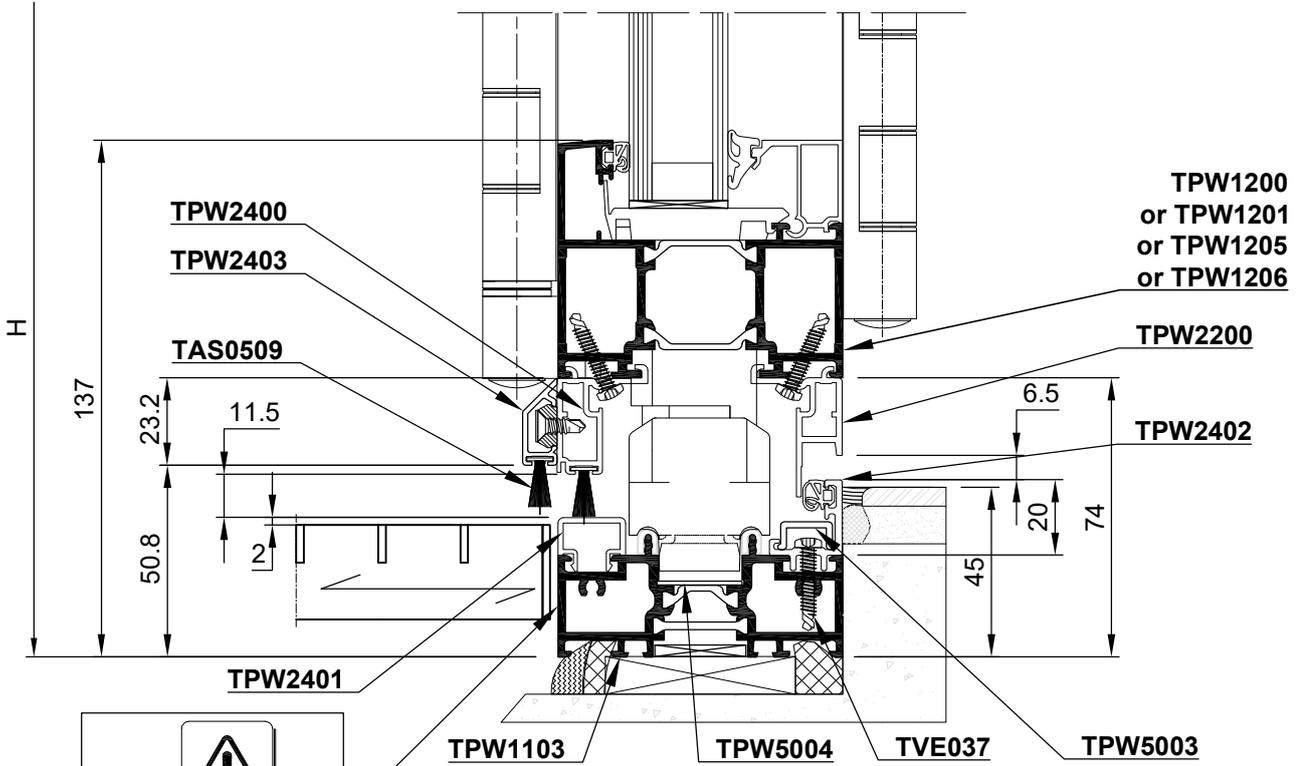


Sticker



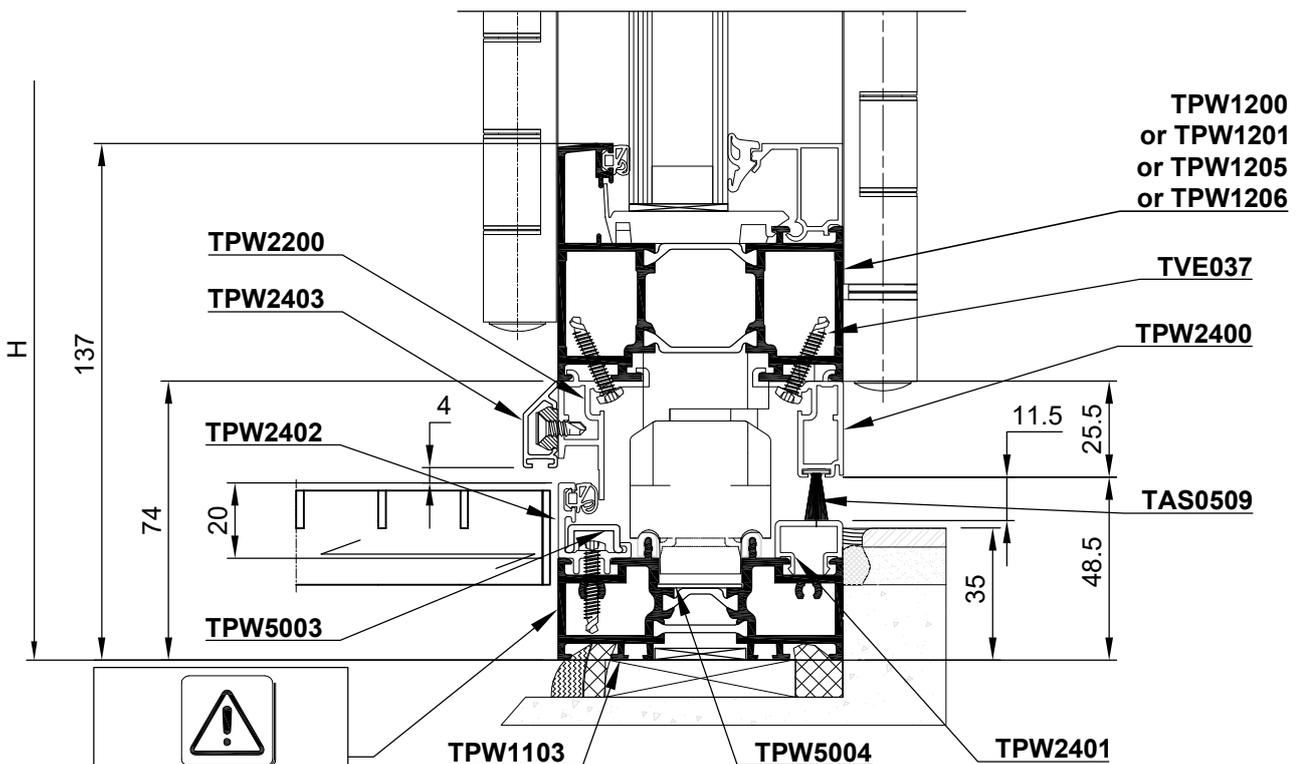
# Rebate low thresholds application

Open Out



  
 Drainage according to installation.

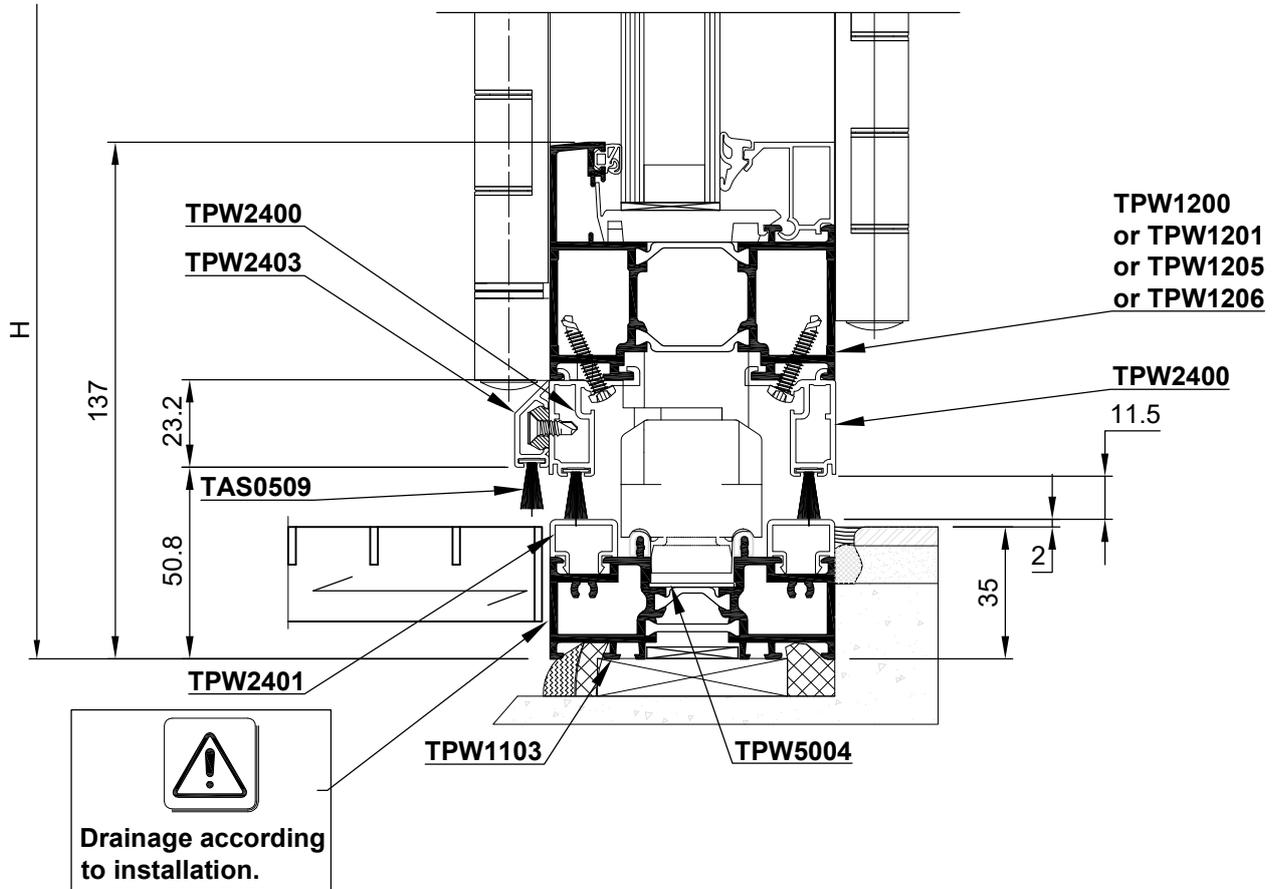
Open In



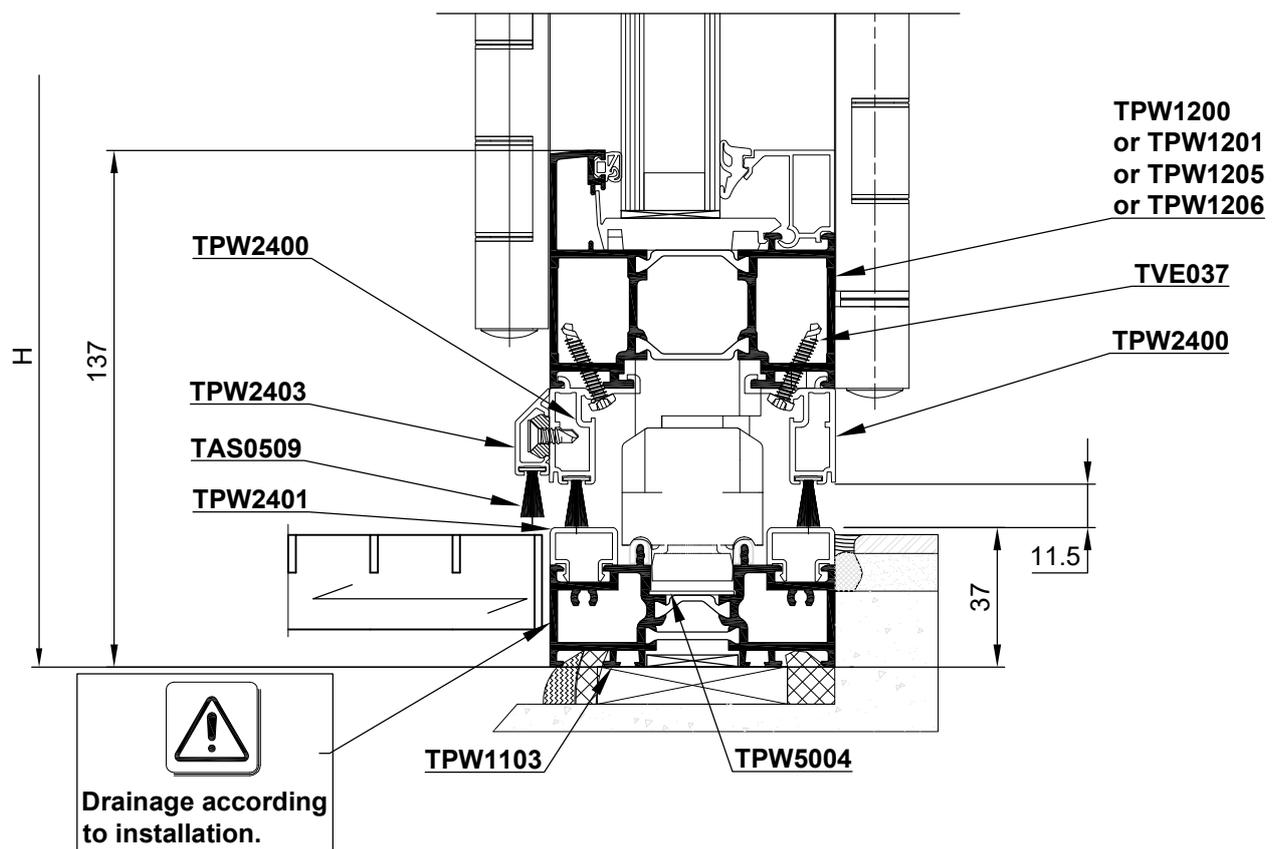
  
 Drainage according to installation.

# Flat low thresholds application

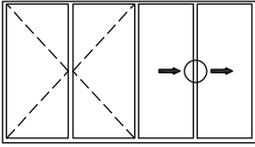
Open Out



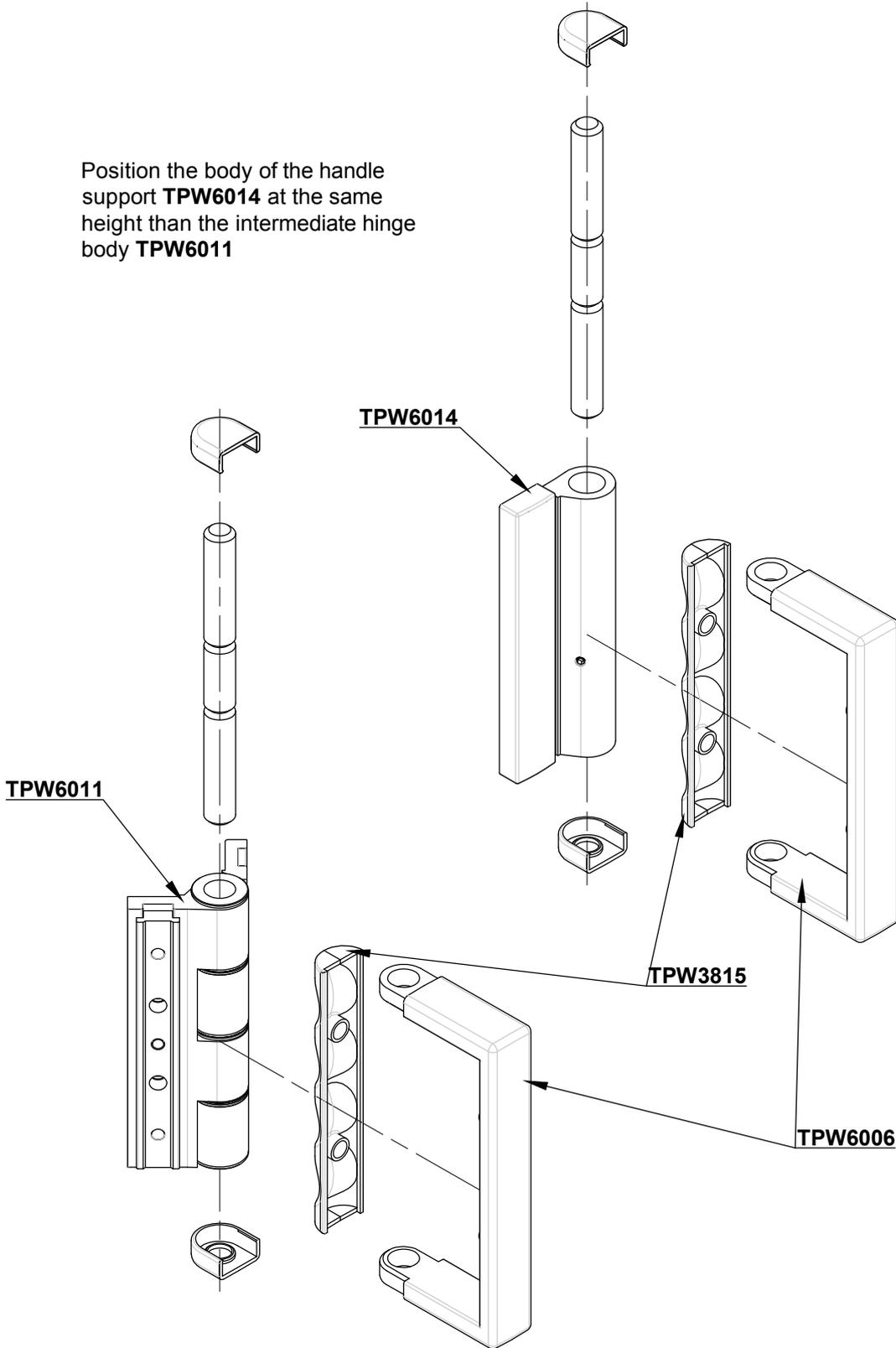
Open In



# Assembly handle TPW6006 on hinge



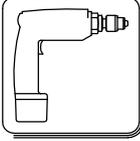
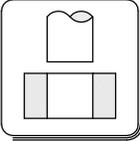
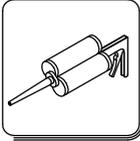
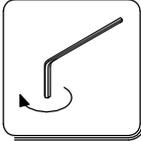
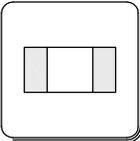
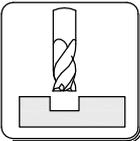
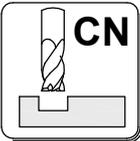
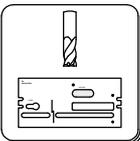
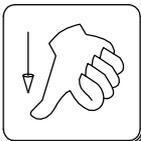
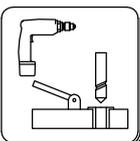
Position the body of the handle support **TPW6014** at the same height than the intermediate hinge body **TPW6011**



**Abbreviations**

<b>APD</b>	<b>= Anti-finger trapping device</b>
<b>BO</b>	<b>= Tilt and Turn (T &amp; T)</b>
<b>BTC</b>	<b>= Sill, flashing, architrave</b>
<b>CC</b>	<b>= Aluminium clip section for glazing bead</b>
<b>DEP</b>	<b>= Right when pushing</b>
<b>EPDM</b>	<b>= Etylene Propylene Diene Monomer</b>
<b>FP</b>	<b>= Door closer</b>
<b>FPI</b>	<b>= Integral Door Closer</b>
<b>GEP</b>	<b>= Left when pushing</b>
<b>H</b>	<b>= Height (H1, H2 ...)</b>
<b>Hcyl</b>	<b>= Height cylinder</b>
<b>Hf</b>	<b>= Rebate height</b>
<b>ho</b>	<b>= Opening frame height</b>
<b>Hp</b>	<b>= Handle height (from bottom of the leaf)</b>
<b>Hp sol</b>	<b>= Handle height / ground</b>
<b>Hv</b>	<b>= Leaf height</b>
<b>HI</b>	<b>= Height lock</b>
<b>Hv1 / Hv2</b>	<b>= Transom height</b>
<b>L</b>	<b>= Width (L1, L2 ...)</b>
<b>Lf</b>	<b>= Rebate width</b>
<b>Lv</b>	<b>= Leaf width (Lv1, Lv2 ...)</b>
<b>OF</b>	<b>= Open in side hung</b>
<b>OB</b>	<b>= Turn &amp; Tilt</b>
<b>OA</b>	<b>= Visible version</b>
<b>OM</b>	<b>= Minimal version</b>
<b>PDA</b>	<b>= Double action door</b>
<b>PF</b>	<b>= Balcony door</b>
<b>PMR</b>	<b>= Persons with Restricted Mobility</b>
<b>PSA</b>	<b>= Single action door</b>
<b>RES</b>	<b>= Residential</b>
<b>SAGP</b>	<b>= Single action left push</b>
<b>SADP</b>	<b>= Simple action right push</b>
<b>SF</b>	<b>= Slave leaf</b>
<b>SFP</b>	<b>= Slave leaf percussion</b>
<b>T1, T2, T3 ...</b>	<b>= Rods</b>
<b>Vtl / Vtx</b>	<b>= Leaf / leaves</b>
<b>VS</b>	<b>= Main leaf</b>
<b>VV</b>	<b>= Swing door</b>

# Symbols

Symbols	Designation	Symbols	Designation	Symbols	Designation
	Important note Warning		Drilling		Screw
	Punching		Inject glue		Key (Allen, Torx, ...)
	Machining		Sealing Sealant EPDM compatible		hit
	Milling		Glue		Pin punch
	Machining by CNC machine		Cutting tool		Rivet tool
	Milling template		Pliers		Assembly only manual
	Drill jig		Pliers for folding		Head type and dimension
	Tools		Visual landmark		



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