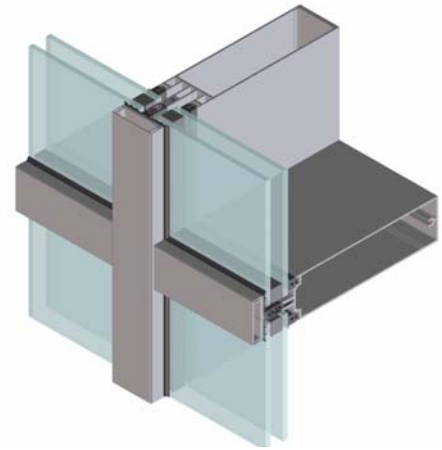
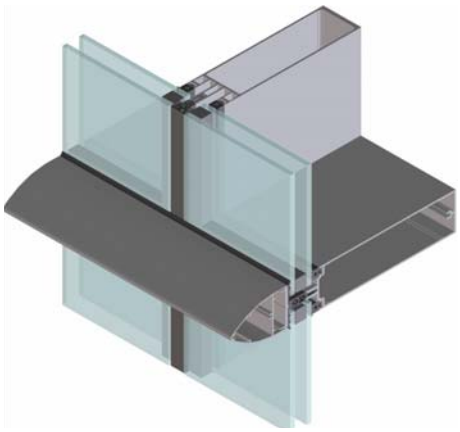
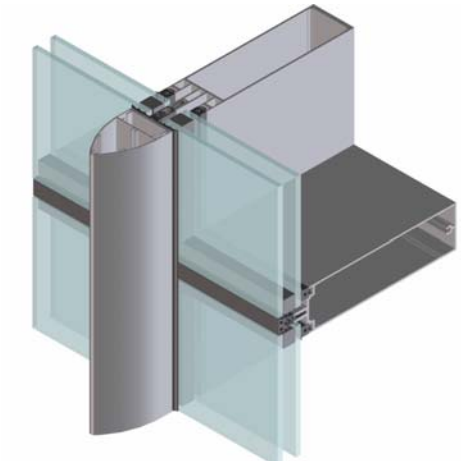


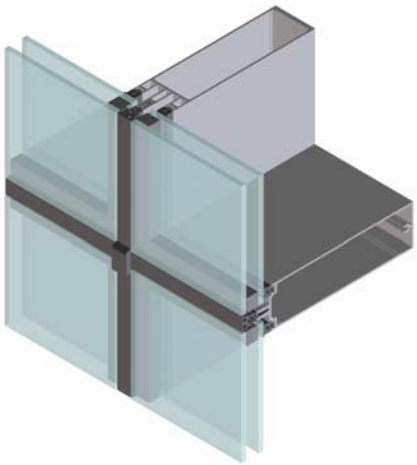
Capped



2sided SGH



2sided SGV



4sided SG

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ARCHITECTURAL ALUMINIUM SYSTEMS

Installation Guide for Erecting Comar 6EFT Curtain Wall System.

1 On-site / project conditions

The structural surface to which the brackets will be attached must be rigid steelwork or concrete floor-slabs and must be within tolerances.

- The fixing bolts and inserts must be adequate for structural requirements and site conditions. (Please consult your structural engineer)

2 Wall Brackets

Available are standard brackets CW671, CW672, CW673 & CW674. Strength of the bracket and the size of fixing bolts are to be verified and specified by a structural engineer.

Single or a two-field span?

- Wall brackets must be installed in position as defined and be lined out to allow the mullion to expand freely.
- In case of **a single field span**, one bracket should transfer the wind/dead load and should be fixed. The second bracket (or coupling sleeve) must slide to allow the mullion to expand.
- In case of a **two-field span**, one bracket should transfer the wind/dead load and should be fixed. The middle and the third bracket (or coupling sleeve) must slide to allow mullion to expand.

Please refer to EFT Technical Manual section 7 for further details of wall brackets, fixing methods, fixing materials, expansion joints and the choice of a hanging or standing construction.

For details please refer to EFT drawings 7.00 – 7.05.

3 Coupling of Mullions

If the building height requires coupling of mullions, a mullion sleeve of sufficient length must be used. (Minimum length should be 600mm; length depends on position of mullion coupling and wall bracket. Length to be decided and verified by a structural engineer). Also the EPDM mullion expansion moulding (EFT 2030) needs to be installed in such a way to allow the mullion to expand.

- Fix mullion sleeve to one (end of) mullion only (7.01 or 7.02).
- Apply sealant at drainage channel in the top mullion and install EPDM coupling mould EFT 2030.
- Clean off excess sealant.

For details please refer to drawings 7.03, 7.05 & 7.40.

Installation Guide for Erecting Comar 6EFT Curtain Wall System.

4 Mullion-Transom Connection

The Mullion-Transom connection is designed so that notched transoms are secured to the gasket groove on the mullions.

There are several installation methods such as:
1. Fasten mullions first and clip in transoms afterwards.
2. Fasten pre-fabricated ladders (units of practical sizes) and clip in transoms connecting the ladders. (Please refer to drawing 7.11)

The second option is the most practical method, however, the choice of installation method will depend on the size of the project, the preferred working methods of the fabricator/installer, possible access to the building as well as installation equipment available etc.

For all methods of installation, different mullion-transom cleats and connection components are available:

- When mullions or ladders are installed already, use spring-loaded cleat, EFT 2310, for transom fixing.
- Prefab units (ladders) screw EFT 3022 or transom cleat for transom fixing.
- Transoms must be fixed overlapping the mullion and must be sealed by a special EPDM seal EFT 2028 and fixed with screws EFT 3021.
- Set torque to fix transom screws EFT 3021 at a turning moment of 2,5 Nm,
- Allow for a minimum of 0.5 mm space for expansion at both ends of transoms.

For details please refer to drawings 7.34.

5 Spandrel and glazing adaptors

For different glass and spandrel panel thickness or segmented facades, glazing adaptors are required, the following needs to be observed:

- Seal the gasket groove at the transom ends.
- To seal the vertical glazing adaptor inject sealant at the end of the adaptor and apply sealant at edges of the horizontal glazing adaptor.
- When the vertical glazing adaptor is bridging a coupling of 2 mullions it is advisable to have a joint gap to the adaptor equal to that of the mullion, to be located below the mullion joint. The upper adaptor to be fixed in position above mullion joint. Apply sealant to joint.
- Factory fitting of adaptors to be screw fixed with minimum of two screws with fixings not more than 1m apart.

.

6 Thermal break / Isolator

- Install the correct thermal break size as advised as per glazing tables.

7 Glazing gaskets and EPDM corner mouldings (inner seal)

The inner seal gasket is the most important seal to avoid air and water ingress, Comar 6EFT is pressure equalised allowing small amounts of water into the glazing rebate which is then drained out via the mullions.

Drainage diverters are designed to drain the water out of the system and sufficient drainage and pressure equalisation slots must be punched into the pressure plates, pressure-plate gaskets and cover caps.

- Apply a sealant into glazing groove before installing the corner moulding.
- Cut EPDM glazing gasket size plus approx. 5 % to ensure compression of the gaskets and allow for shrink back. Apply bonding compound and slide/bond gasket into its position.
- Clean off excess sealant.

For details please refer to glazing tables in section 3 and drawings 7.12 – 7.15, 7.35 & 7.36

8 Drainage diverter

- Select the correct drainage diverter for mullion drainage as per glazing tables.
- Install drainage diverter and inject sealant mastic into hole provided. To achieve a watertight seal, mastic must cover all edges.
- Apply mastic to seal the drainage diverter to the thermal break.

For details please refer to glazing tables in section 3 and drawings 7.12, 7.15, 7.37 & 7.38

9 Glass setting blocks and glazing

- Clean out debris from the glazing rebates and ensure that the drainage routes are clear of obstruction.
- Clip-fit proprietary glass setting blocks into position on the transom making sure that they do not interfere with the drainage grooves. (Approx. 50 mm from corner edge)
- Position 1*, 2* or 3* mm thick location blocks (of correct size) onto fitted glass setting block, ensuring that it is positioned centrally in accordance with glazing tables.

1mm block (**5mm gap) for Comar 6EFT 2sided vertical and Comar 6EFT 4sided curtain walling.

Installation Guide for Erecting Comar 6EFT Curtain Wall System.

2mm block (**7mm gap) for Comar 6EFT curtain wall and Comar 6EFT 2sided horizontal with setting blocks XX2301, XX2305 & XX2306, 3mm block(**7mm gap) to all other glass setting blocks.

- In accordance with current relevant Health and Safety legislation, use proprietary glass suckers to lift the glass unit, onto the location blocks and fit into the glazing rebate. Ensure that there is a minimum of 5** to 7** mm ventilation gap between the edge of the glass pane and the curtain wall frame, for the full perimeter of the glass unit.
- Check that the internal glazing gasket fits against the glass face correctly with no tucks in the gasket leg.
- Fix glazing aids to hold the glass unit into its position.

For details please refer to drawings.

10 Pressure-plate gasket.

The pressure-plate outer gasket stops water ingress into the system; to ensure a tight seal close attention to this gasket is required in the cruciform area.

Comar 6EFT curtain wall has 2 options for the outer transom gasket e.g.
1 Single gasket EFT 2162 (or 2163) along with pressure plate EFT 1252 or 1252
2 Duo* gasket combination EFT 2150 + 2150 along with pressure plate EFT 1251

When to use Single or Duo* gasket.

Single and Duo gasket options can be used for all EFT curtain walls.

For single transom gasket conditions, EFT 2162 is sealed (butt joint) against the outer vertical gasket EFT 2162.

For duo gaskets conditions, the vertical outer gasket EFT 2162 overlaps the horizontal Duo* gasket and is not sealed.

- Remove vertical fixed glazing aids, at one side of the glass unit only.
- First select the correct vertical pressure plate gasket (as detailed in the glazing tables) minimising butt joints. All butt joints must be sealed.
- Cut gasket straight, size plus approx. 2 % to ensure compression of the gaskets and allow for shrink back, make sure that gasket is not stretched.
- Ensure that drainage or pressure equalisation slots are correctly positioned.

- **Fix vertical pressure-plate** (see item 11)

- Remove horizontal fixed glazing aids.
- Fix horizontal pressure-plate-gasket and cut this gasket straight. (Plus approx. 2 %)

- Apply sealant against vertical pressure-plate-gasket and slide horizontal gasket against vertical gasket into position.

For details please refer to drawings.

11 Pressure plates

- Pressure plate screw connections should be spaced at intervals of 200 mm. The first and last screw should be fixed at 25mm from the ends of the pressure plate and 50mm from the centre of mullion or transom cruciform.
- Use correct screw-type and length in accordance with glazing tables.
- Install vertical pressure plates first, as mentioned under item 10
- Check both the outer gasket and pressure plate, there should be no protrusion in the outer pressure plate gasket and no depression in the pressure plate, it is advisable to set the torque moment of 3,5 – 4,5 Nm, (specific project requirements might require a different value)
- Make sure the slot for drainage and pressure equalisation is positioned correctly.

- When coupling is required (at least every 6.45 m), leave sufficient space between the pressure plates to allow for expansion.
  (Typically there is approximately 1mm expansion per metre of profile but this varies depending on location of the curtain wall and colour of cover-cap which should both be considered)
- Install horizontal pressure-plate and leave a minimum of 2 mm space between vertical cover cap and horizontal pressure-plate to allow for expansion.
  (Cutting size; C.T.C - 54 mm)

For details please refer to drawings.

12 Cover caps

Vertical cover caps need to be 3mm wider than the horizontal to ensure that there are no raw edges.

Cover caps have a typical edge radius of 1,5mm, edge radii for even distribution of the powder coating layer.

<u>Vertical cover-caps</u>

- First install correct vertical cover-cap.
- When coupling is required (at least every 6.45 m), leave sufficient space between the cover caps to allow for expansion.
  (Typically there is approximately 1mm expansion per metre of profile but this varies depending on location of the curtain wall and colour of cover-cap which should both be considered)
- For some cover caps (75mm and higher) a coupling strip will be available to align the cover caps.
- Fix one screw in the cover-cap and pressure-plate at transom (cruciform) location to let cover-cap expand in one direction only.

- Higher cover caps need to be fixed at each cruciform location, preferably concealed underneath the transom cover and if the vertical span exceeds 1.5m, additional fixing points will be required.
  (A special designed pressure plate (EFT 1253) is available to ease the fixing)
- If drainage is chosen through the vertical cover cap it is advisable to divert the majority of water (drained out of the mullion) to the outside approx. every 20 m A location can be where cover caps are connected.

For details please refer to drawings.

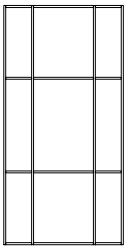
13 Other?

Further questions or suggestions; or if the standard solutions don't meet your requirements, please do not hesitate to contact our office.

Installation 7

Comar 6EFT

Exploded typical detail
Fully capped



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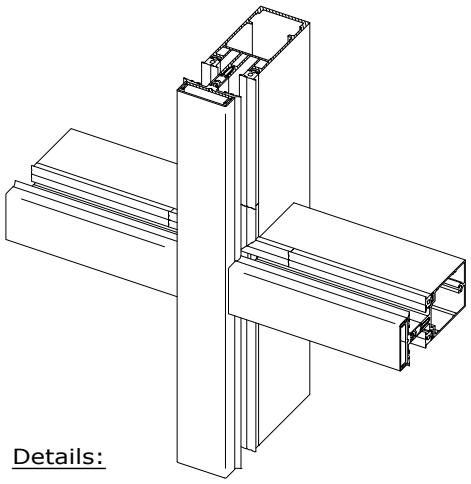
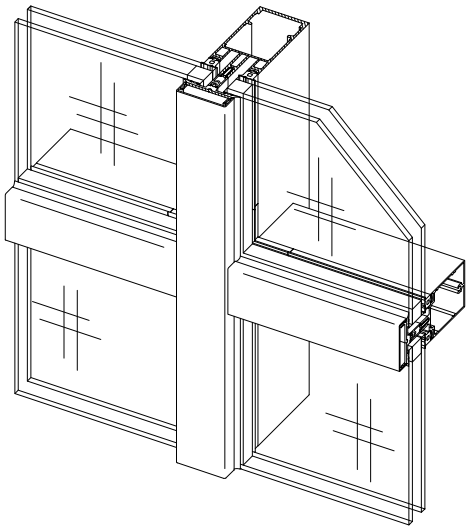
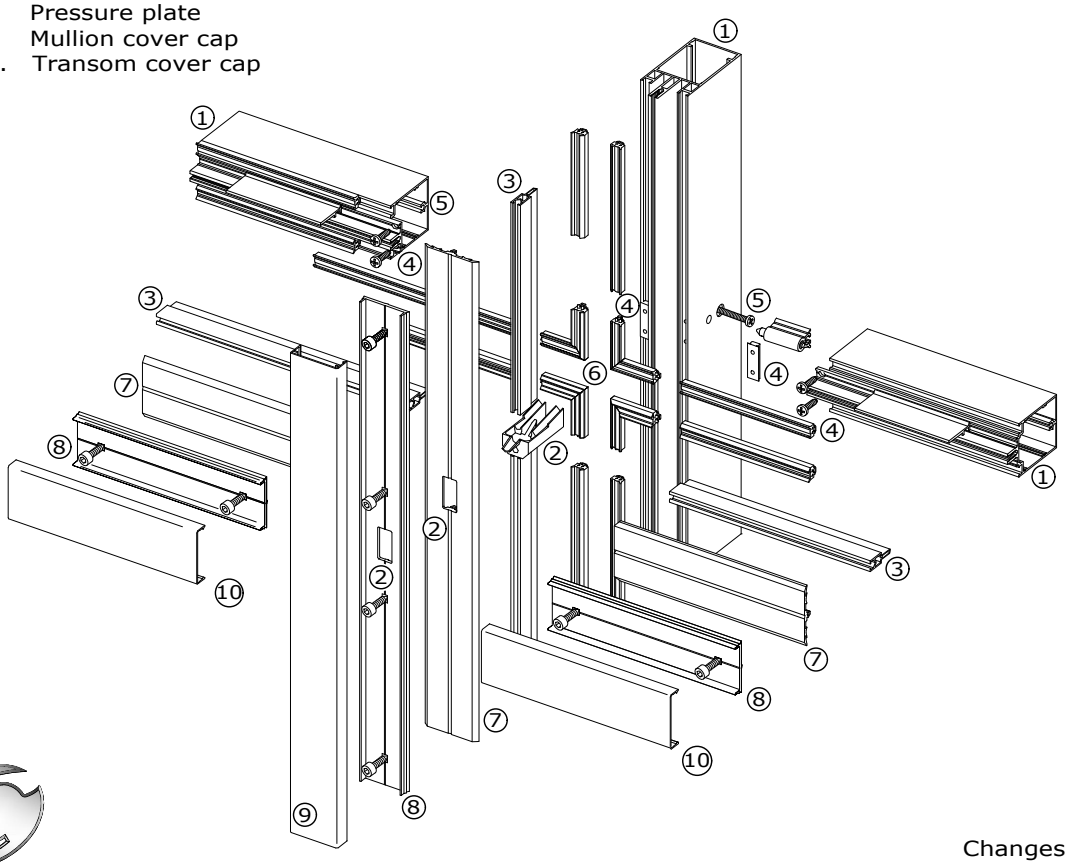




Details:

1. One substructure for all curtain wall types (Fully Capped / 2sided SGH / 2sided SGV / 4sided SG)
2. Controlled drainage system (mullion drained) - drainage diverter
3. Thermal break
4. Mullion-Transom step-cut & sealed by EPDM moulding
5. Ladder (unit) construction or stick build
6. Moulded EPDM corners available
7. Mullion / Transom pressure plate gasket
8. Pressure plate
9. Mullion cover cap
10. Transom cover cap



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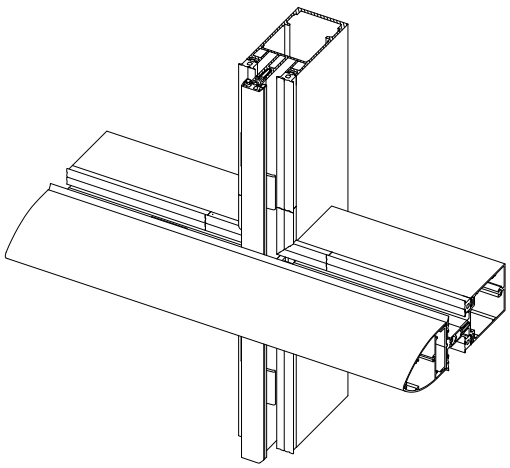
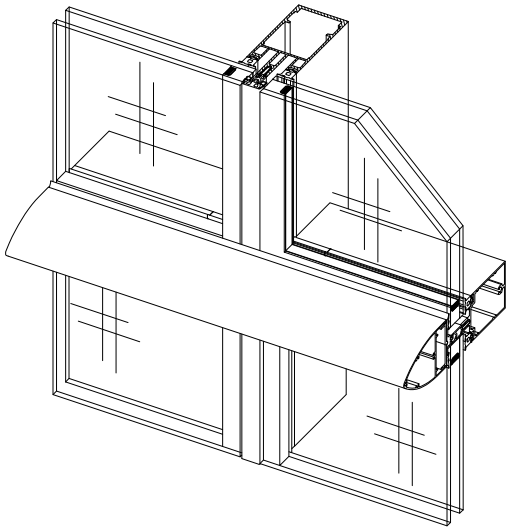
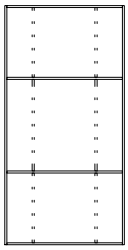
Exploded typical details
Horizontal cover cap (2sided SGH)



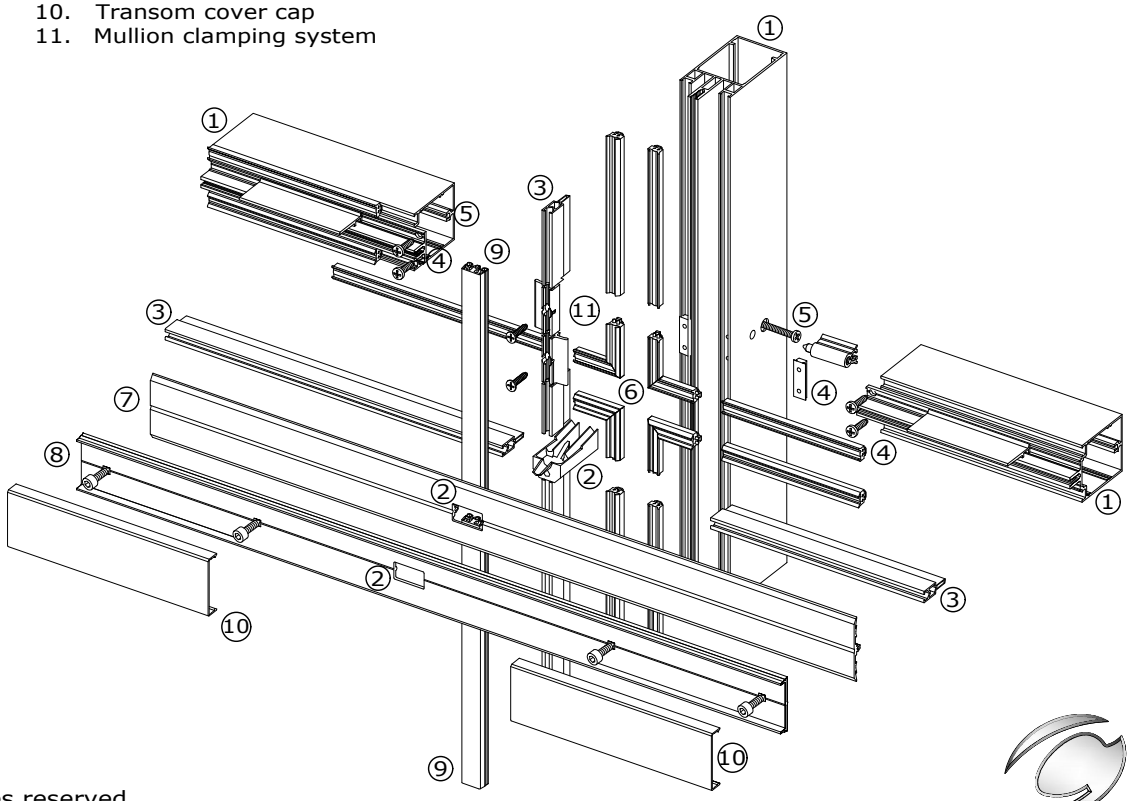




7.01

Details:

1. One substructure for all curtain wall types (Fully Capped / 2sided SGH / 2sided SGV / 4sided SG)
2. Controlled drainage system (mullion drained) - drainage diverter
3. Thermal break
4. Mullion-Transom step-cut & sealed by EPDM moulding.
5. Ladder (unit) construction or stick build
6. Moulded EPDM corners available
7. Transom pressure plate gasket
8. Transom pressure plate
9. Mullion joint gasket
10. Transom cover cap
11. Mullion clamping system



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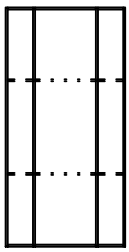
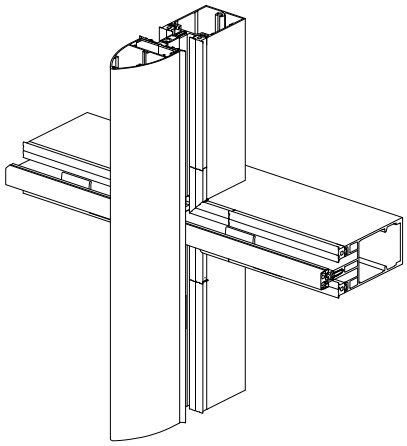
Installation 7

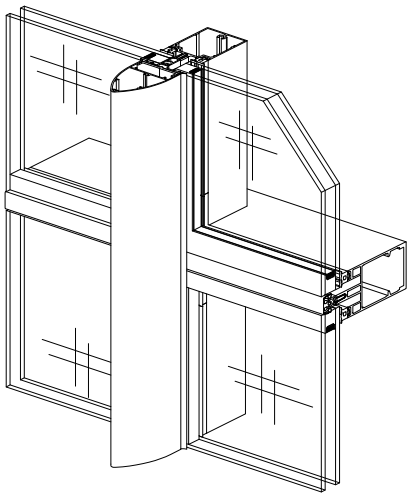
Comar 6EFT



7.02

Exploded typical detail
Vertical cover cap
(2 Sided SGV)

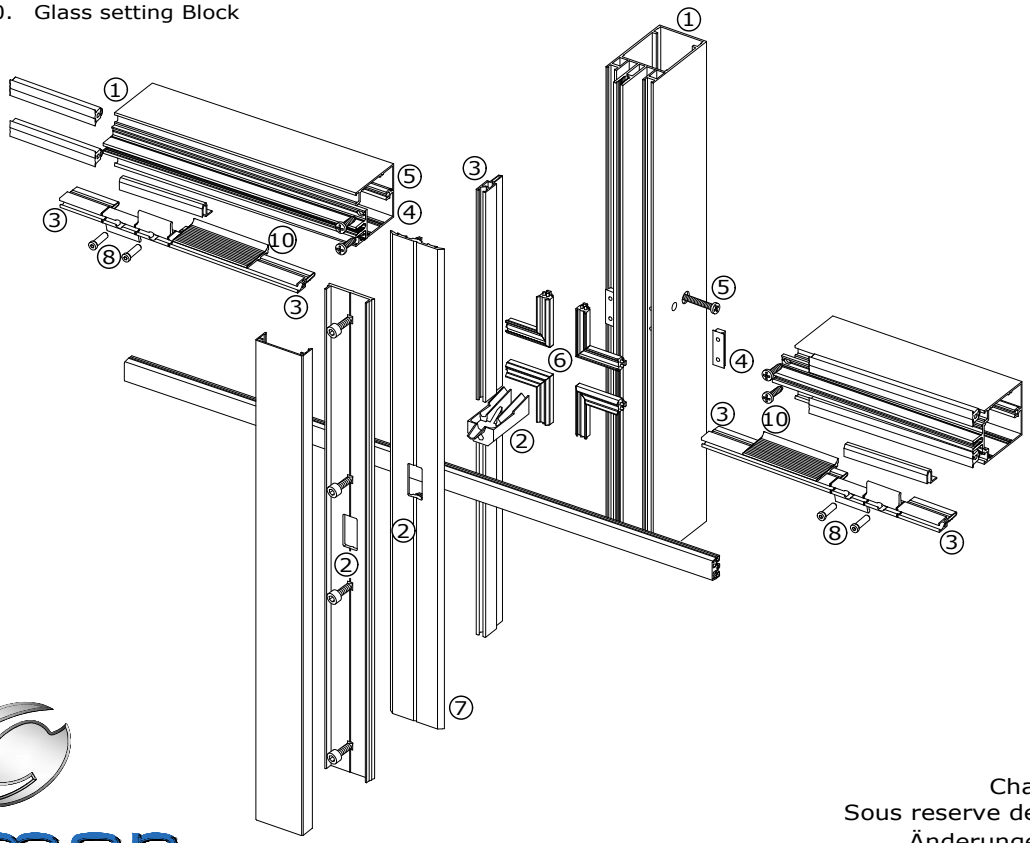




Fabricators Guide

Details:

1. One substructure for all curtain wall types, Fully Capped, 2sided SGH, 2sided SGV & 4sided SG.
2. Controlled drainage system (mullion drained) drainage diverter
3. Thermally broken.
4. Mullion-Transom step-cut & sealed by EPDM moulding.
5. Ladder (unit) construction or stick build.
6. Moulded EPDM corners available.
7. Continuous pressure plate gasket.
8. Glazing clamping system into DG unit.
9. Continuous pressure plate gasket.
10. Glass setting Block



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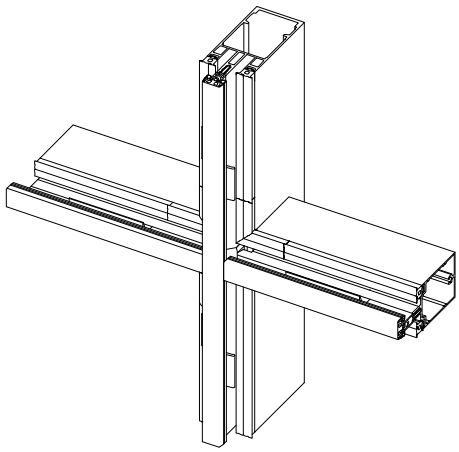
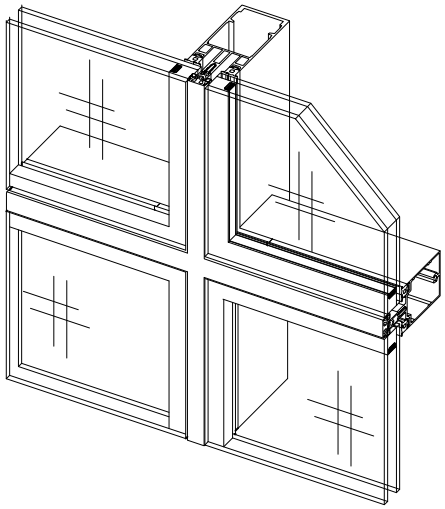
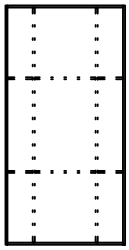
Exploded typical details
Four sided structural EFT (4sided SG)



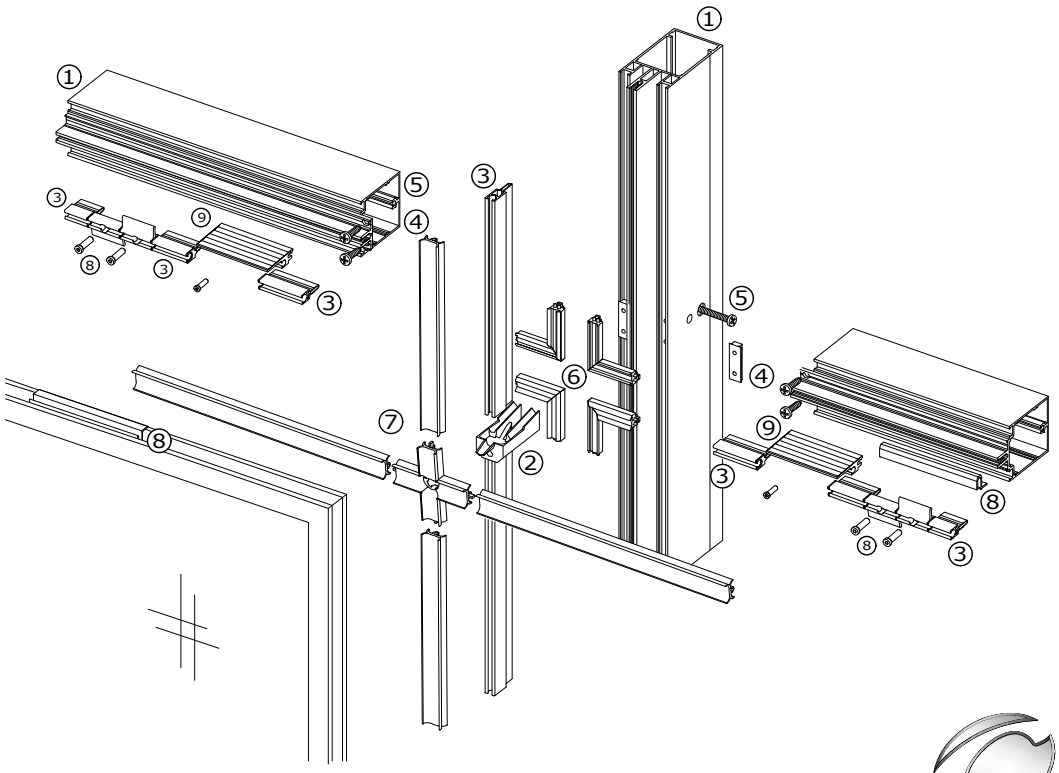




7.03

Details:

1. One substructure for all curtain wall types, Fully Capped, 2sided SGH, 2sided SGV & 4sided SG.
2. Controlled drainage system (mullion drained) drainage diverter/cover
3. Thermally broken.
4. Mullion-Transom step-cut & sealed by EPDM gasket.
5. Ladder (unit) construction or stick build.
6. Moulded EPDM corners available.
7. Joint cruciform gasket.
8. Glazing clamping system into DG unit.
9. Glass setting block



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Fixed between floors

7.04

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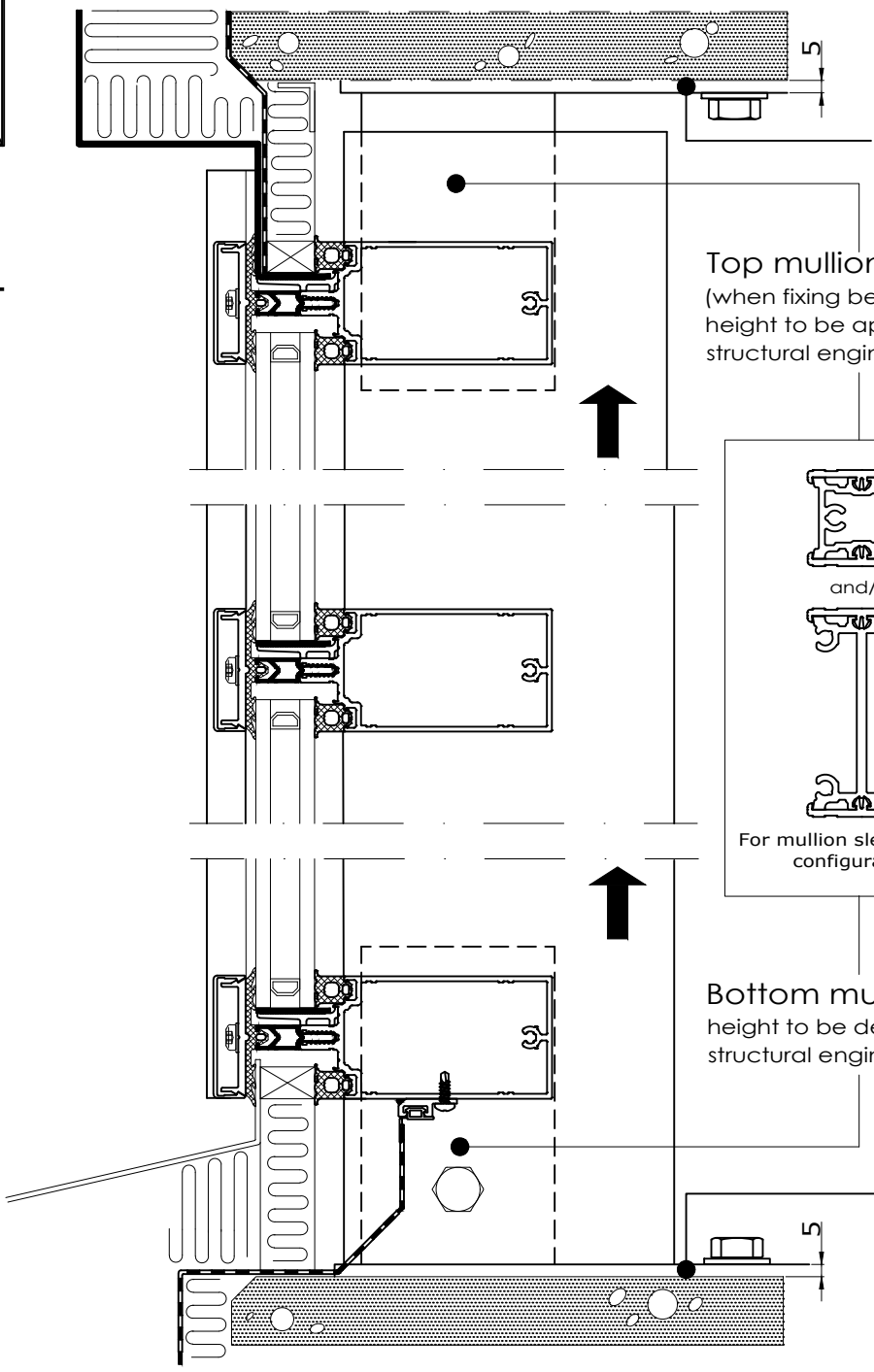

* Standing Construction *

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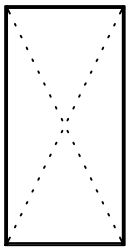
Brackets & Couplings



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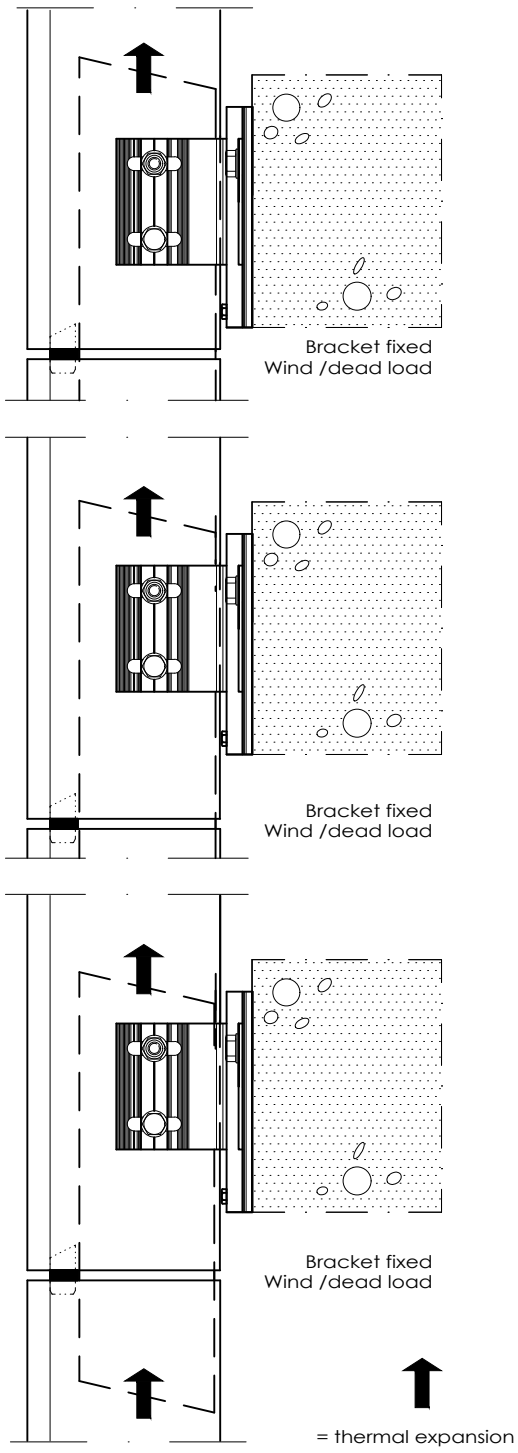
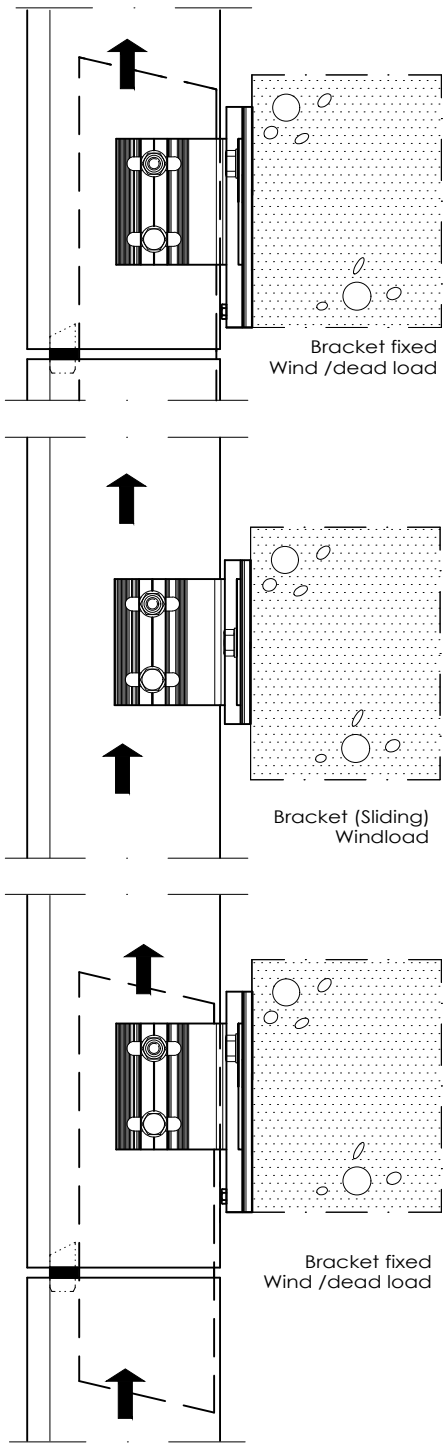


Single Field Span



Two Field Span

* Propped Construction *

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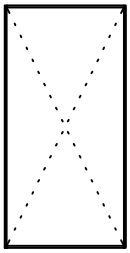
Brackets & coupling



7.06

Fabricators Guide

Single Field Span

Two Field Span

* Hanging Construction *

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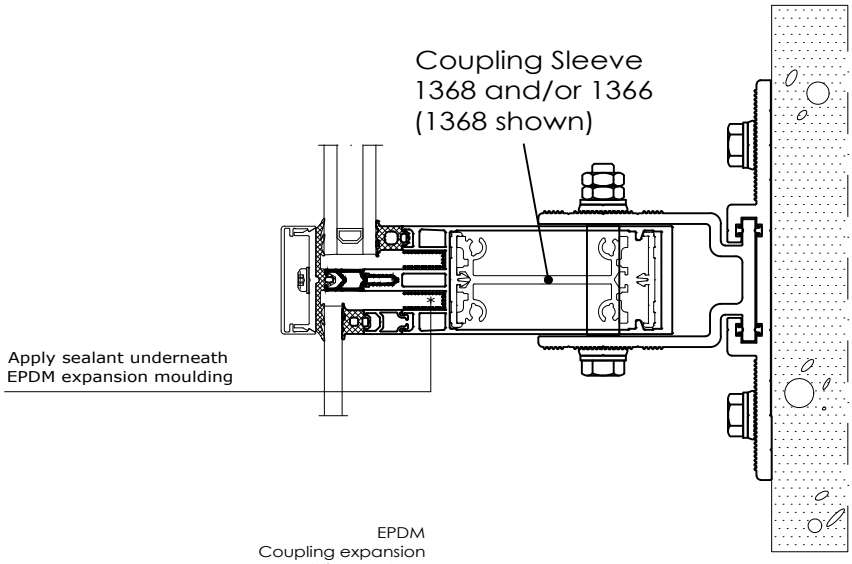
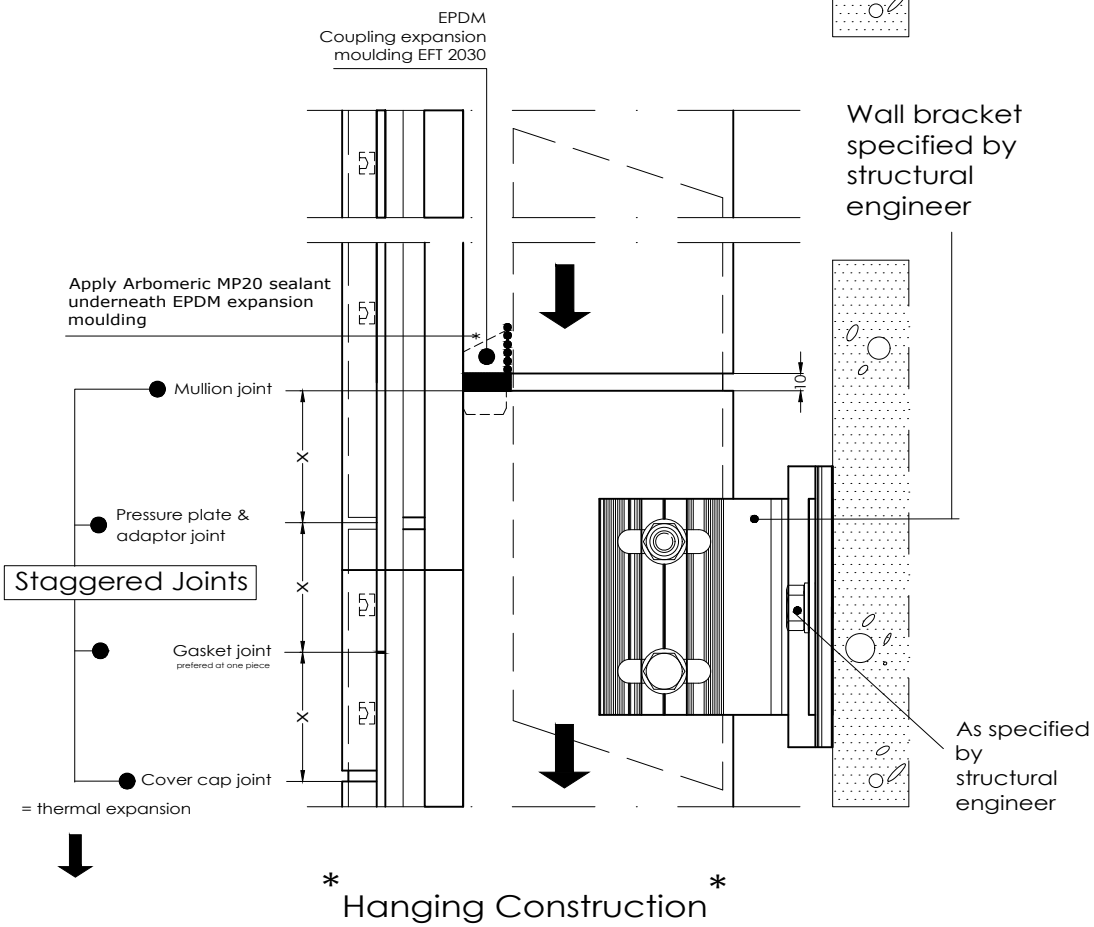
Brackets & Coupling





* Hanging Construction *

7.07

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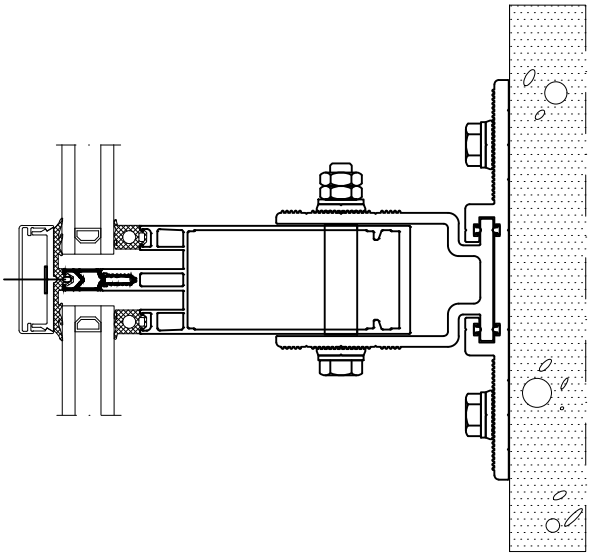
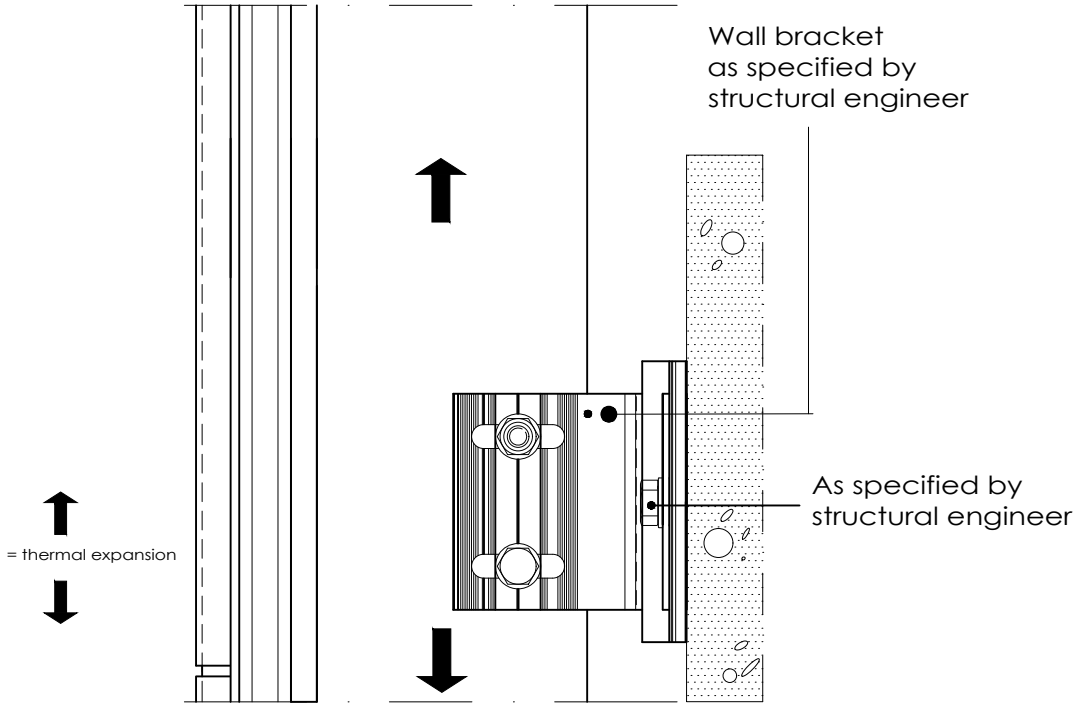
Brackets & coupling

7.08





* Sliding bracket *

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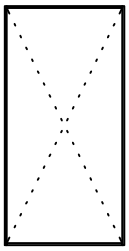
Mullion movement joint preparation



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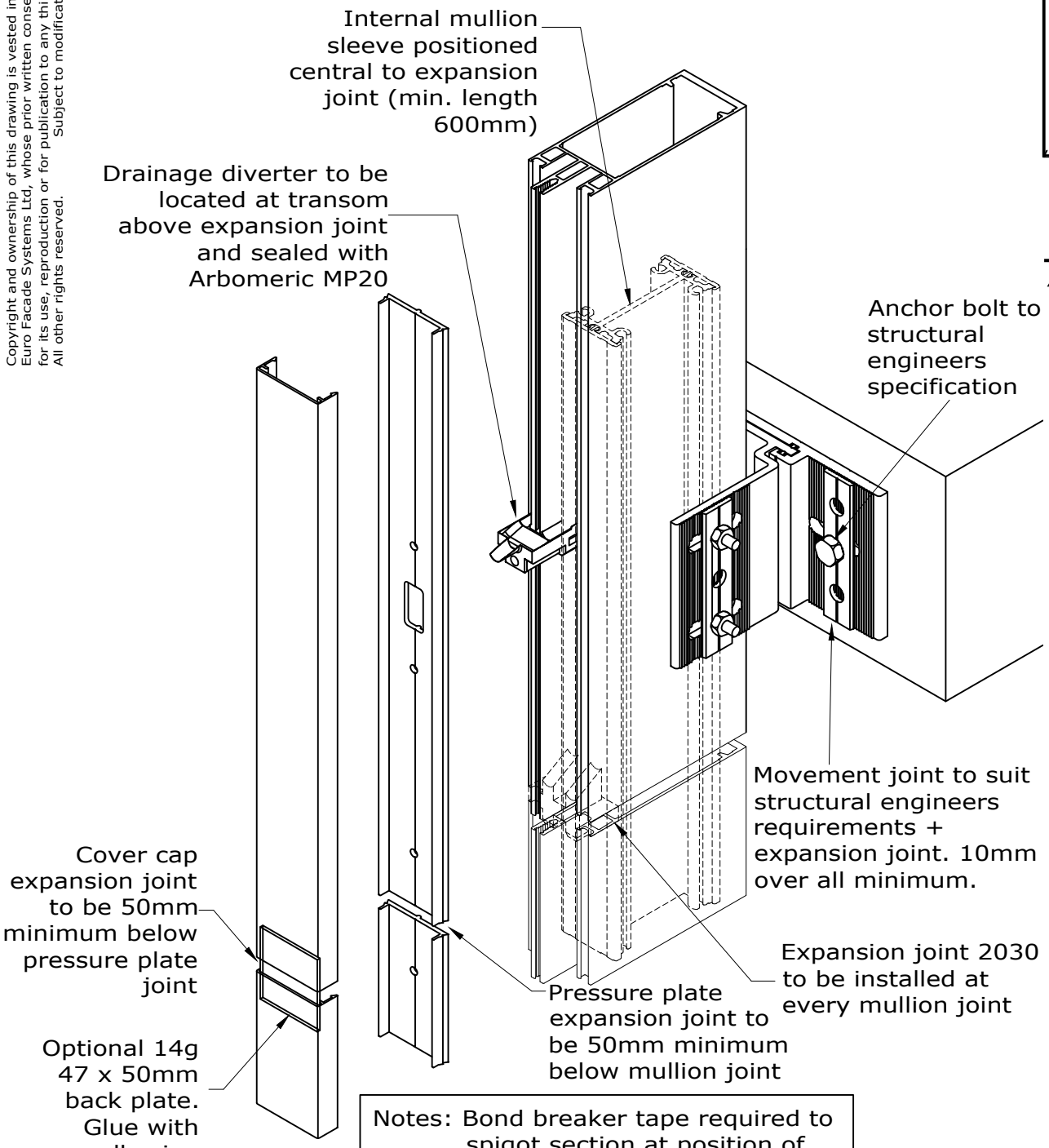

Notes: Bond breaker tape required to spigot section at position of mullion joint and to glass at pressure plate joint

Gaskets omitted for clarity

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Date: 10-16

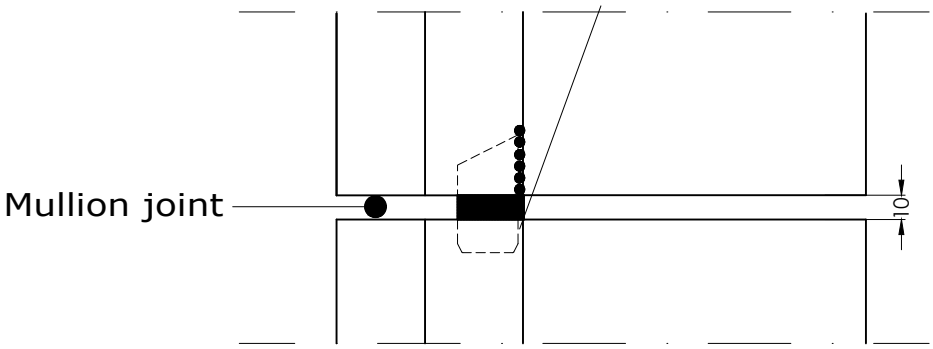
comar
ARCHITECTURAL ALUMINIUM SYSTEMS

Installation 7

Comar 6EFT

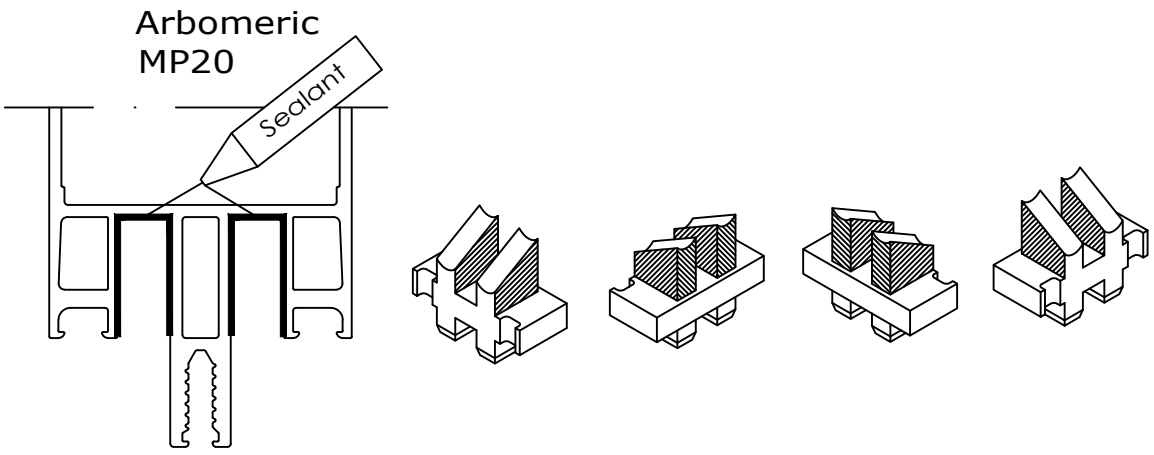
Mullion coupling 2030

7.10



Fabricators Guide

Sealant to be applied at drainage channel in the upper mullion to all shown edges so the mullion coupling is sealed on all sides.



comar
ARCHITECTURAL ALUMINIUM SYSTEMS

Changes reserved
Sous reserve de modifications
Änderungen vorbehalten

Issue: 05
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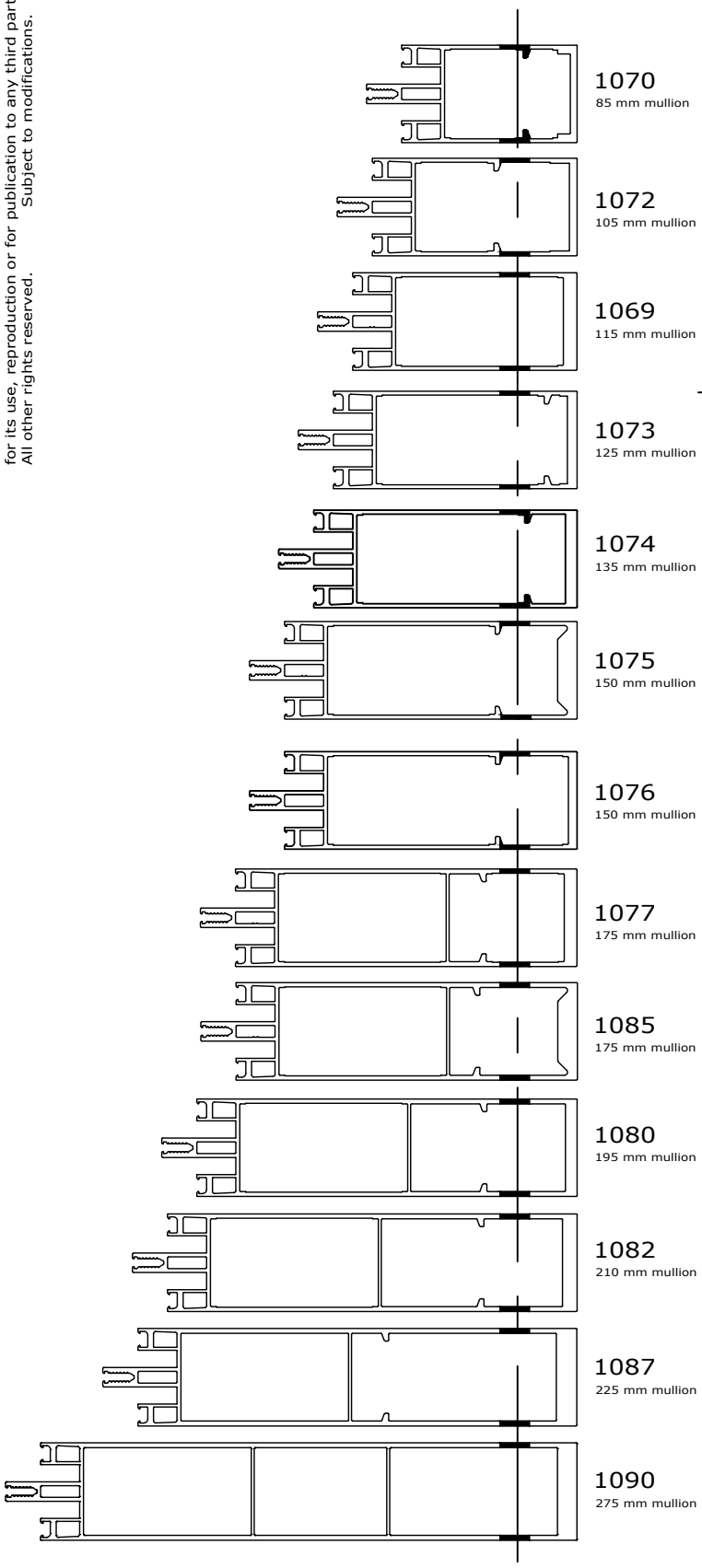
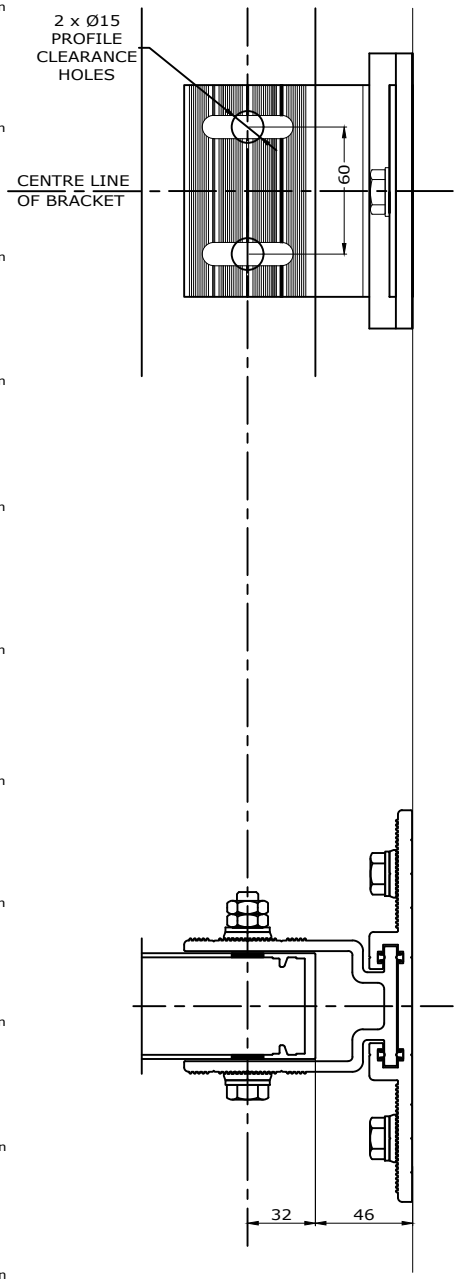
Fixing bracket hole preparation





7.11

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Fixing bracket instructions
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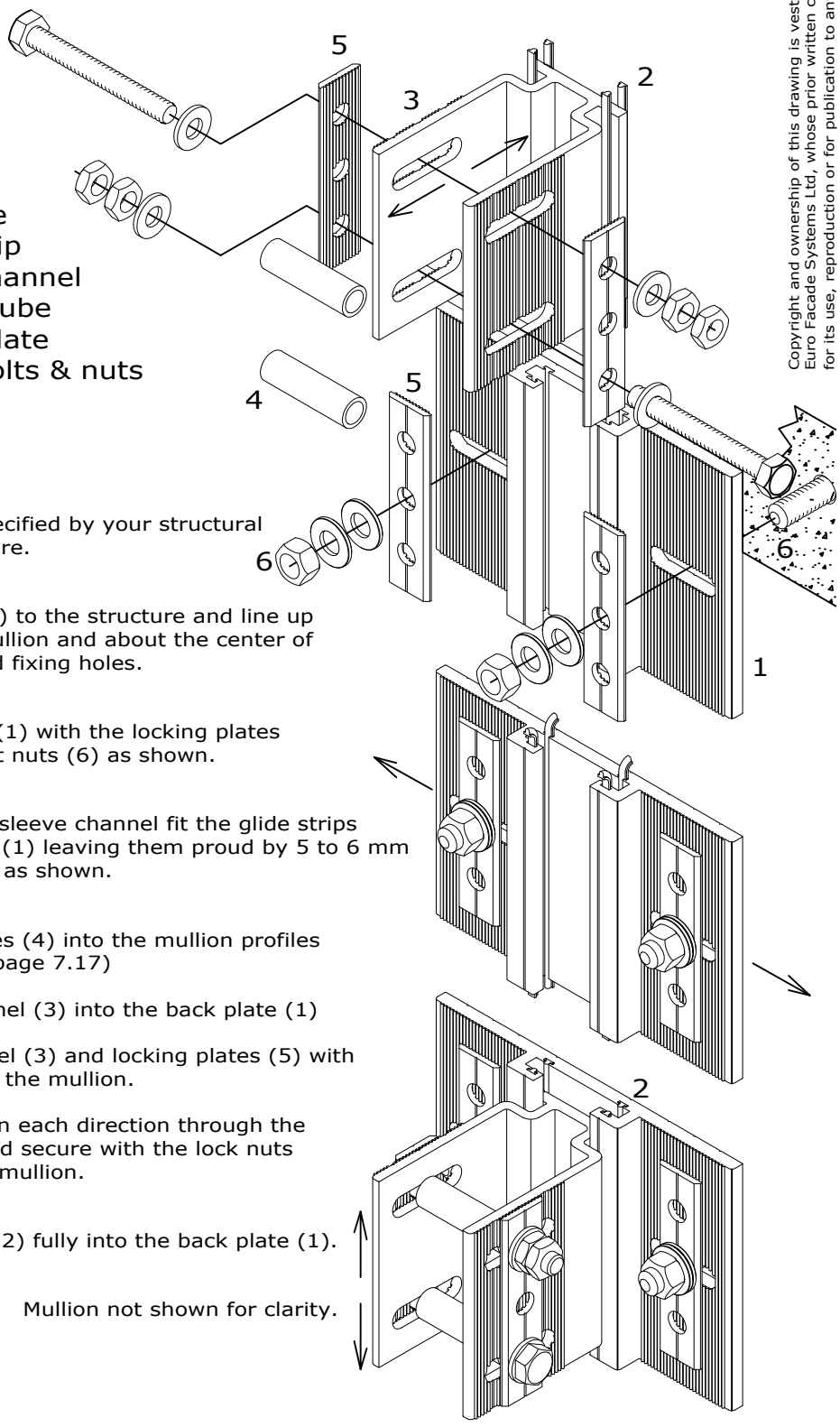
7.12

1 Back Plate
2 Guide Strip
3 Sleeve Channel
4 Bearing Tube
5 Locking Plate
6 Anchor bolts & nuts



Fit anchor bolts (6) specified by your structural engineer to the structure.

Offer the back plate (1) to the structure and line up to the center of the mullion and about the center of the mullions pre-drilled fixing holes.

Secure the back plate (1) with the locking plates (5) and the anchor bolt nuts (6) as shown.

To aid insertion of the sleeve channel fit the glide strips (2) into the back plate (1) leaving them proud by 5 to 6 mm and open out the ends as shown.

Insert the bearing tubes (4) into the mullion profiles pre-drilled holes (See page 7.17)

Insert the sleeve channel (3) into the back plate (1)

Align the sleeve channel (3) and locking plates (5) with the pre-drilled holes in the mullion.

Insert the fixings one in each direction through the mullion and bracket and secure with the lock nuts upon alignment of the mullion.

Insert the glide strips (2) fully into the back plate (1).

Mullion not shown for clarity.

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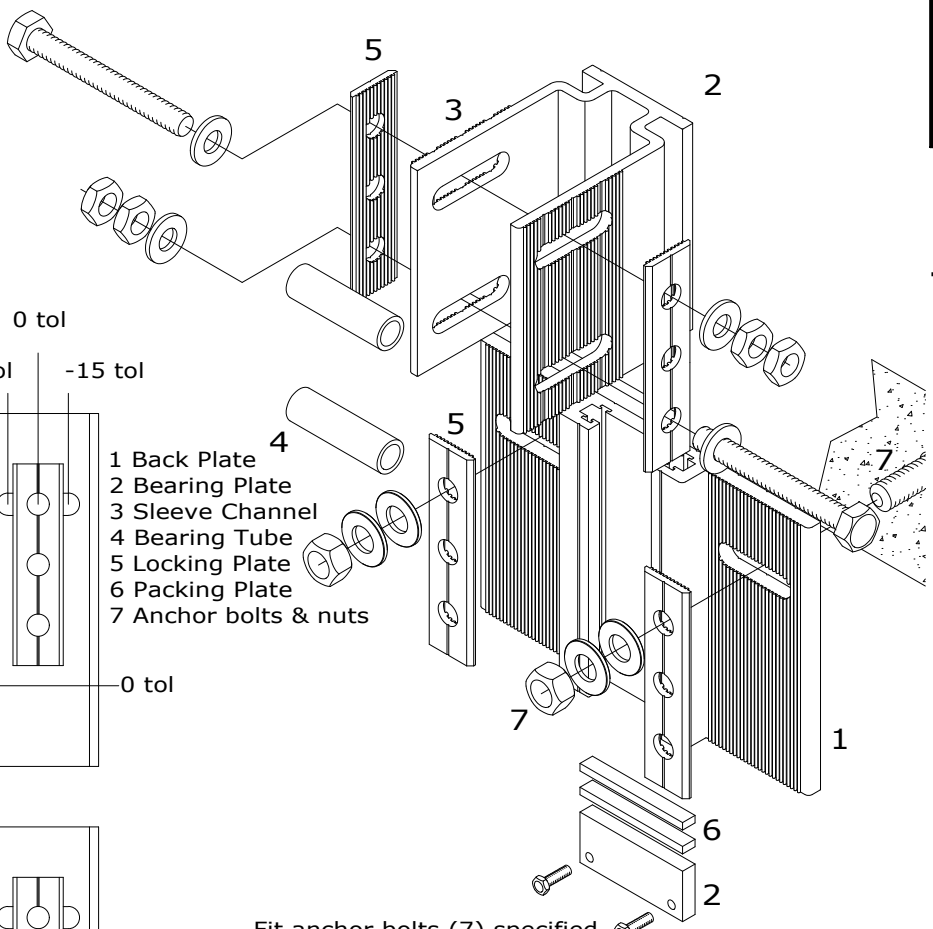
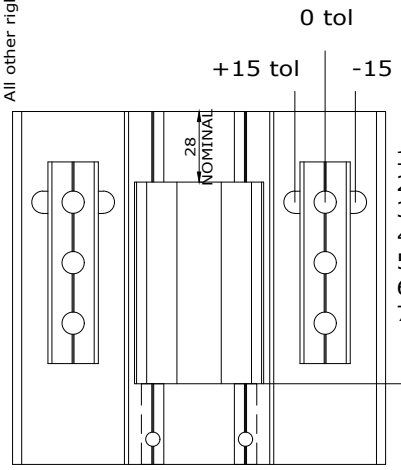
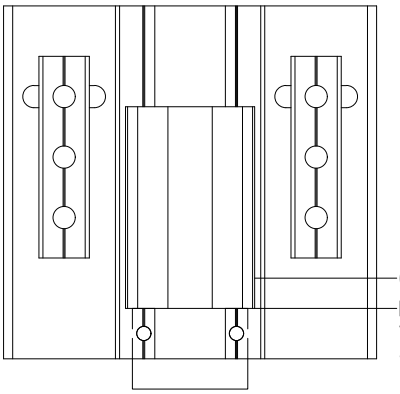
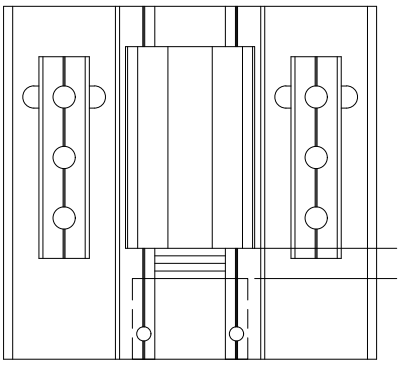
Fixing bracket instructions
Page 2





1 Back Plate
2 Bearing Plate
3 Sleeve Channel
4 Bearing Tube
5 Locking Plate
6 Packing Plate
7 Anchor bolts & nuts





Fit anchor bolts (7) specified by your structural engineer to the structure.

Offer the back plate (1) to the structure and line up to the center of the mullion and about the center of the mullions pre-drilled fixing holes.

Secure the back plate (1) with the locking plates (5) and the anchor bolt nuts (7) as shown.

Apply aluminium glue (SE007) to sleeve channel and insert into the back plate (1).

Insert the bearing tubes (4) into the mullion profiles pre-drilled holes (See page 7.17)

Align the sleeve channel (3) and locking plates (5) with the pre-drilled holes in the mullion.

Insert the fixings one in each direction through the mullion and bracket and secure with the lock nuts upon alignment of the mullion.

Plumb level the mullions, insert the packing (6) and bearing plate (2) and secure tightly using No2 M6 screws.

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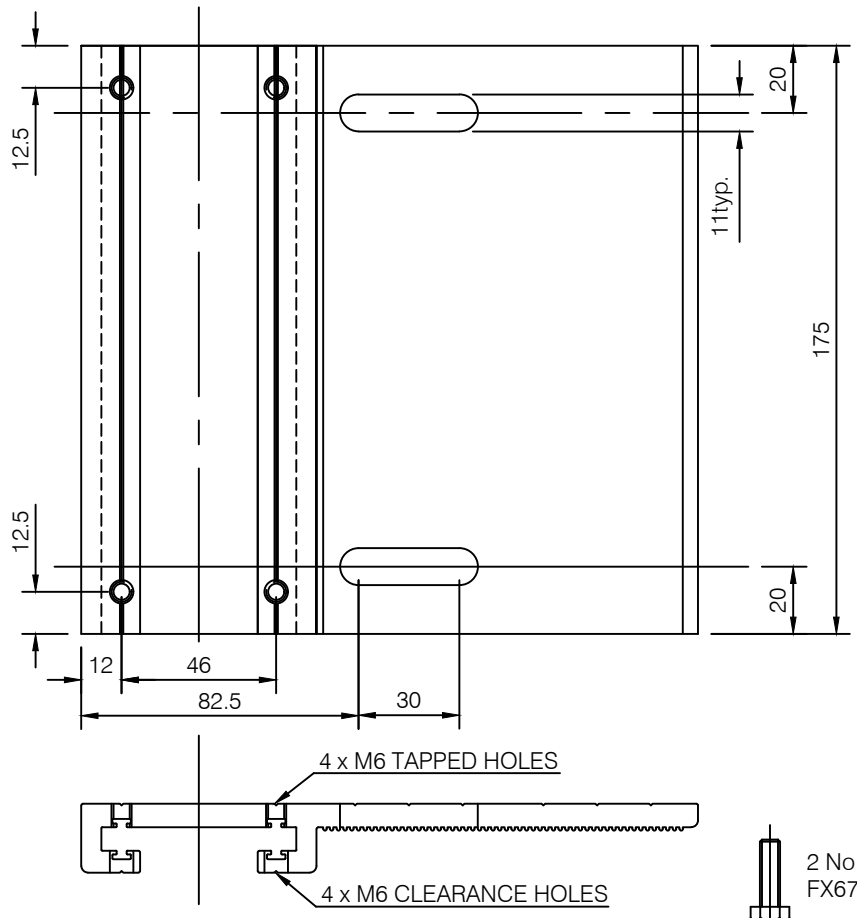
Comar 6EFT

Wall fixing bracket (jamb) CW671 Page 1

7.14



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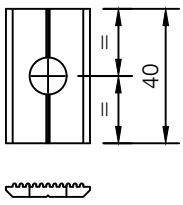

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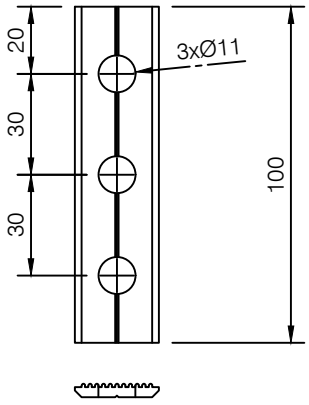

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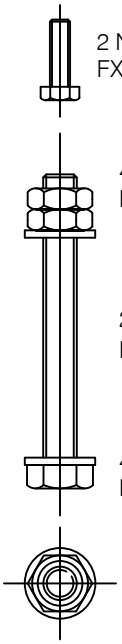

2 No. M6x20mm SCREWS
FX676XSLF

4 No. M10 Locking Nuts.
FX673XSLF

2 No. M10 x 90mm Hex Head Bolts.
FX672XSLF

4 No. M10 Nylon Washers.
FX674XSLF

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ARCHITECTURAL ALUMINIUM SYSTEMS

Changes reserved
Sous reserve de modifications
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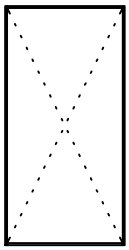
Wall fixing bracket instructions (jamb) CW671
Page 2



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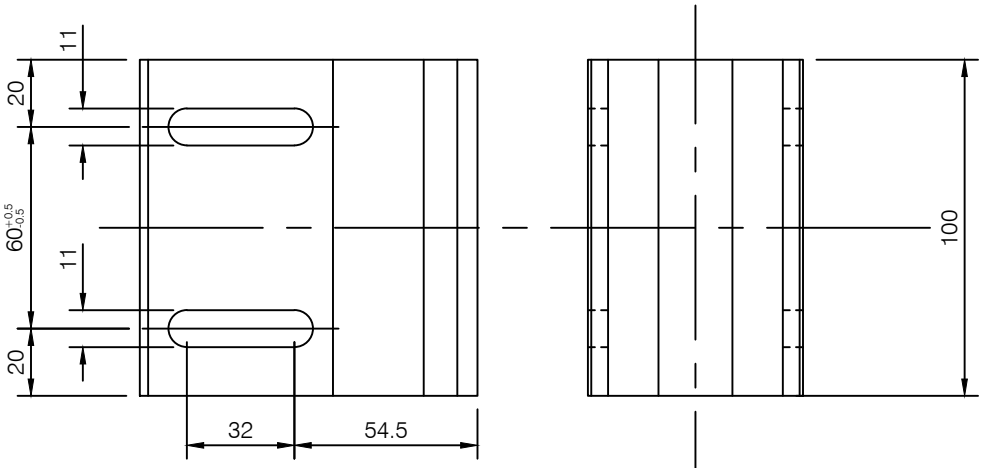

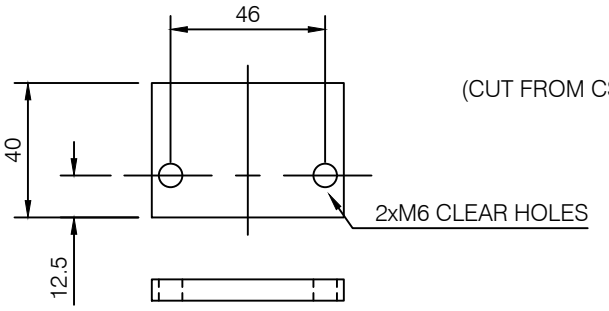

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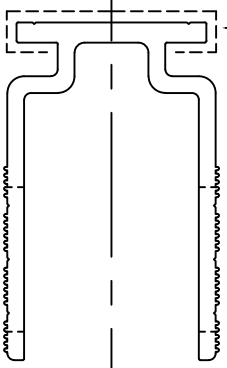
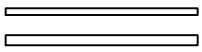


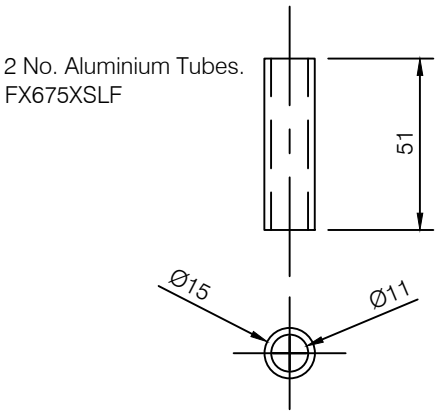
Aluminium glue to be applied before assembly (SE007)
Not supplied in kit.

1 No. 2 1/4" x 1/4" Aluminium Flat
CL006XSLF



2mm packer - CL012XSLF (pack of 10)
3mm packer - CL013XSLF (pack of 10)

Packers are purchased as separate items.



KIT COMPRISES

1 No. CS901 Component
1 No. CS902 Component
4 No. CS903 Components
1 No. Aluminium Flat. CL006XSLF
2 No. Aluminium Tubes. FX675XSLF
4 No. M10 Locking Nuts. FX673XSLF
2 No. M10 x 90mm Hex Head Bolts. FX672XSLF
4 No. M10 Nylon Washers. FX674XSLF
2 No. M6 x 20mm Screws.FX676XSLF

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Sous reserve de modifications
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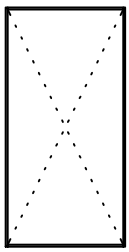

Wall fixing bracket (intermediate) CW672
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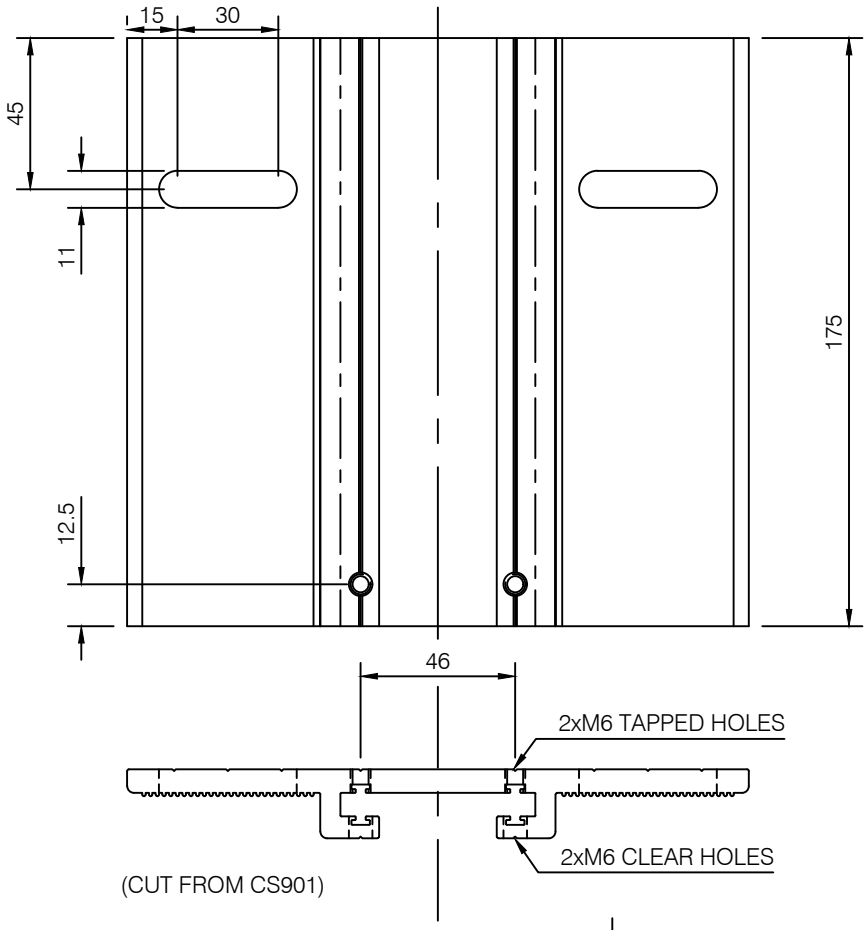

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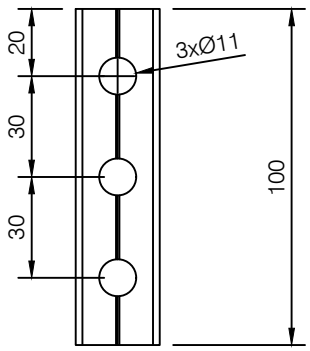

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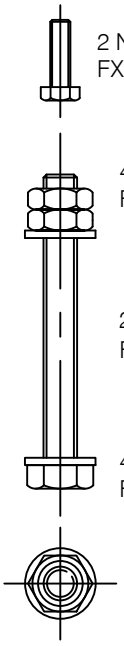

2 No. M6 x 20mm SCREWS
FX676XSLF

4 No. M10 Locking Nuts.
FX673XSLF

2 No. M10 x 90mm Hex Head Bolts.
FX672XSLF

4 No. M10 Nylon Washers.
FX674XSLF

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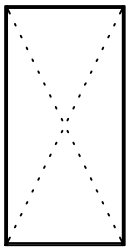

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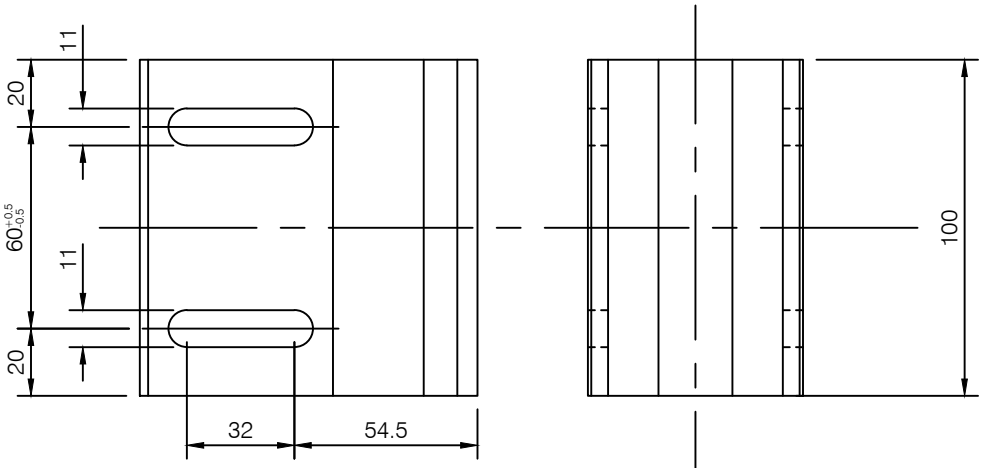

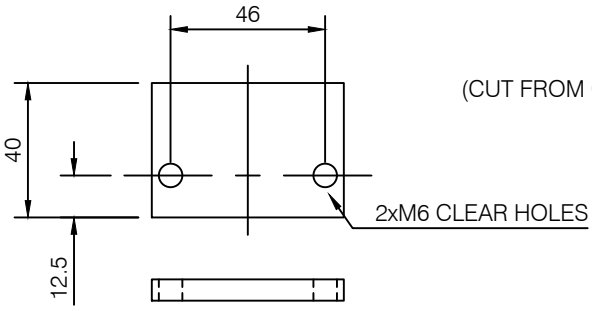

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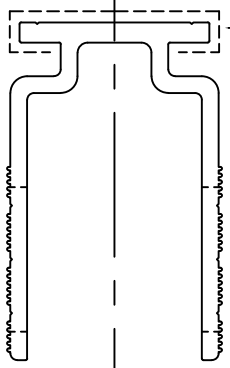
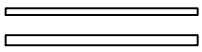


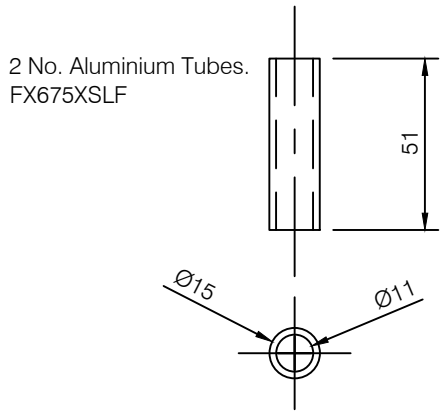
Aluminium glue to be applied before assembly (SE007)
Not supplied in kit.

1 No. 2 1/4" x 1/4" Aluminium Flat
CL006XSLF



2mm packer - CL012XSLF (pack of 10)
3mm packer - CL013XSLF (pack of 10)

Packers are purchased as separate items.



KIT COMPRISES

1 No. CS901 Component
1 No. CS902 Component
4 No. CS903 Components
1 No. Aluminium Flat. CL006XSLF
2 No. Aluminium Tubes. FX675XSLF
4 No. M10 Locking Nuts. FX673XSLF
2 No. M10 x 90mm Hex Head Bolts. FX672XSLF
4 No. M10 Nylon Washers. FX674XSLF
2 No. M6 x 20mm Screws.FX676XSLF

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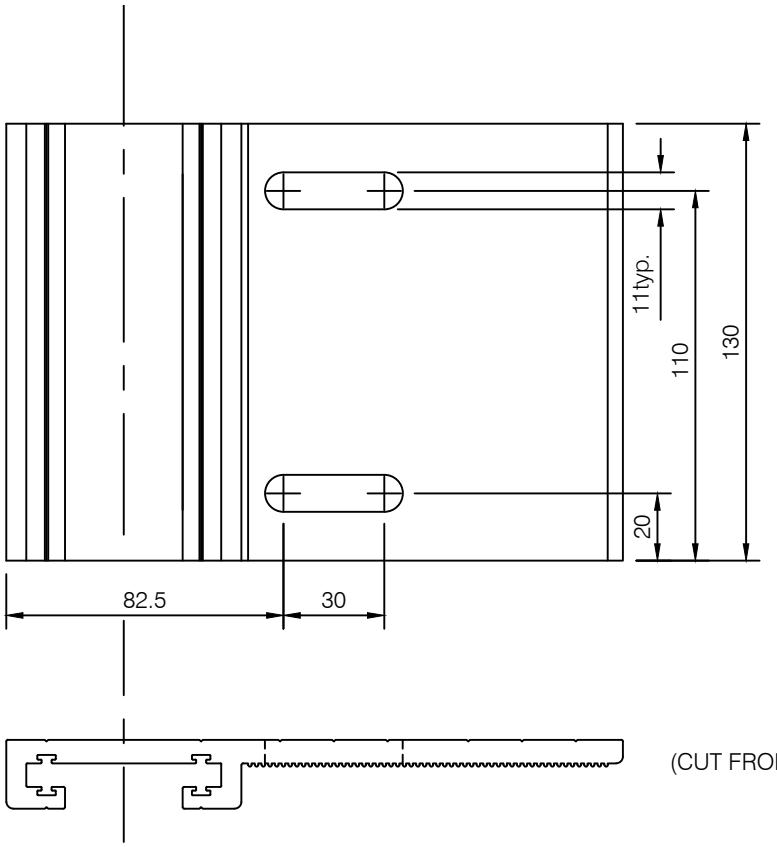

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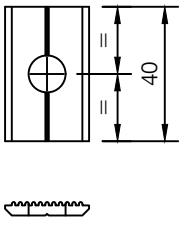

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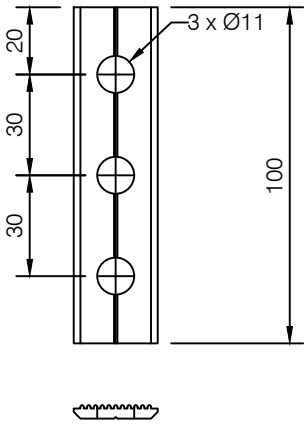

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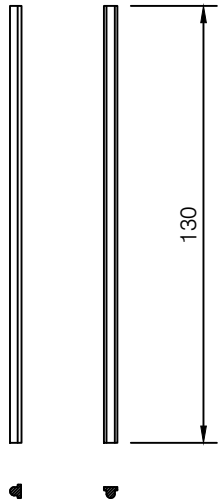

4 No. Req'd cut from GK055.
These items are not supplied in the kit.

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Wall fixing bracket (jamb) CW673
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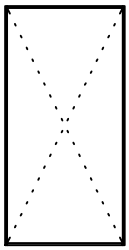

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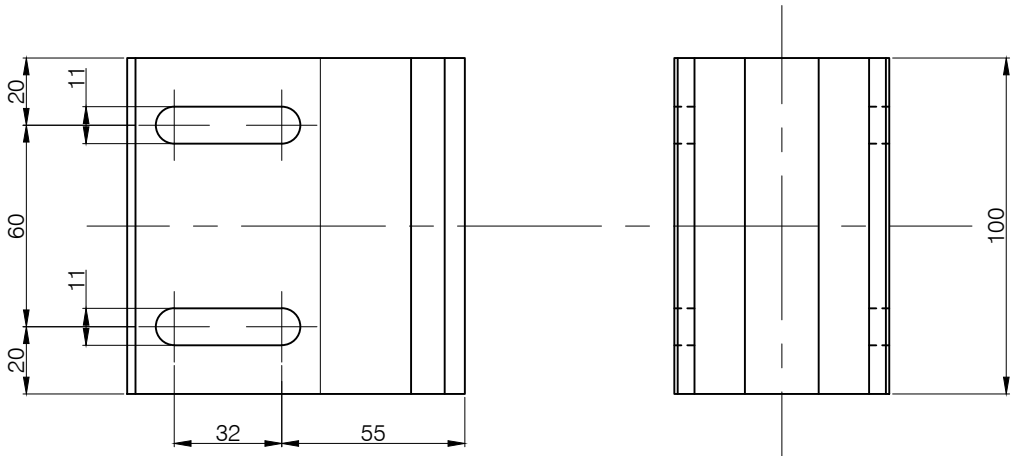

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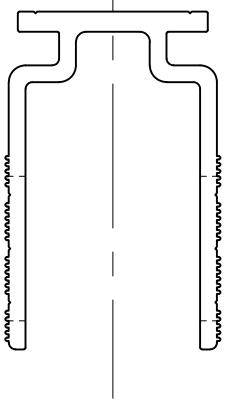
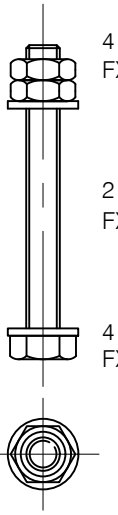
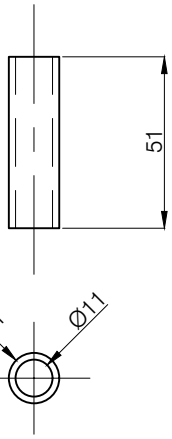




4 No. M10 Locking Nuts.
FX673XSLF

2 No. M10 x 90mm Hex Head Bolts.
FX672XSLF

4 No. M10 Nylon Washers.
FX674XSLF



2 No. Aluminium Tubes.
FX675XSLF

KIT COMPRISES

1 No. CS901 Component
1 No. CS902 Component
4 No. CS903 Components
2 No. Aluminium Tubes. FX675XSLF
4 No. M10 Locking Nuts. FX673XSLF
2 No. M10 x 90mm Hex Head Bolts. FX672XSLF
4 No. M10 Nylon Washers. FX674XSLF

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Wall sliding bracket (intermediate) CW674
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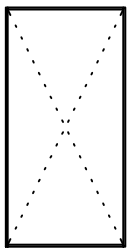

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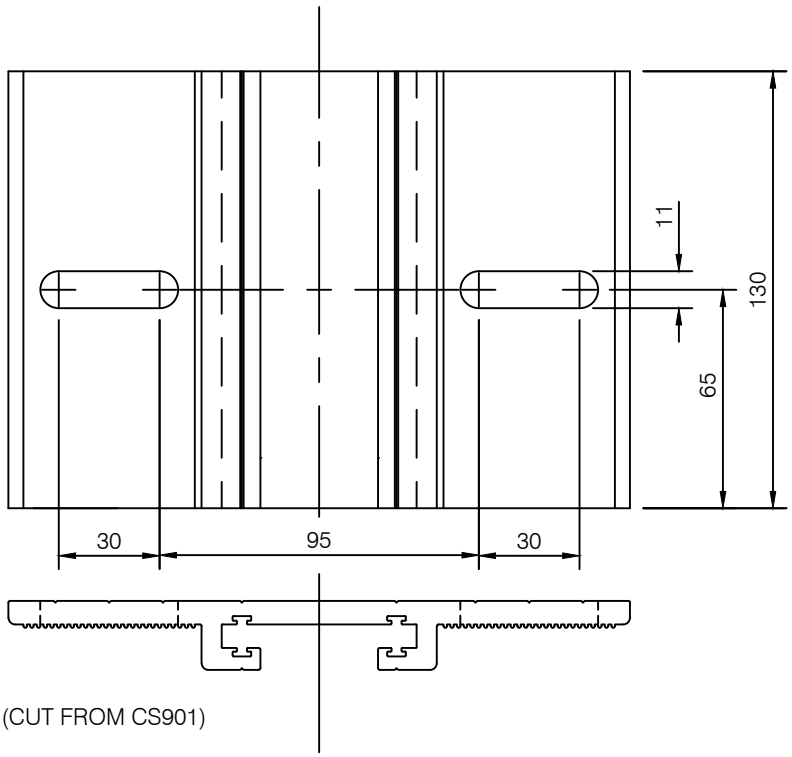

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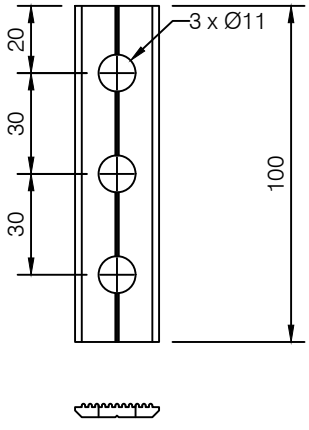

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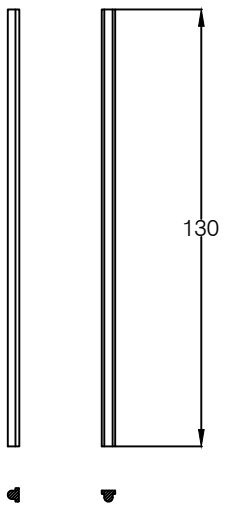

4 No. Req'd cut from GK055.
These items are not supplied in the kit.

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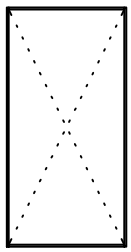
Wall fixing bracket (intermediate) CW674 Page 2



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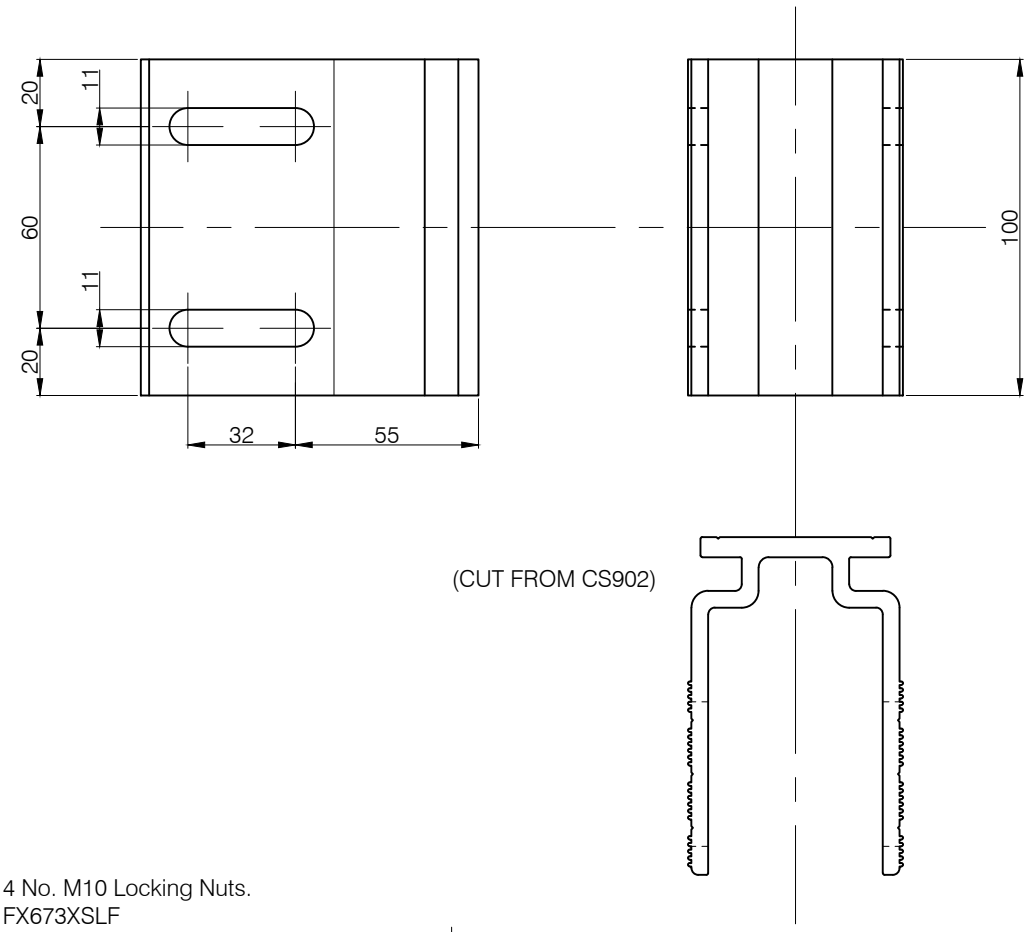
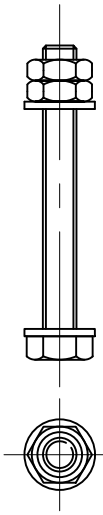
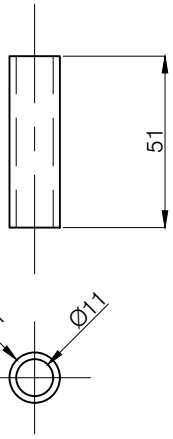




4 No. M10 Locking Nuts.
FX673XSLF

2 No. M10 x 90mm Hex Head Bolts.
FX672XSLF

4 No. M10 Nylon Washers.
FX674XSLF



2 No. Aluminium Tubes.
FX675XSLF

KIT COMPRISES

1 No. CS901 Component
1 No. CS902 Component
4 No. CS903 Components
2 No. Aluminium Tubes. FX675XSLF
4 No. M10 Locking Nuts. FX673XSLF
2 No. M10 x 90mm Hex Head Bolts. FX672XSLF
4 No. M10 Nylon Washers. FX674XSLF

Fabricators Guide

Changes reserved
Sous reserve de modifications
Änderungen vorbehalten

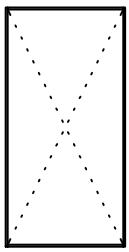
Issue: 05
Date: 10-16

comar
ARCHITECTURAL ALUMINIUM SYSTEMS

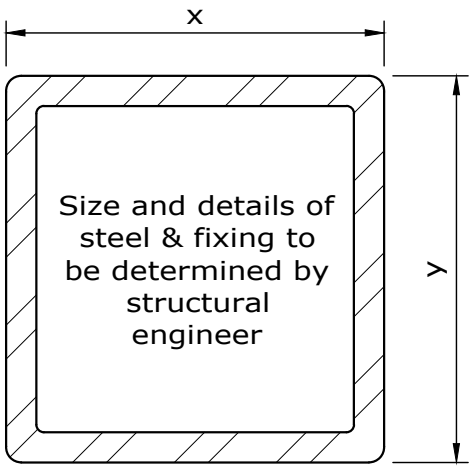
Profile Sections 7

Comar 6EFT

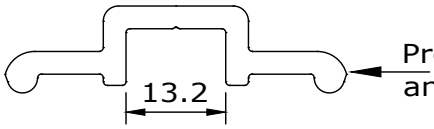
Direct fix to steel fixing lug preparation



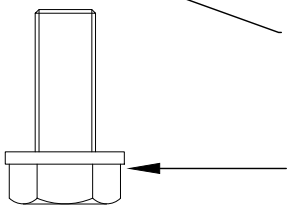
7.22



Aluminium to steel isolator (supplied by others)

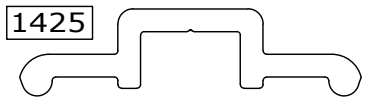


Profile 1425 (fixing lug) to be cut and drilled as shown below

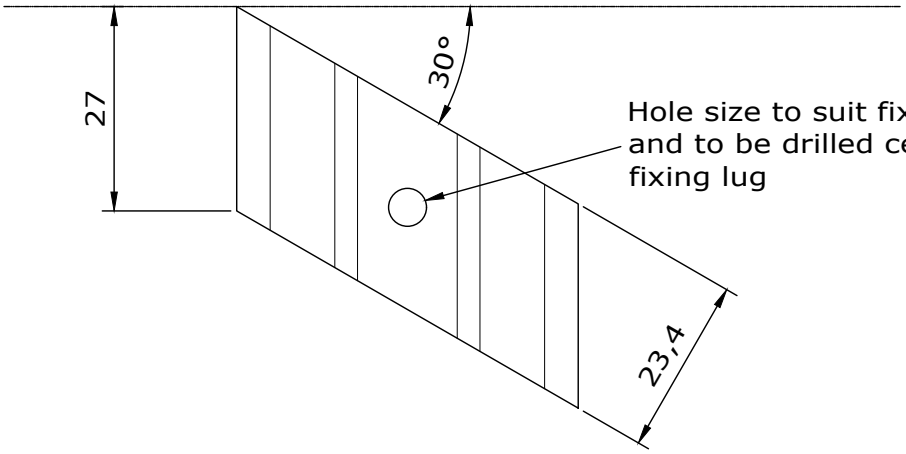


1mm spring washer (supplied by others)

Fixing bolt (supplied by others) to structural engineers specification



Profile 1425 to be cut and drilled to create fixing lugs as shown



Hole size to suit fixing bolt size and to be drilled centrally on cut fixing lug

Fabricators Guide

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ARCHITECTURAL ALUMINIUM SYSTEMS

Changes reserved
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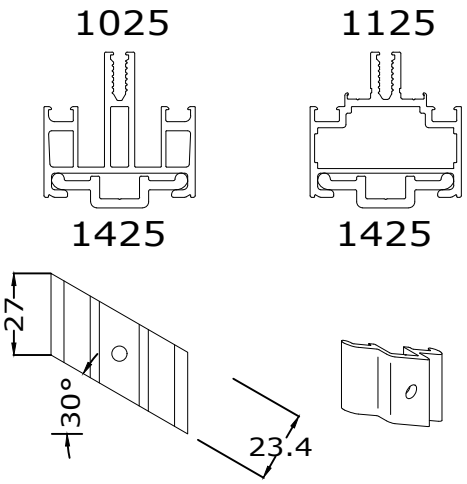
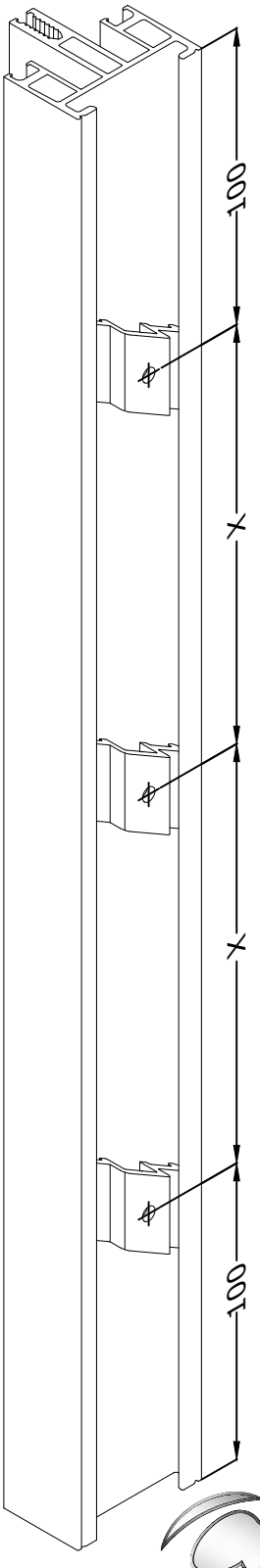
Direct fix to steel
Fixing lug spacing





Centre of fixing lug to be positioned 100mm from the end of each mullion and transom.

Fixing lug spacing then depends on height of curtain walling.

Areas of curtain walling	
≤15m in height	>15m in height
Fixing lugs at 600mm centres max.	Fixing lugs at 400mm centres max.

7.23

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Changes reserved
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Änderungen vorbehalten

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ARCHITECTURAL ALUMINIUM SYSTEMS

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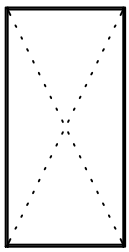
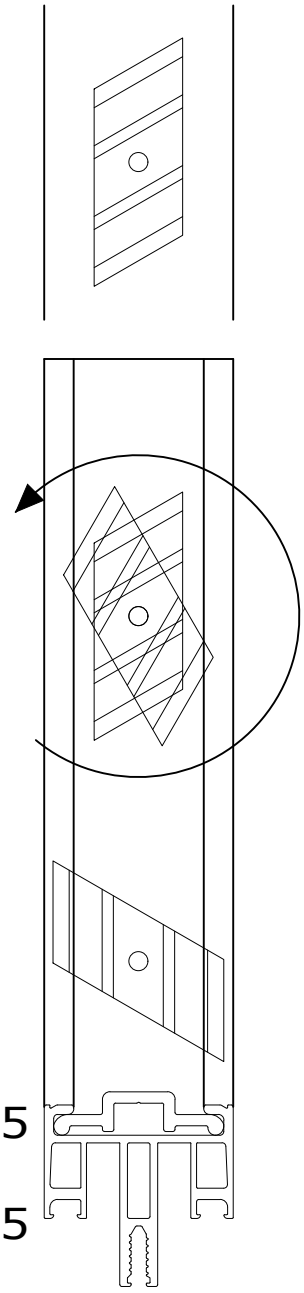
Direct fix to steel
Fixing lugs



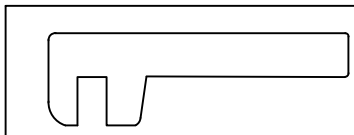
7.24



1. Aluminium to steel seperator, fixing lug and 1mm spring washer to be fixed to steel using suitable fixing as approved by structural engineer at spacing as stated on page 7.28.

2. Mullion/transom profile to be placed over toggles.

3. Toggle to be twisted through 90°



Example of Lug Tool
(not supplied by COMAR)
This tool to be made to suit by Fabricator

4. Toggle in final position

Fabricators Guide

comar
ARCHITECTURAL ALUMINIUM SYSTEMS

Issue: 05
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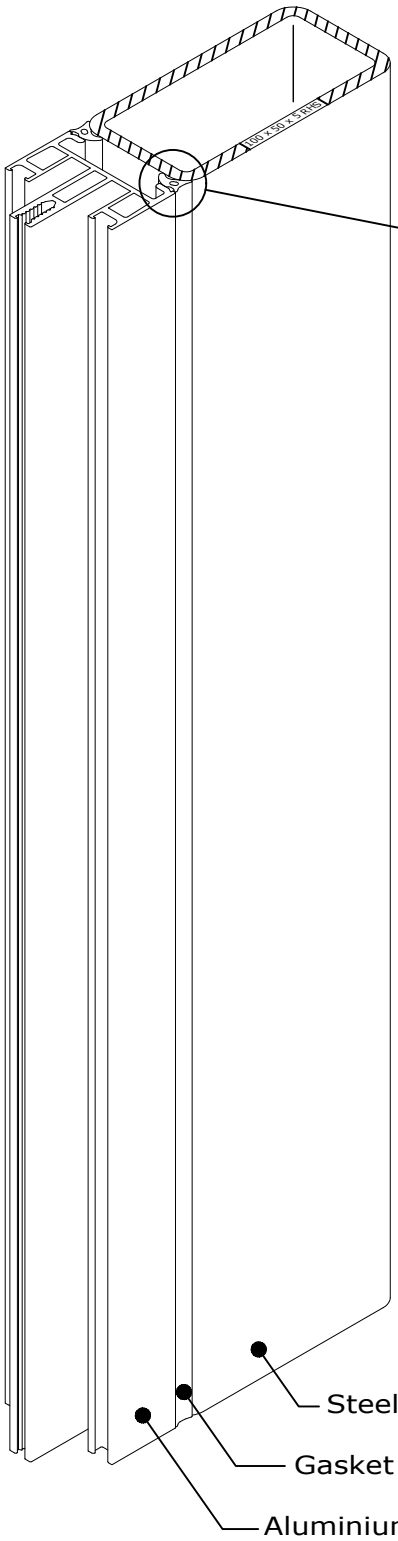
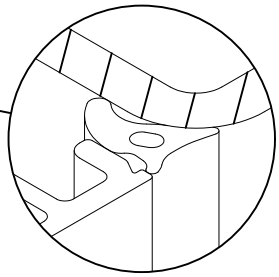
Direct fix to steel
Internal sealing



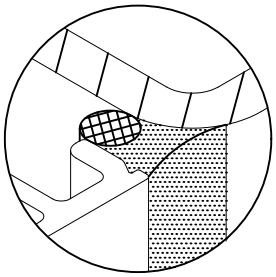
The internal seal between the aluminium profile and the steel can be a gasket or silicone sealant.

Gasket seal



or

Silicone seal



7.25

Gasket seal

Aluminium to steel isolator thickness will affect which gasket should be used.

Isolator thickness	Gasket to use	Wedge size
1mm	GK405	4mm
2mm	GK407	5mm
3mm	GK408	6mm

Gasket joints to be bonded using EPDM bonding compound.

Silicone seal

Fit the backing rods as shown. (supplied by others)
Apply the silicone sealant as shown.

Fabricators Guide

Changes reserved
Sous reserve de modifications
Änderungen vorbehalten

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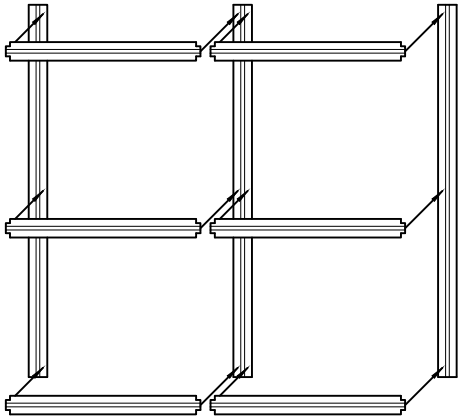
comar
ARCHITECTURAL ALUMINIUM SYSTEMS

Installation methods

7.26

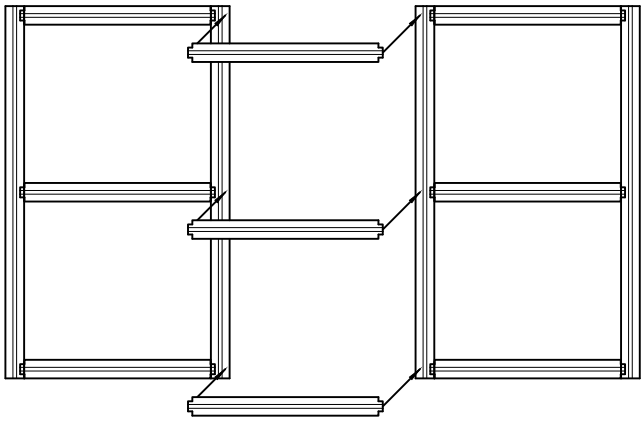
Installation Method: 1

Mullions followed by transoms.



Installation Method: 2

Elements (ladders) followed by intermediate transoms.



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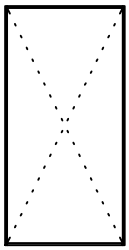
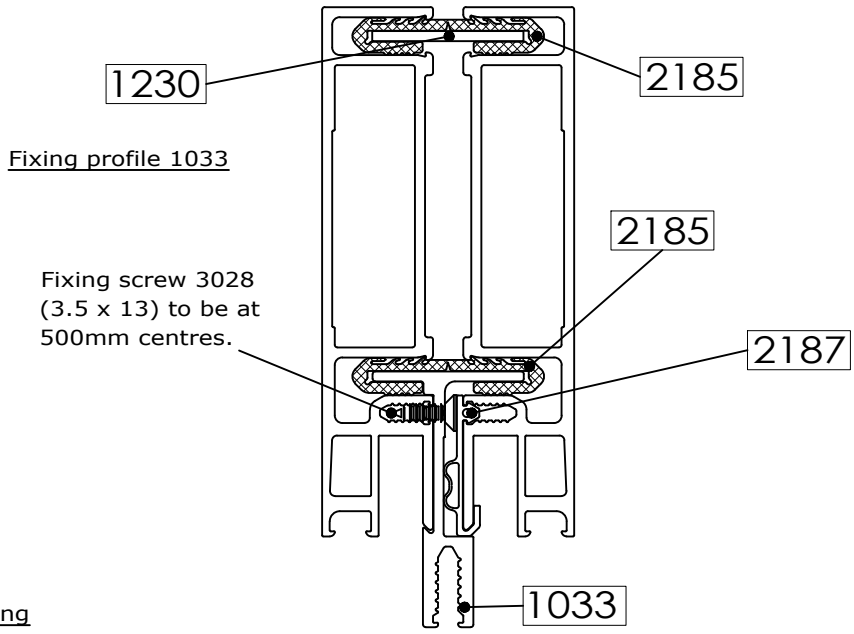
ARCHITECTURAL ALUMINIUM SYSTEMS

Split mullion details





7.27

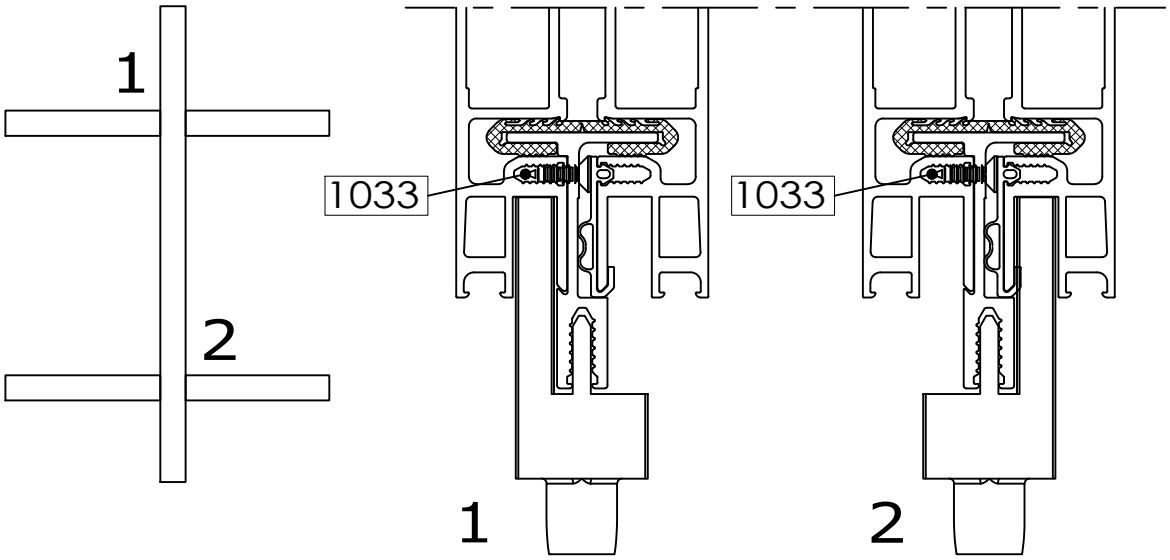
Mullion-transom fixing

For split mullions, either spring loaded cleats (2310) or precut transom cleats can be used to fix to the mullions.

Note: With spring loaded cleat 2310, the 45mm transom cannot be used with a split mullion.

Drainage diverter installation (for split mullions only)

Where a drainage diverter should be installed according to page 7.37, opposite sides of the drainage diverter must be cut away and positioned at 2 different transom levels.



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ARCHITECTURAL ALUMINIUM SYSTEMS

Installation 7

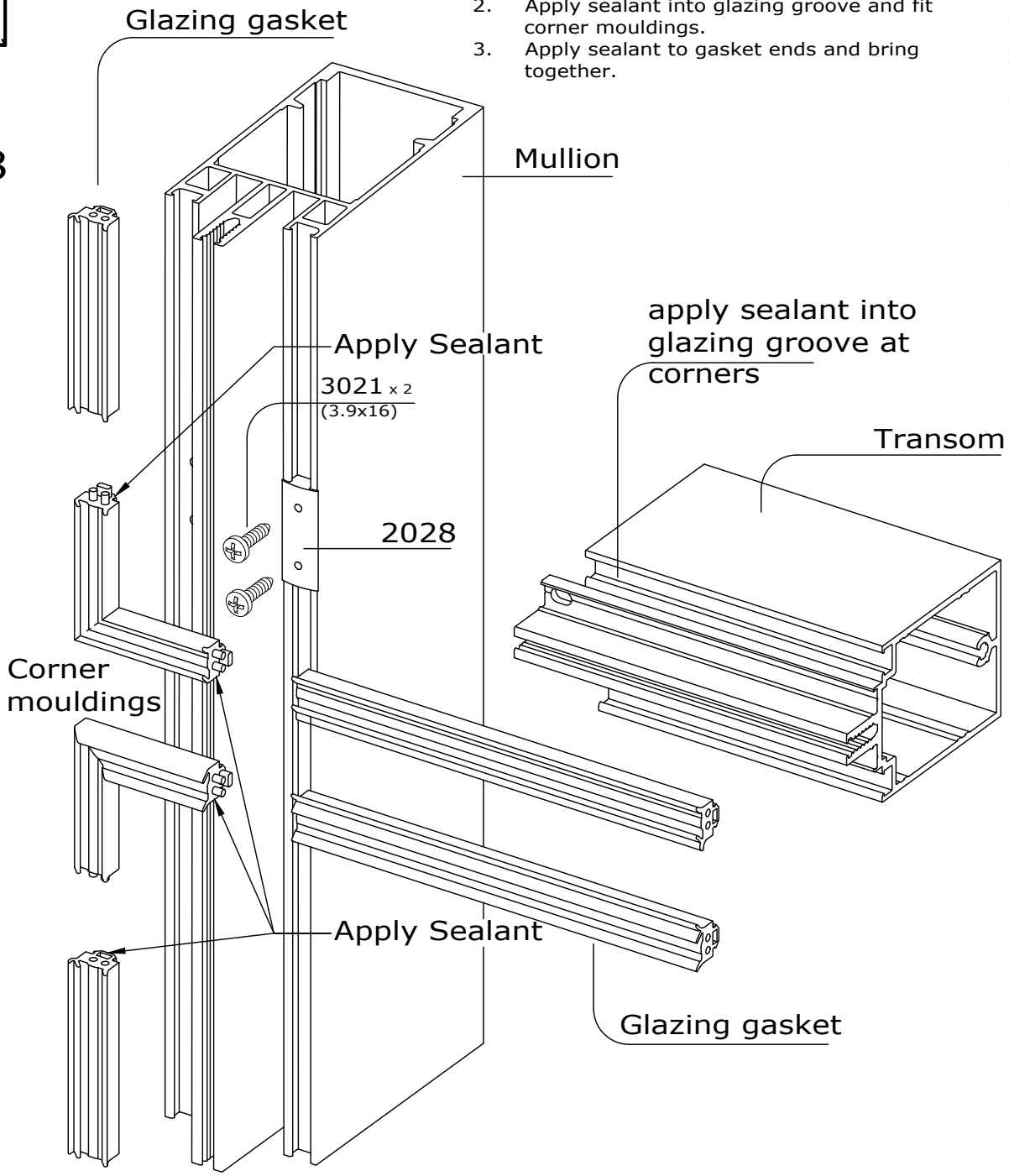
Comar 6EFT

Mullion - Transom connection (Option 1)

Notes:

1. Apply sealant to transom fixing screws and gasket groove below transom seal.
2. Apply sealant into glazing groove and fit corner mouldings.
3. Apply sealant to gasket ends and bring together.

7.28



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ARCHITECTURAL ALUMINIUM SYSTEMS

Changes reserved
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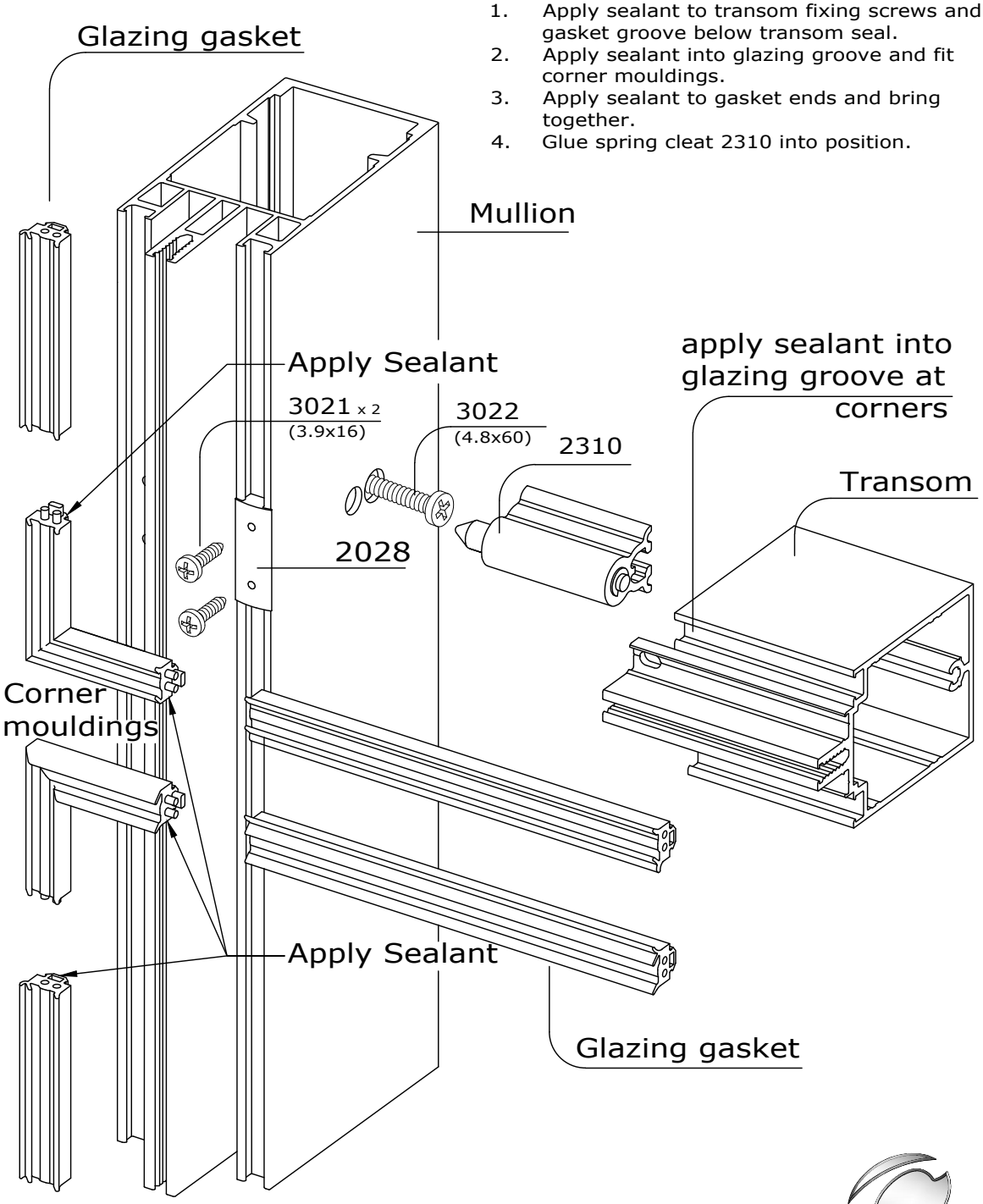
Mullion - Transom connection (Option 2)

(with spring loaded transom cleat)

Notes:

1. Apply sealant to transom fixing screws and gasket groove below transom seal.
2. Apply sealant into glazing groove and fit corner mouldings.
3. Apply sealant to gasket ends and bring together.
4. Glue spring cleat 2310 into position.

7.29



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ARCHITECTURAL ALUMINIUM SYSTEMS

Installation 7

Comar 6EFT

Mullion - Transom connection (Option 3)

(for making ladder units)

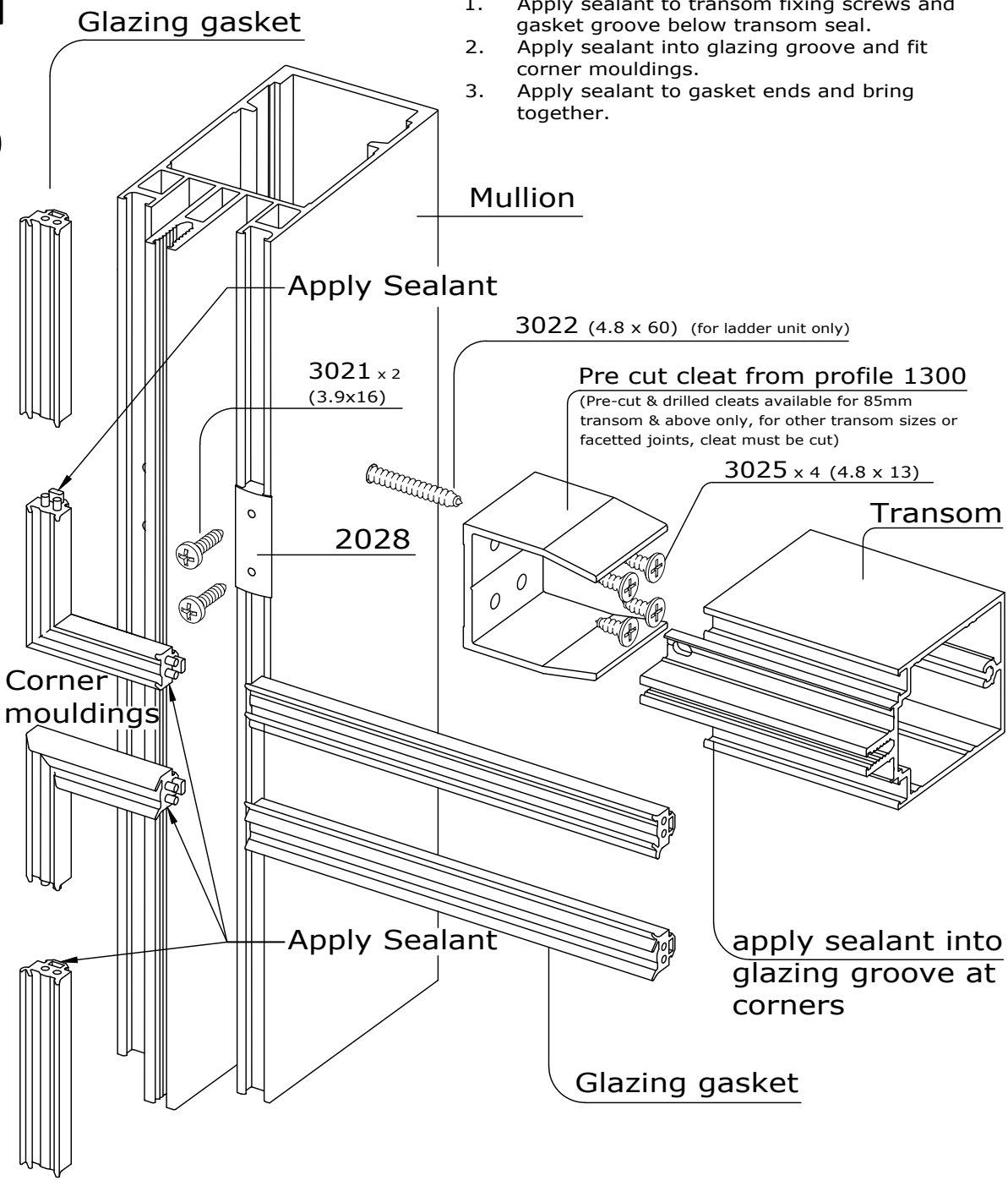
(for transoms installed between mullions or ladders)

Notes:

1. Apply sealant to transom fixing screws and gasket groove below transom seal.
2. Apply sealant into glazing groove and fit corner mouldings.
3. Apply sealant to gasket ends and bring together.

7.30

Fabricators Guide



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ARCHITECTURAL ALUMINIUM SYSTEMS

Changes reserved
Sous reserve de modifications
Änderungen vorbehalten

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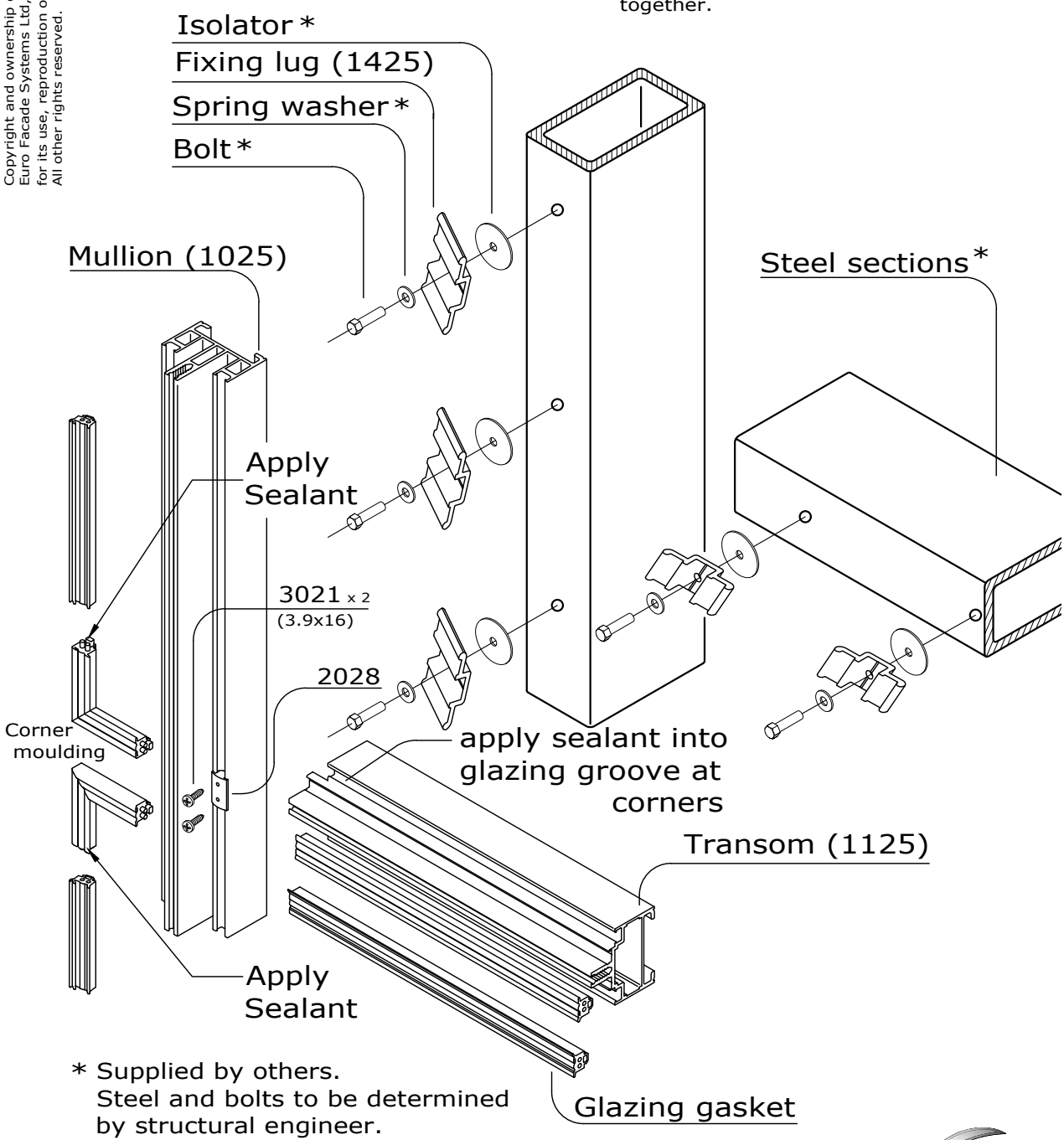
Mullion - Transom Connection (Option 4)

(Direct fix to steel or timber)

Notes:

1. Apply sealant to transom fixing screws and gasket groove below transom seal.
2. Apply sealant into glazing groove and fit corner mouldings.
3. Apply sealant to gasket ends and bring together.

7.31



* Supplied by others.
Steel and bolts to be determined by structural engineer.

Fabricators Guide

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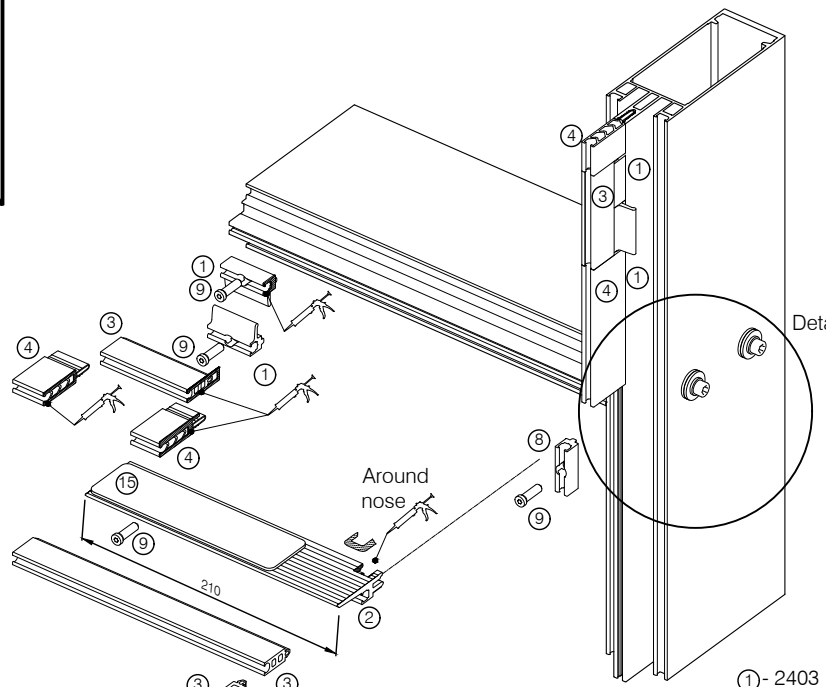
ARCHITECTURAL ALUMINIUM SYSTEMS

Installation 7

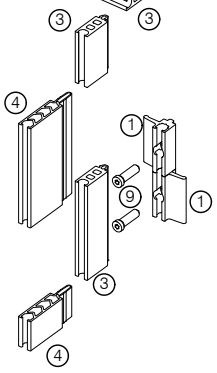
Comar 6EFT

Heavy glass support Connection (Option 5)

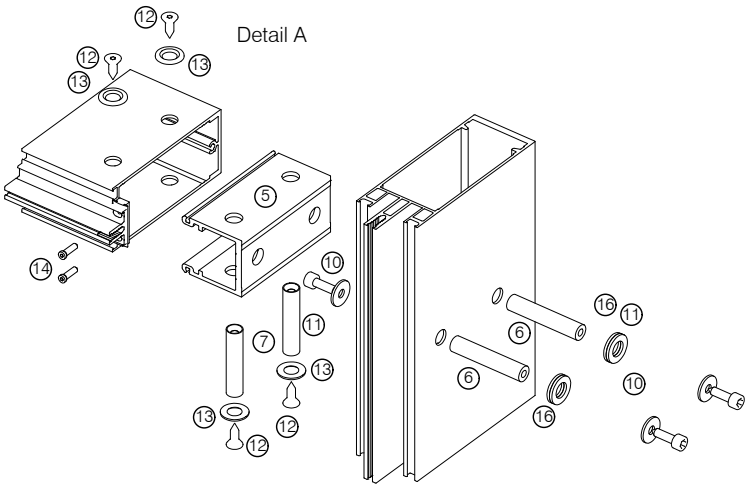
7.32



APPLY SEALANT TO ALL JOINTS



1. 2403 12mm double glazing clamp
2. 140x series 12mm glass setting block
3. 2155 22mm extension gasket
4. 2203 34mm thermal break
5. 1305 transom cleat
6. 1891 11x3 59.5mm aluminium tube
7. 1890 11x3 50mm aluminium tube
8. 2409 setting block support
9. 3029 5.5x23mm special screw
10. 3004 5.5x19mm socked screw
11. 3095 M6 DIN9021SS washer
12. 3017 5.5x16 countersink screw
13. 3094 SS countersink washer
14. 3021 3.9x16 special screw
15. 150mm wide glass shims
16. 3042 M12 SS washer



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ARCHITECTURAL ALUMINIUM SYSTEMS

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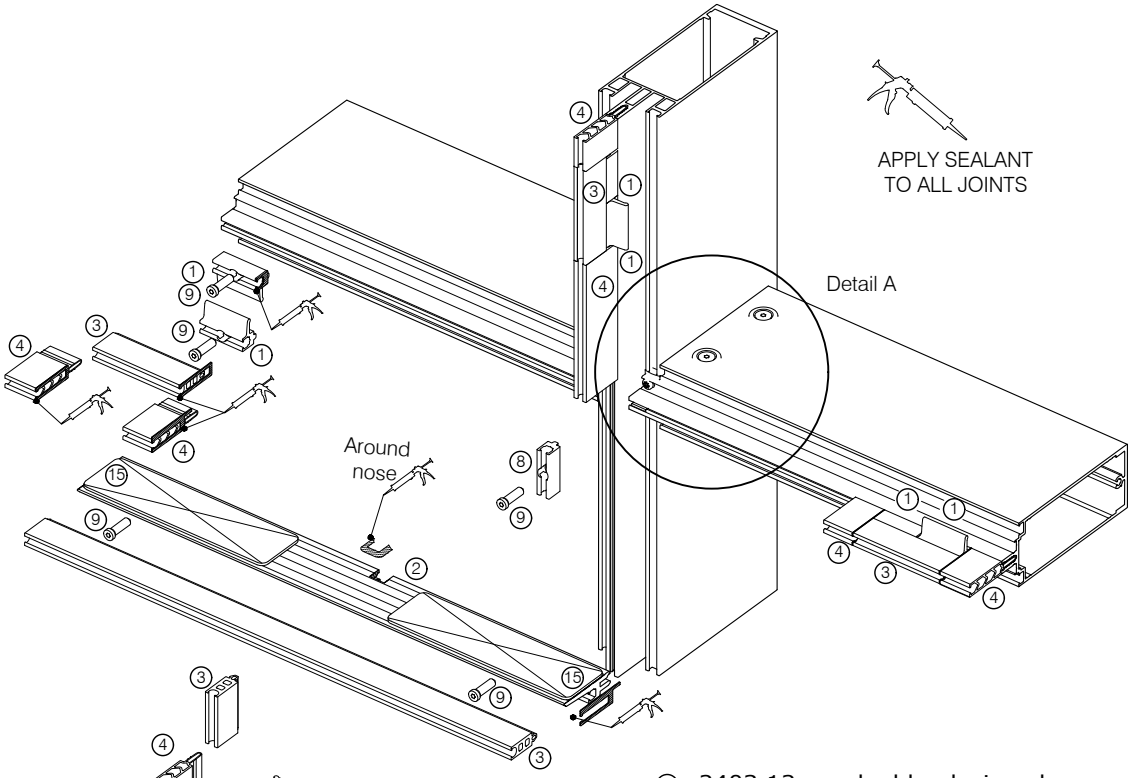
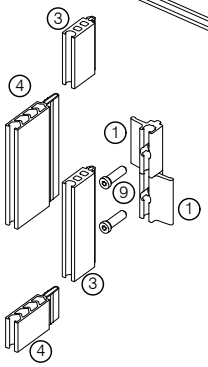
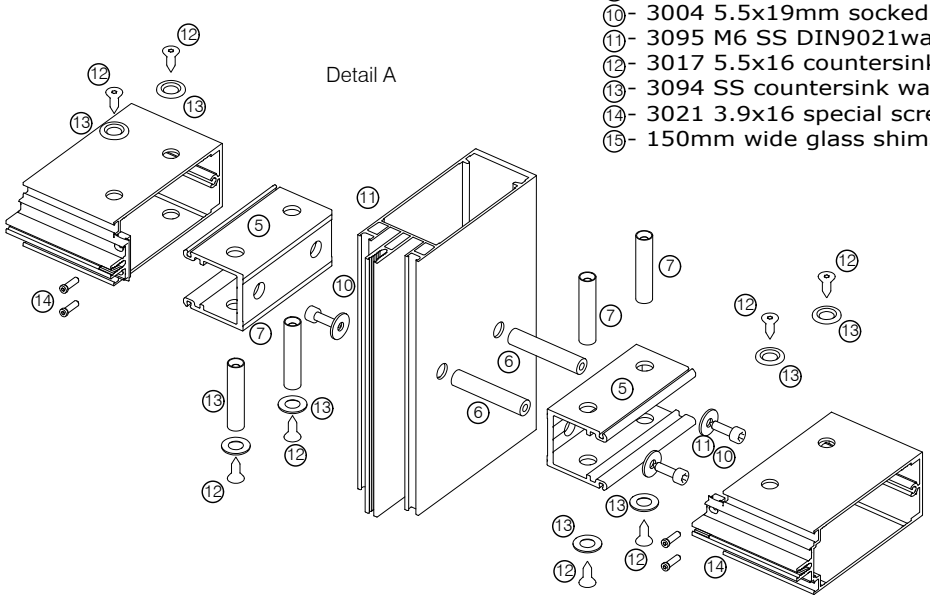
Heavy glass support Connection (Option 5)







①- 2403 12mm double glazing clamp
②- 140x series 12mm x 400mm glass setting block
③- 2155 22mm extension gasket
④- 2203 34mm thermal break
⑤- 1305 transom cleat
⑥- 1891 11x3 59.5mm aluminium tube
⑦- 1890 11x3 50mm aluminium tube
⑧- 2409 setting block support
⑨- 3029 5.5x23mm special screw
⑩- 3004 5.5x19mm socked screw
⑪- 3095 M6 SS DIN9021washer
⑫- 3017 5.5x16 countersink screw
⑬- 3094 SS countersink washer
⑭- 3021 3.9x16 special screw
⑮- 150mm wide glass shims

7.33

Fabricators Guide

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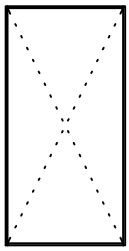
ARCHITECTURAL ALUMINIUM SYSTEMS

Installation 7

Comar 6EFT

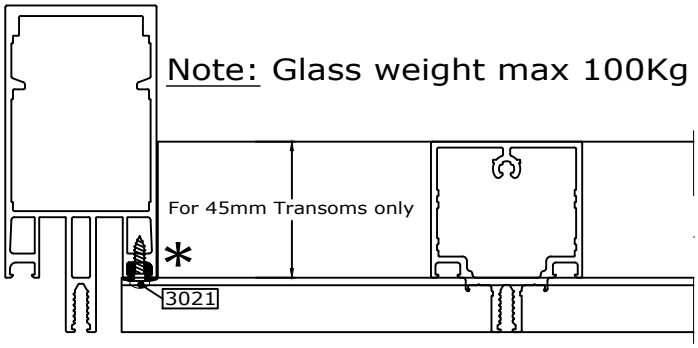
Mullion-transom Connection options



7.34

Option 1

Screws EFT-3021

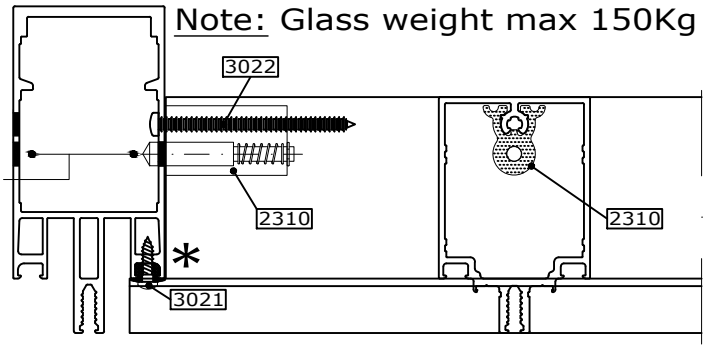


Ladders / units

Option 2

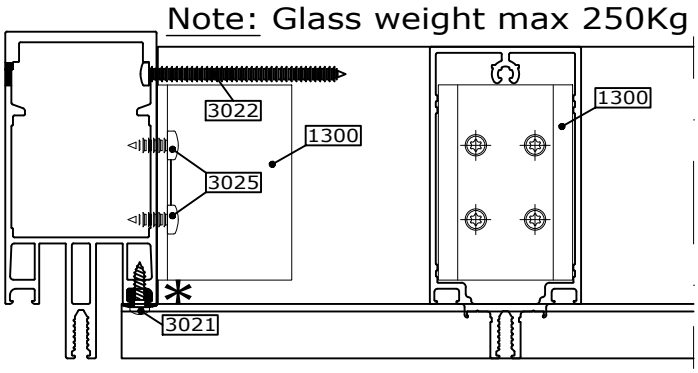
Spring loaded cleat
EFT-2310
or
Screw EFT-3022

Tooling: Com6-EFT-Jig1



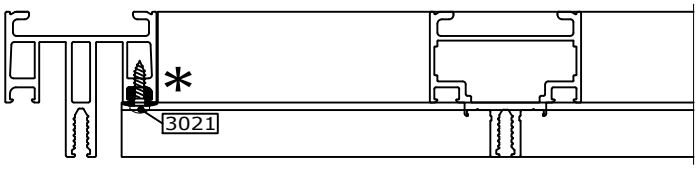
Option 3 or 3a

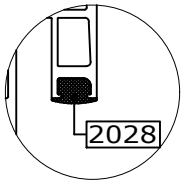
Precut & drill cleat
profile EFT-1300 to length



Option 4

For direct fix to steel details
refer to drawings



* 

Transom seal EFT-2028 to be installed at each mullion-transom connection.

All screws to be sealed.

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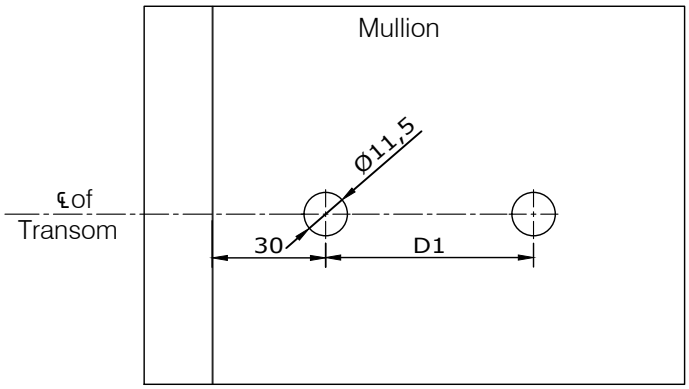
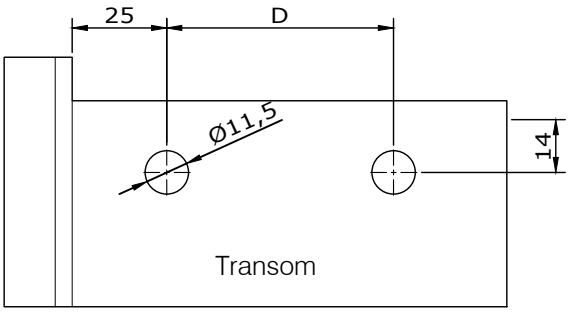
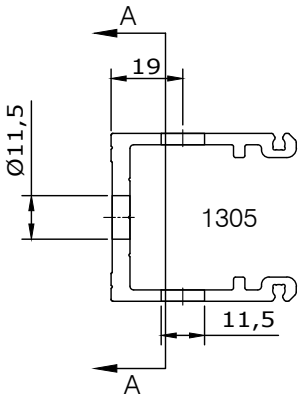
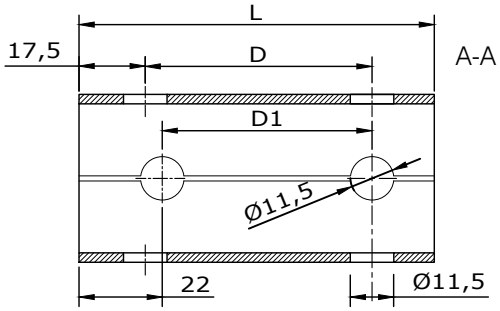
Mullion - Transom Connection





Option 5
Glass weight max. 450 kg





Note:
Cut cleats are for project only and are not held in stock. Cut cleats will be subject to a longer lead time.

Cleat Reference	Transom	L (mm)	D (mm)	D1(mm)
2565	1166 - 125mm	104	75	70
2566	1152 - 135mm	114	75	70
2567	1145, 1154 & 150mm	129	100	95
2568	1147 - 175mm	154	125	120
2569	1156 - 180mm	159	130	125
2570	1157 - 195mm	174	145	140
2571	1148 - 200mm	179	145	140
2572	1158 - 210mm	189	161	156

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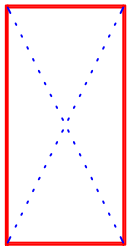
ARCHITECTURAL ALUMINIUM SYSTEMS

Fabrication

7

Comar 6EFT

Future Additions



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Fabricators Guide

FUTURE ADDITION

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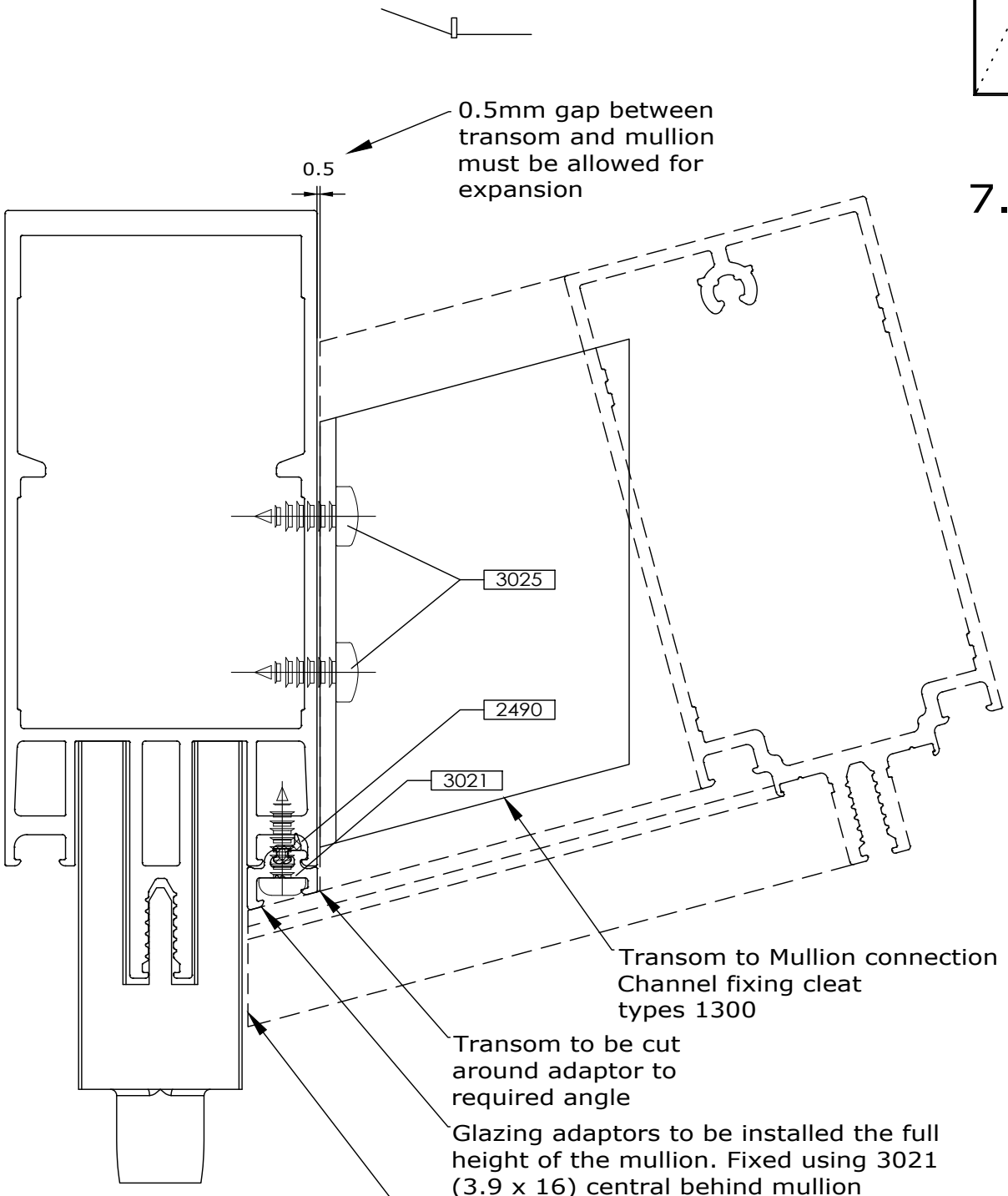
ARCHITECTURAL ALUMINIUM SYSTEMS

Changes reserved
Sous reserve de modifications
Änderungen vorbehalten

Issue: 05
Date : 10-16

Facetted transom preparation
External Corner



7.37

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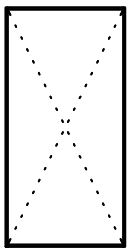
Facetted transom preparation Internal Corner



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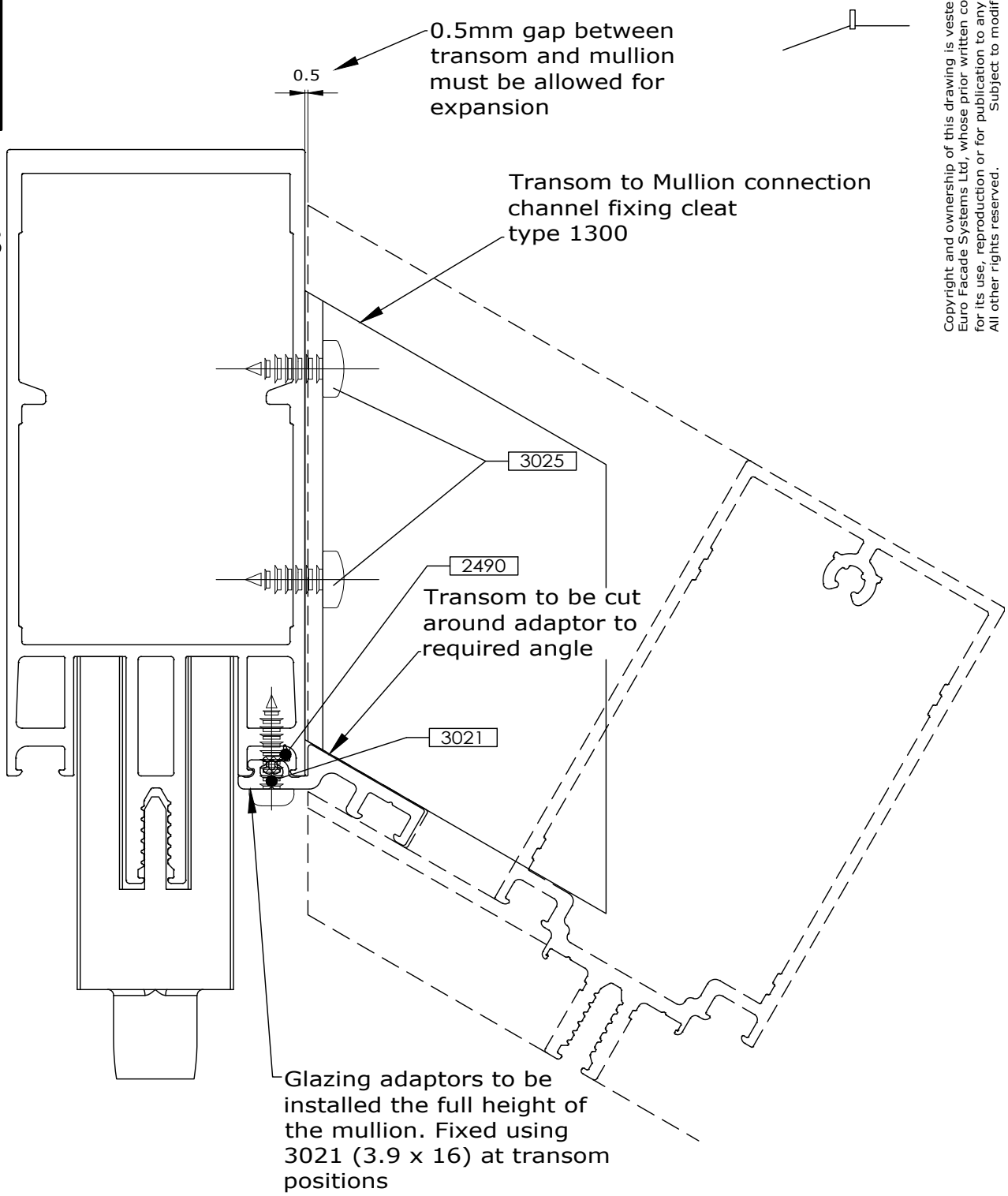

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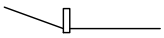
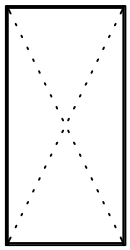
Fixing facatted transoms External Corner





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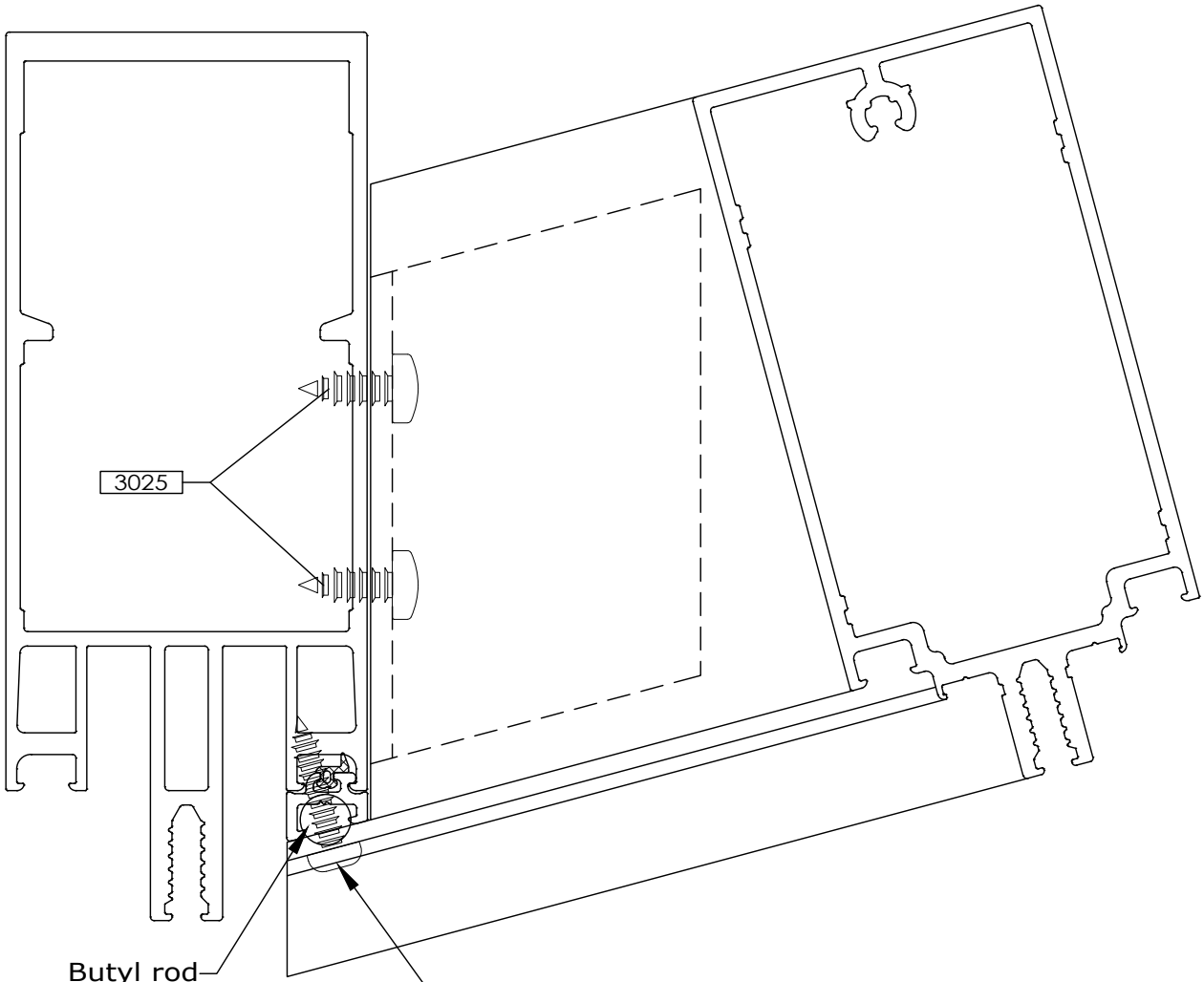

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Fixing facetted transoms
Internal Corner

7.40

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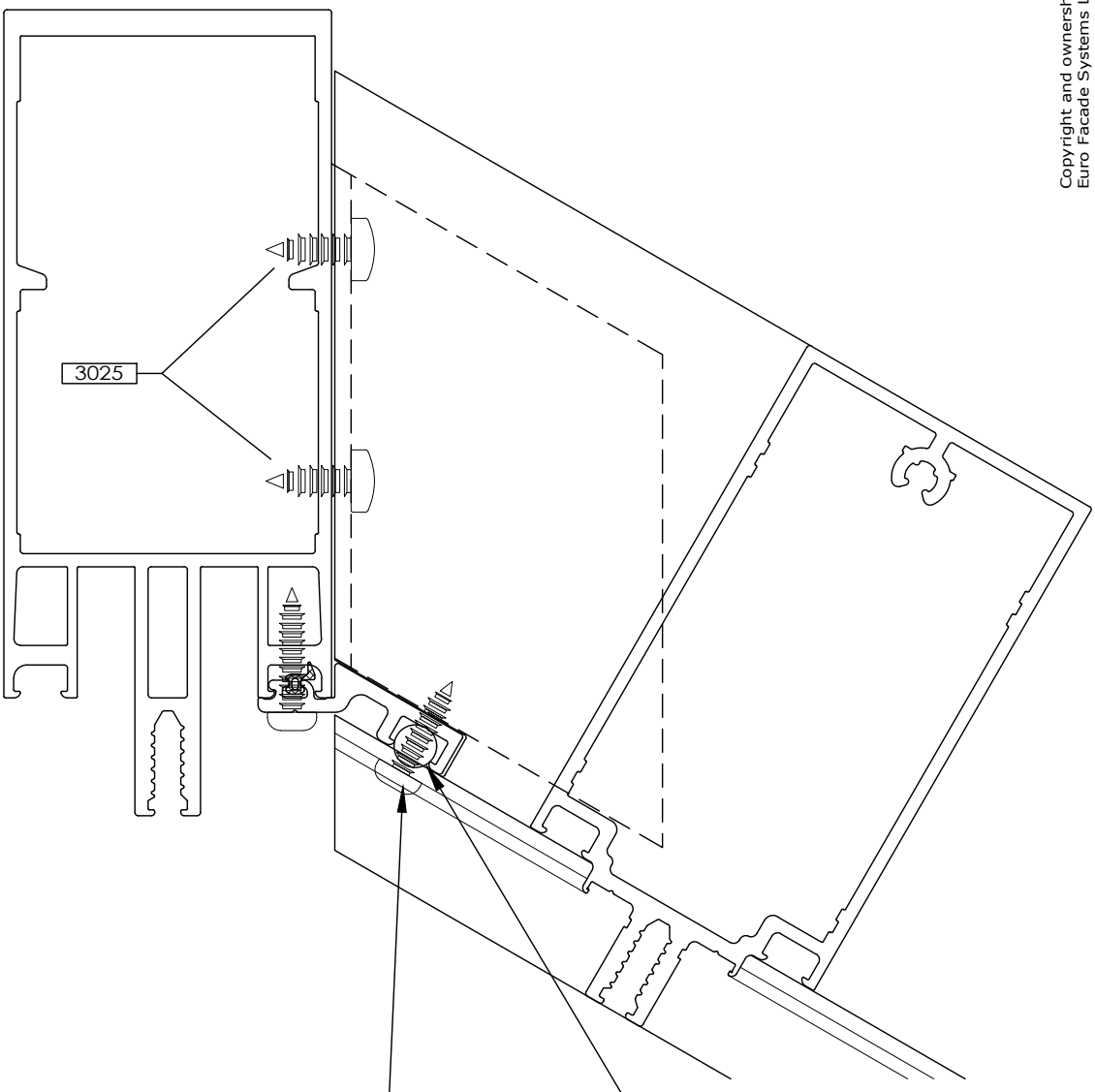

Transoms to be fixed to adaptor with screws 3021 (3.9x16)

For exact angle adaptors ie 7.5°, 15° etc, use transom pad 2028. For all other angles use butyl rod, Ø8mm, 27mm long, supplied by others.

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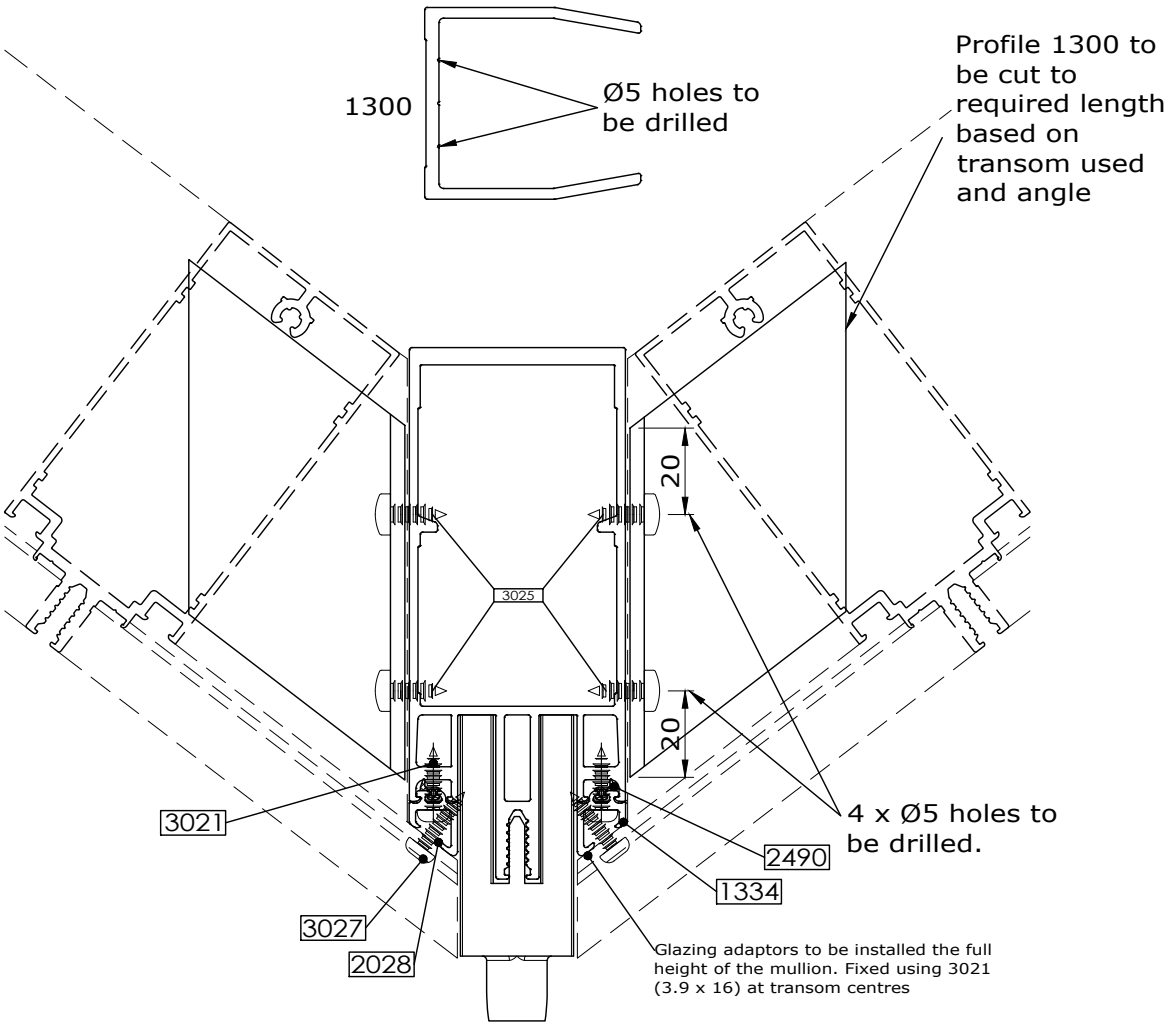
Facatted transom
Cleat Preparation
External Corner

Any facetted transom must be held in place by cleats made from profile 1300 (or 1305 if specified)

Same cleat preparation can be used for outward (reflex) angles.

7.41



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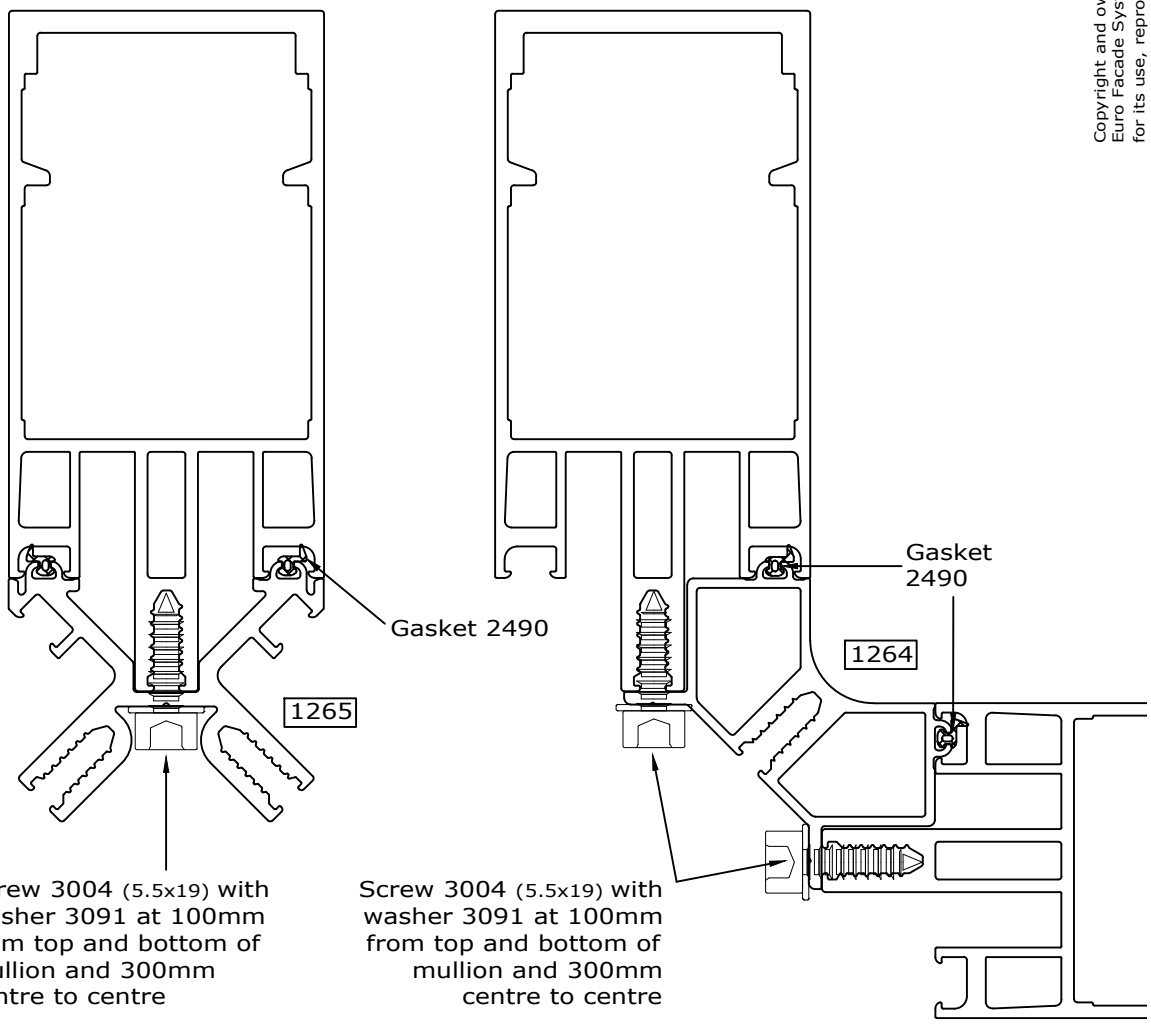
Fixing adaptors 1264 & 1265

7.42



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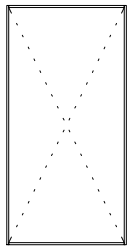
EPDM membrame
Transom Sill, Head & Mullion preparation



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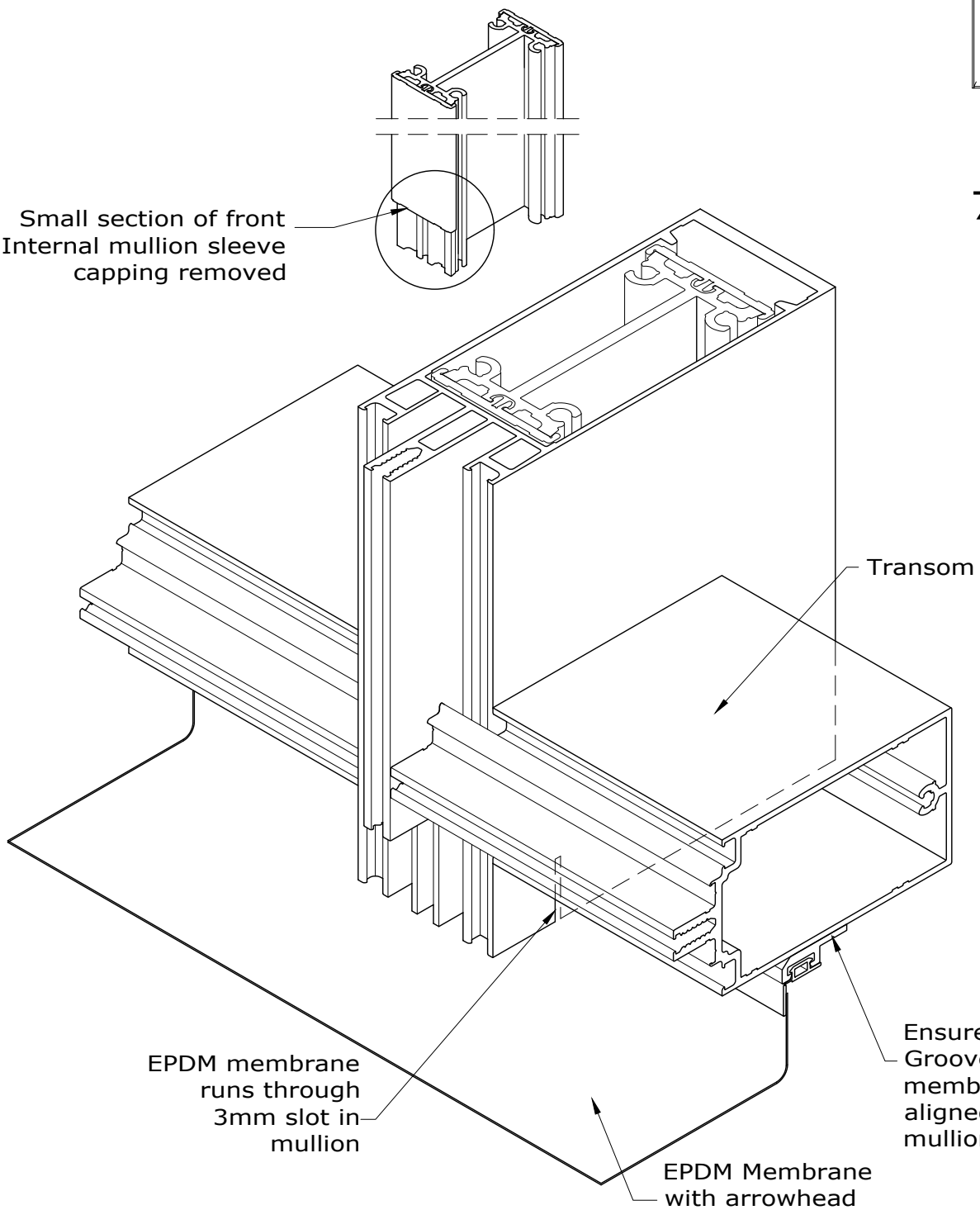

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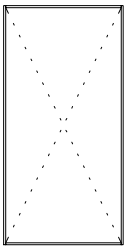
EPDM membrame Curtain wall perimeter Preparation



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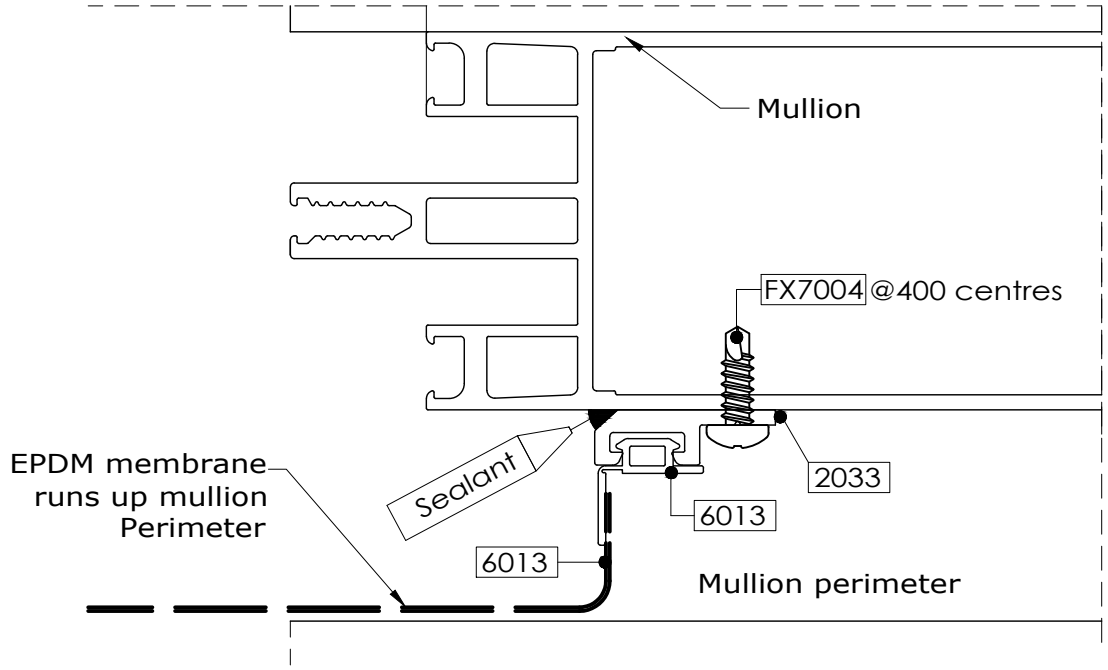

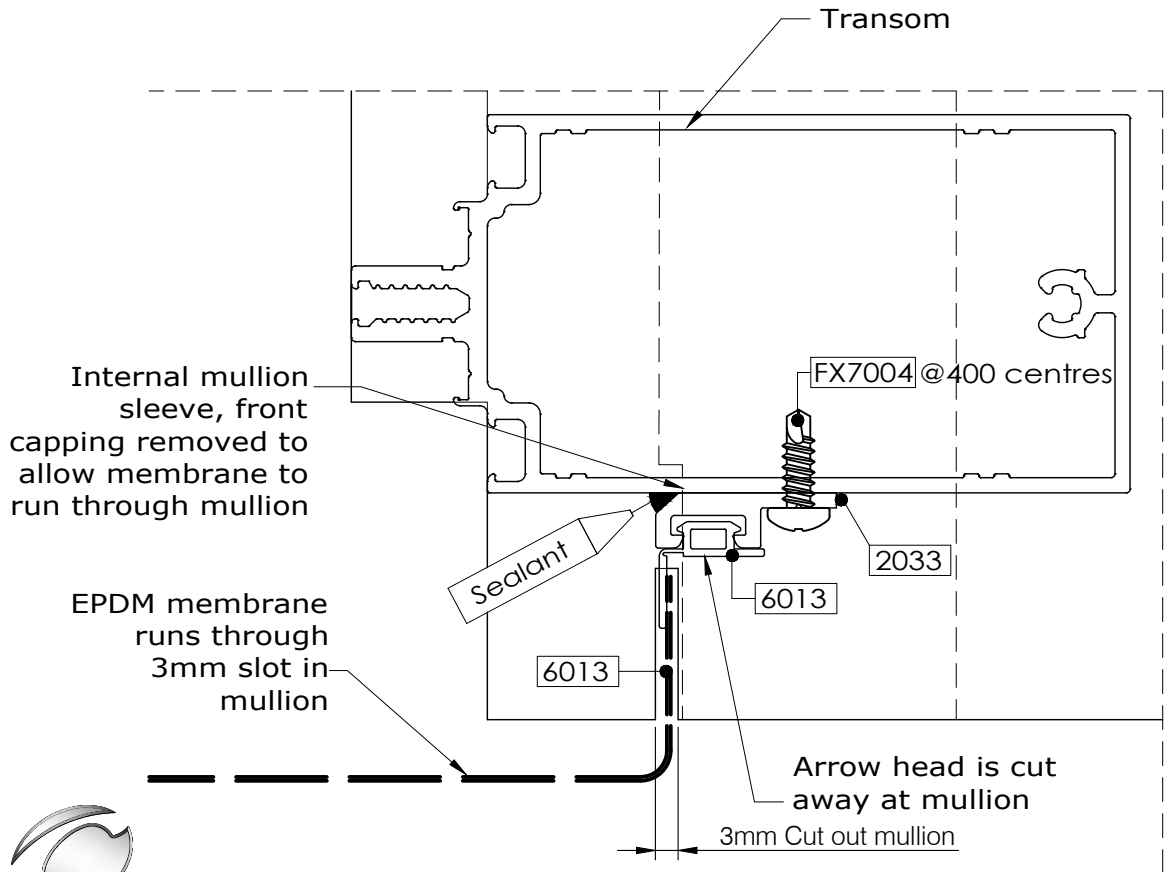

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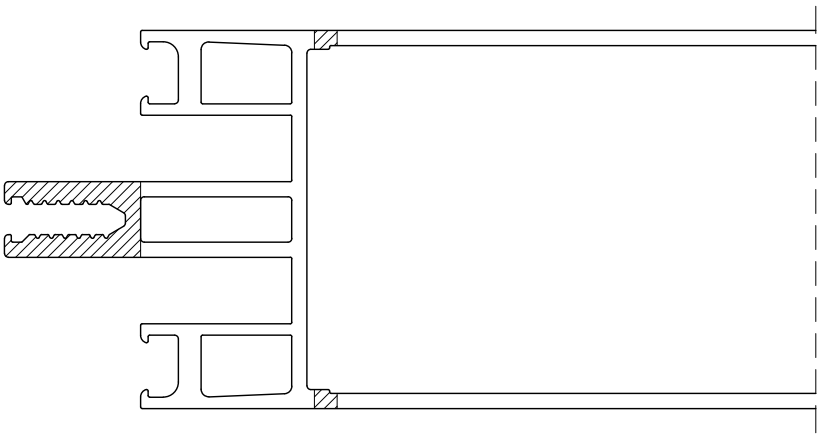
EPDM membrame
Mullion preparation
Slot cutting details



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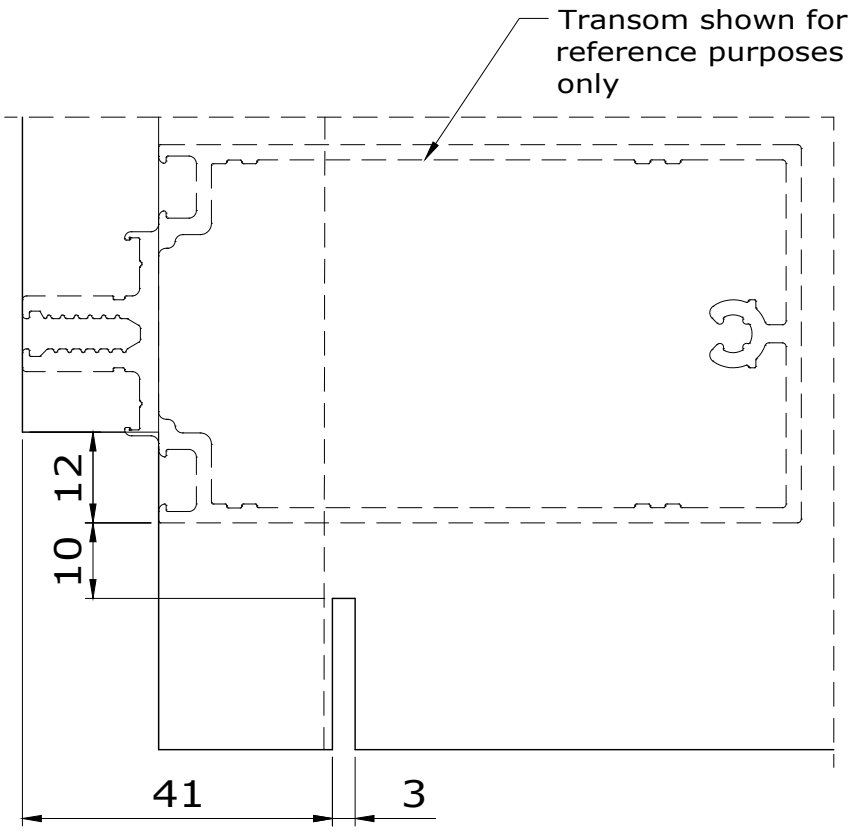

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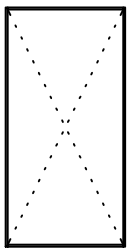
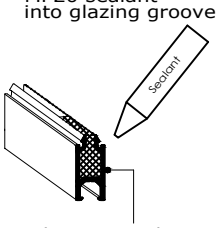
Glazing adaptors



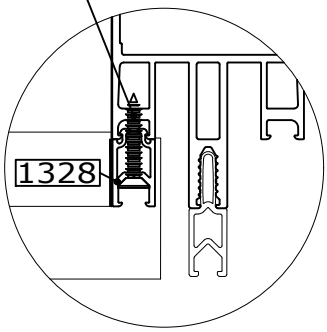
Apply Arbomeric MP20 sealant into glazing groove



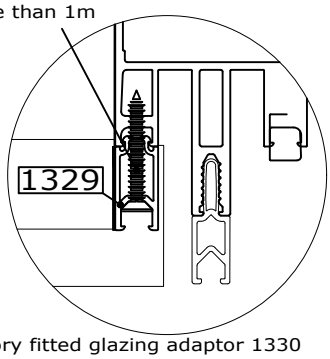
Install gasket 2490 wherever glazing adaptor is to be placed

7.46

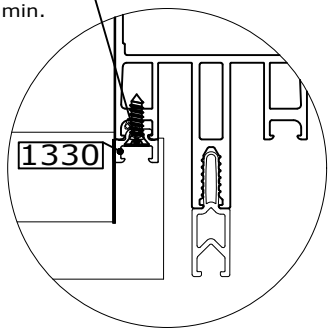
Factory fitted glazing adaptor 1328 fixed with screw 3024 (4.2 mm x 25 mm) Max pitch of 1m. 2 off min.

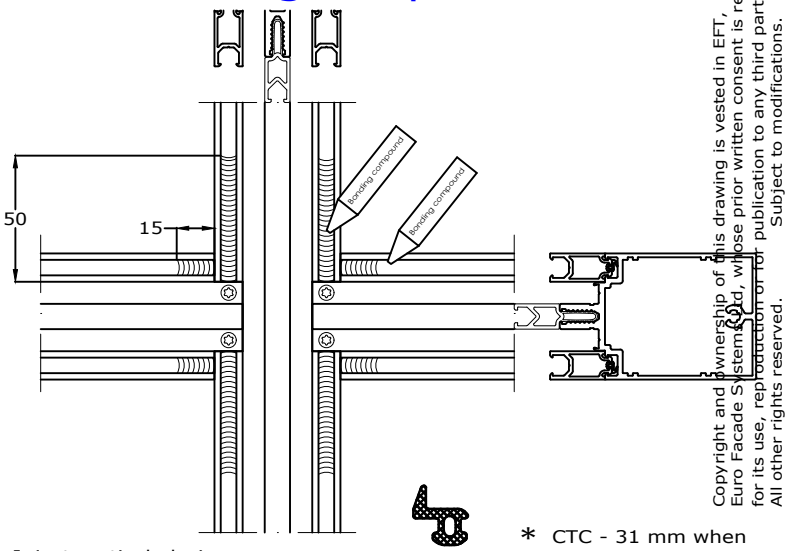


Factory fitted glazing adaptor 1329 fixed with screw 3026 (4.2 mm x 32 mm) 2 No min. Centres not more than 1m



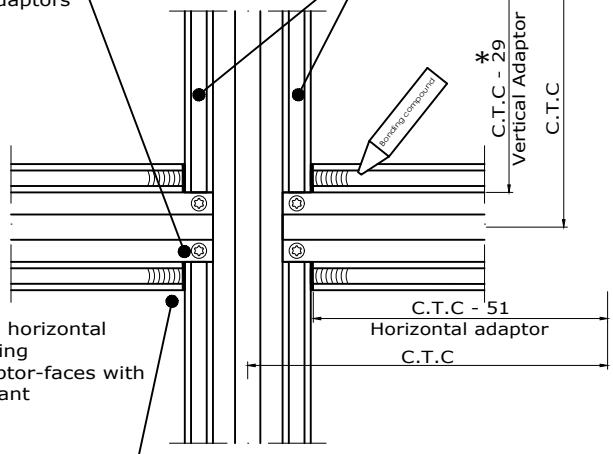
Factory fitted glazing adaptor 1330 fixed with screw 3028 (3.5 mm x 13 mm) Max pitch of 1m. 2 off min.





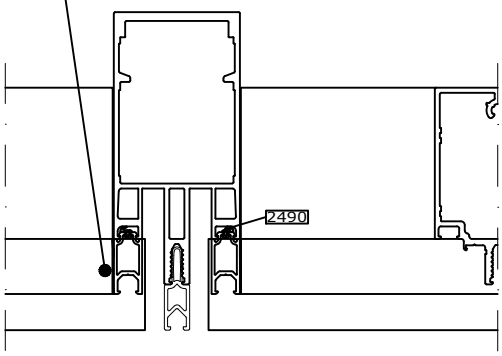
Inject vertical glazing adaptors at top with sealant and install adaptors

* CTC - 31 mm when the adaptor is bridging a mullion coupling



Seal horizontal glazing adaptor-faces with sealant

Install horizontal glazing adaptor



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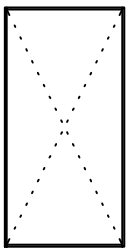
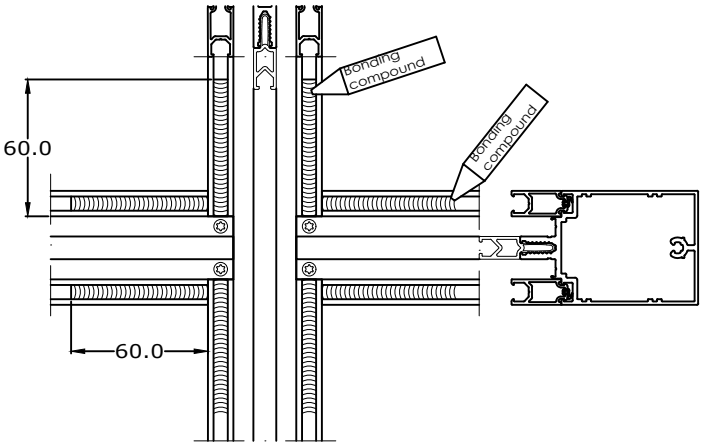
Internal gaskets & corners

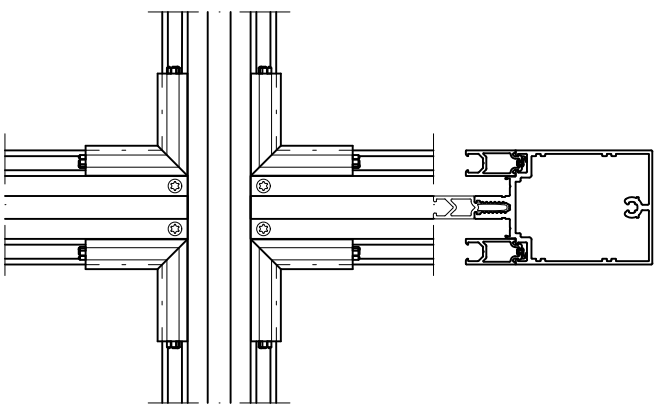


7.47

Apply bonding compound into glazing groove



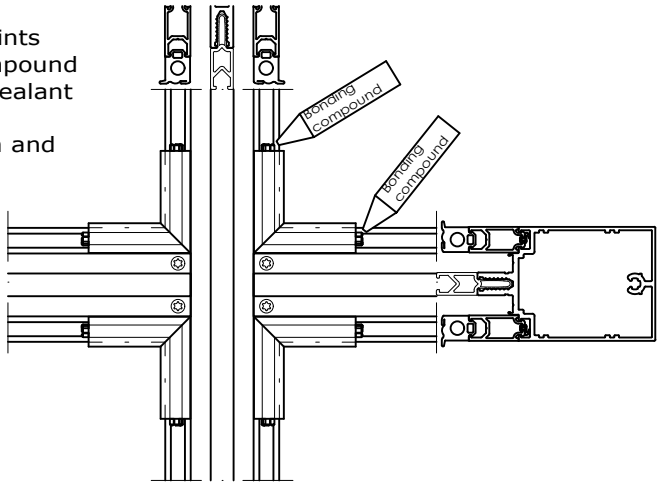
Install moulded gasket corners



Cut EPDM glazing gasket to required length between corner mouldings +5% to ensure compression of the gaskets

Bond corner to gasket joints using EPDM bonding compound or a MS Polymer based sealant

Slide gasket into position and clean off excess sealant



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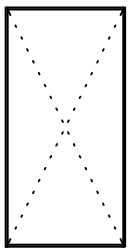
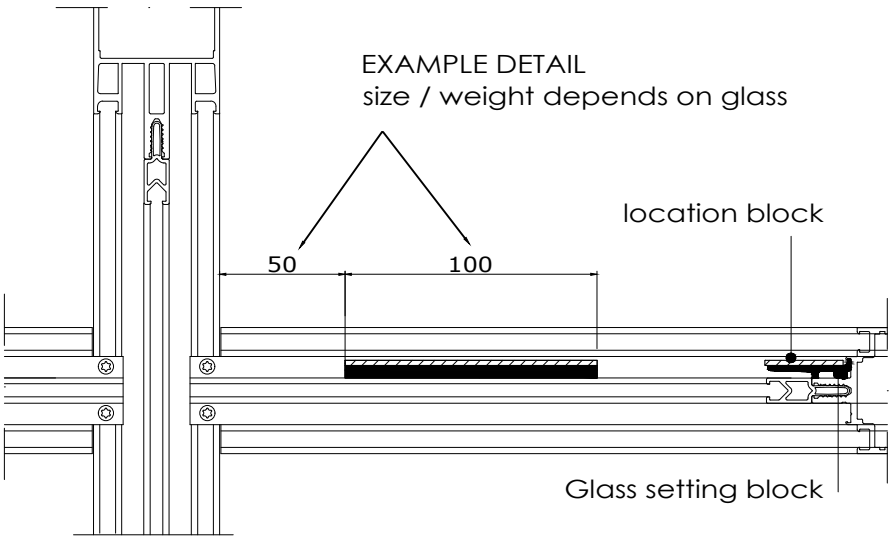
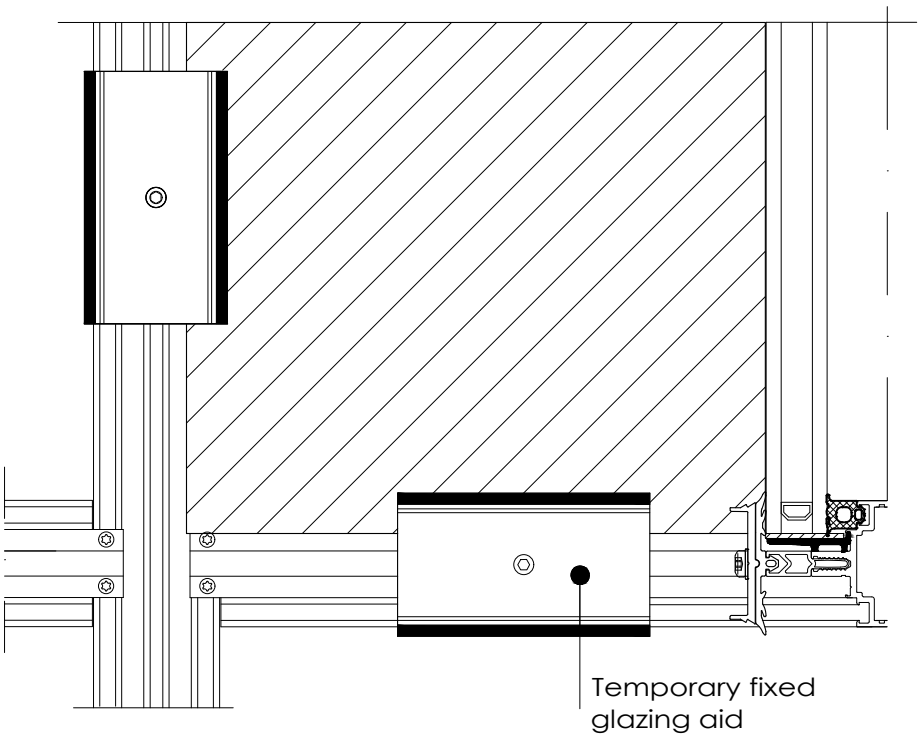


Location of glass setting blocks & temporary glazing aids

7.48





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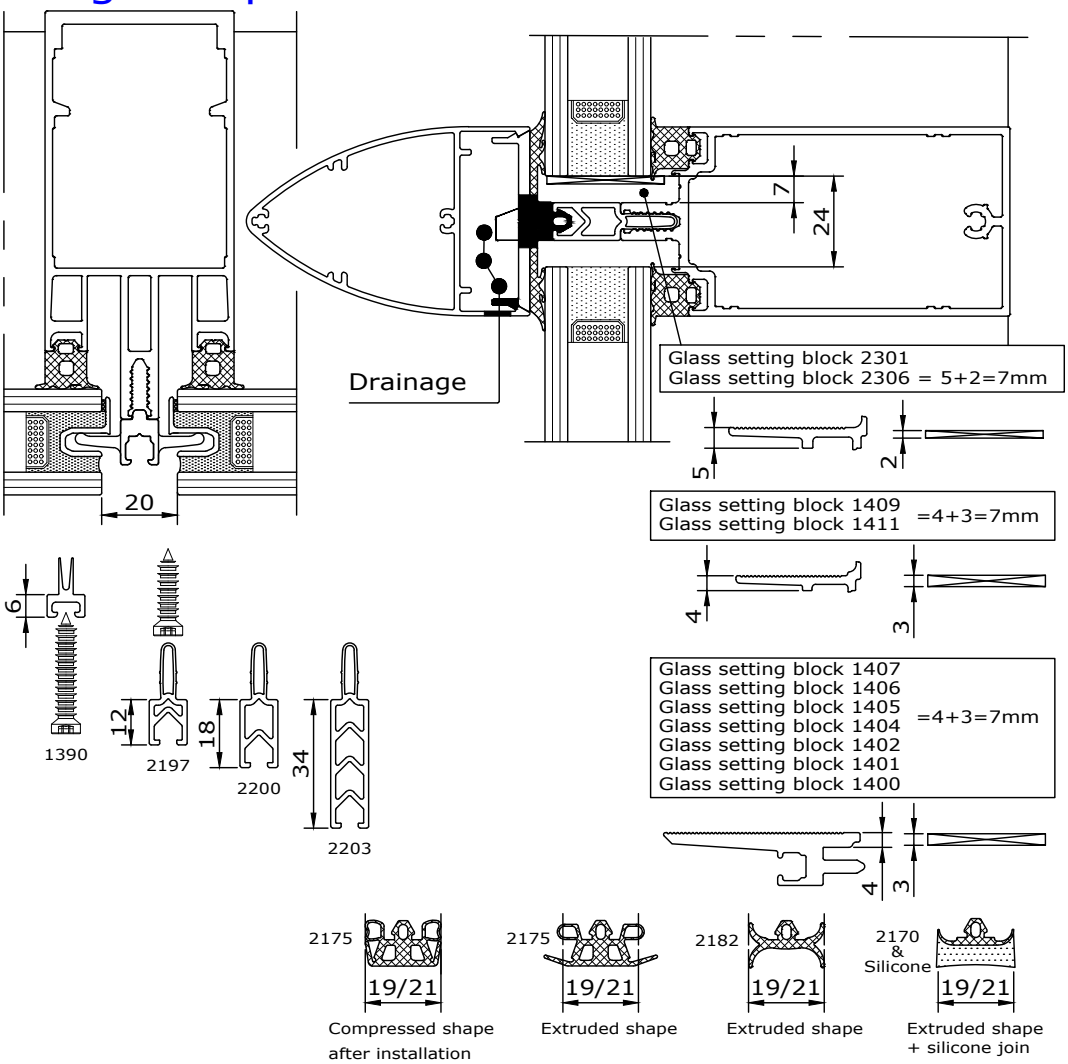
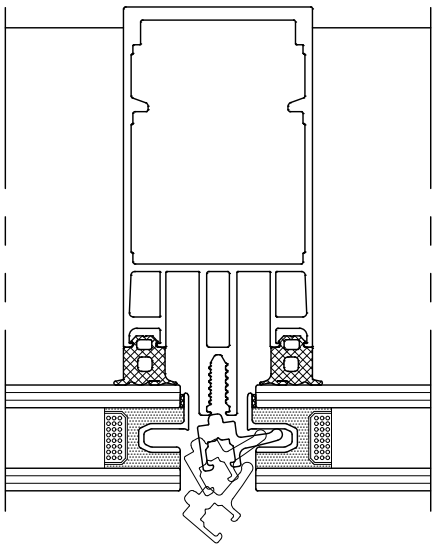
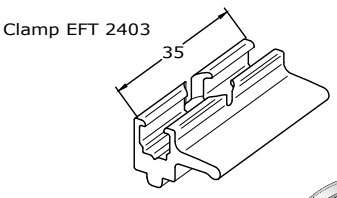
Fixing glazing insert and fixing clamp







7.49

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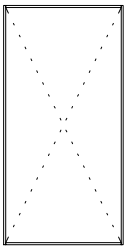
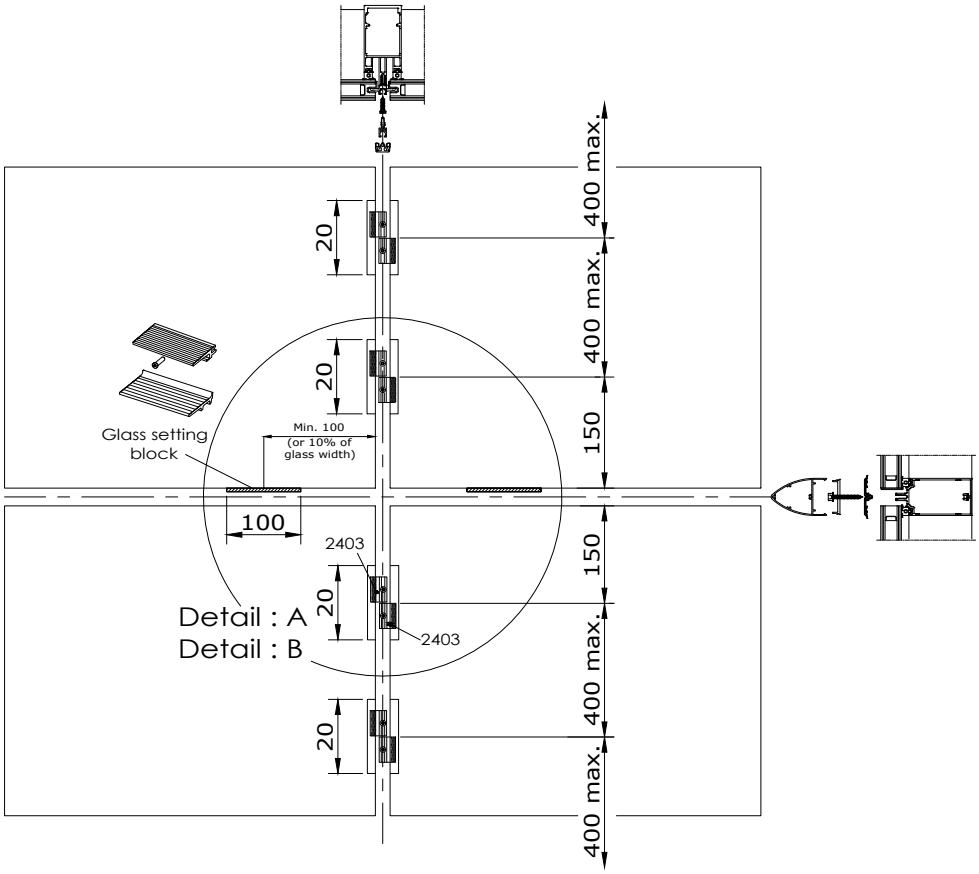


Location of glazing inserts, fixing clamps and glass setting block

7.50



Fabricators Guide

Location glazing insert and fixing clamps 2sided SGH (Two Sided Structural Glazed Horizontal cover cap)

1 Glazing inserts (EFT 2401, 2402, 2405, 2416, 2418, 2420)

Left & right edges of glass: Glazing inserts to be located 150mm edge of glass to center of glazing insert at either end. Inserts then spaced at 400mm max. center to center towards the center of the glass unit.

If the center of the glass unit is reached and there is more than a 400mm space between center of inserts, you may go up to a max. of 450mm C.T.C. between those inserts.

Left & right edges of glass: Dependant on wind load, building height and local situation, the glass manufacturer may approve that less inserts can be used. Transom C.T.C <700mm no clamps, C.T.C 700-1000mm 1 clamp, C.T.C 1000-1300mm 2 clamps, C.T.C 1300-1600mm 3 clamps etc.

2 Fixing clamp (EFT 2403)

To be fixed (with screw 5.5 x 23 - 3029 or 5.5x29- 3030)

3 Glass setting block (140x - series)

To be fixed (with screws 5.5 x 23 , 3029)

Location and spacing of glazing inserts & glass setting blocks to be approved by glass manufacturer.

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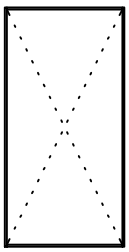
Location of glazing inserts fixing damps and glass setting block



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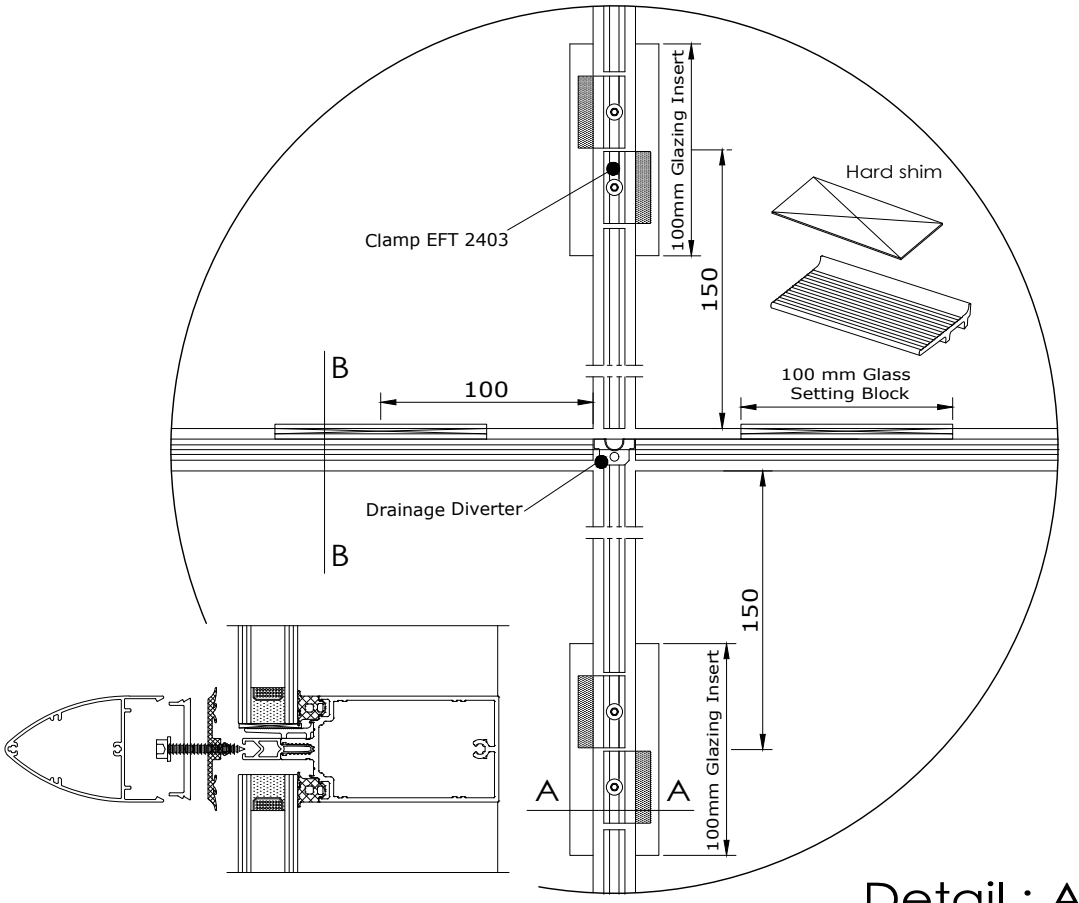
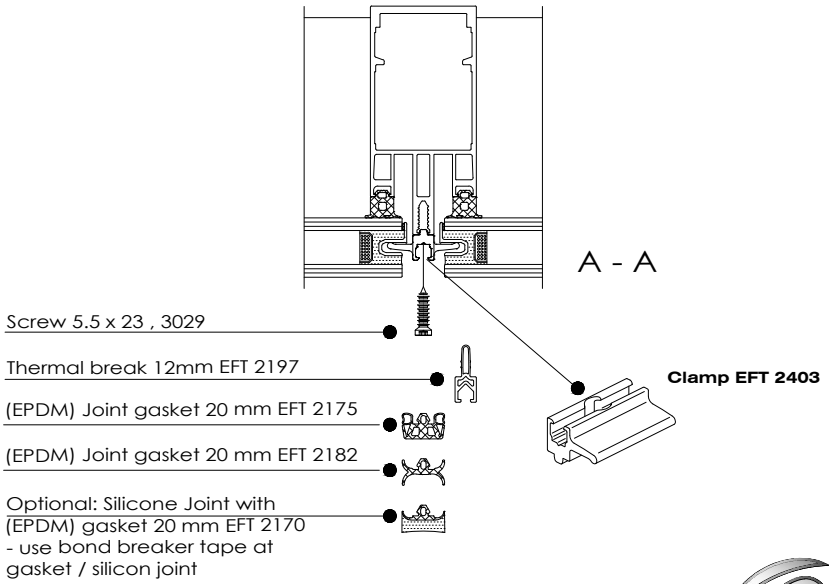


B - B

Detail : A



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Location of glazing insert, fixing clamps and glass setting block

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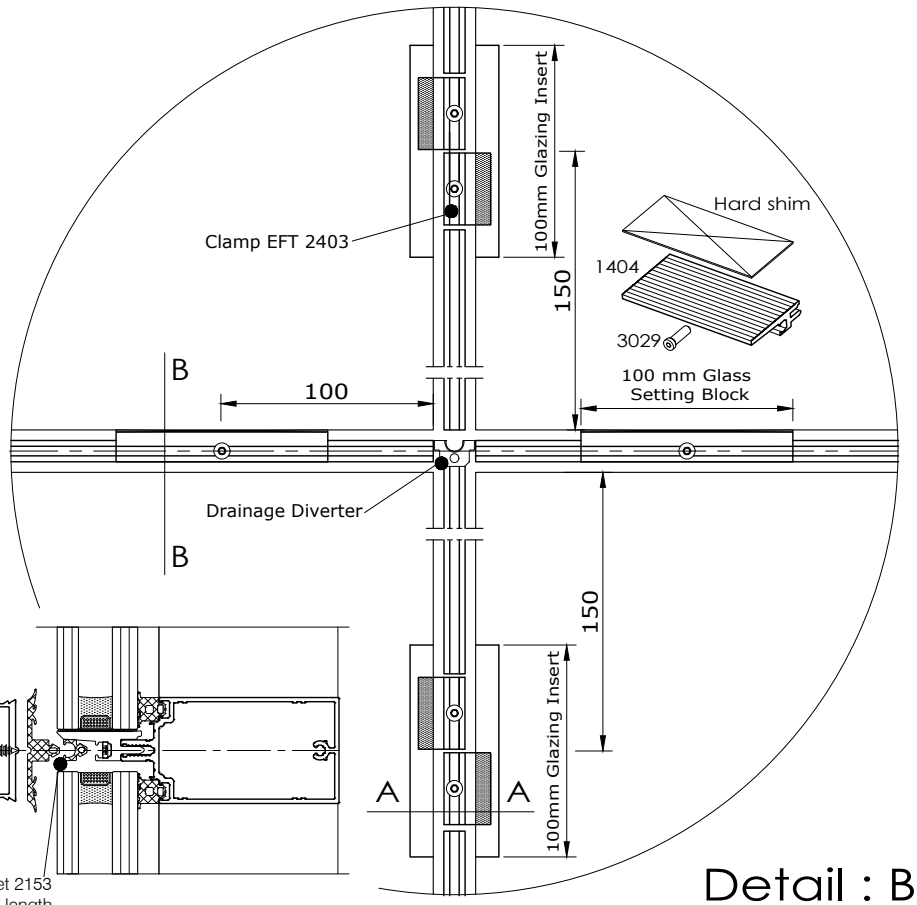
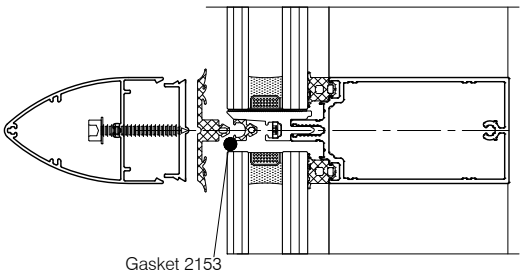
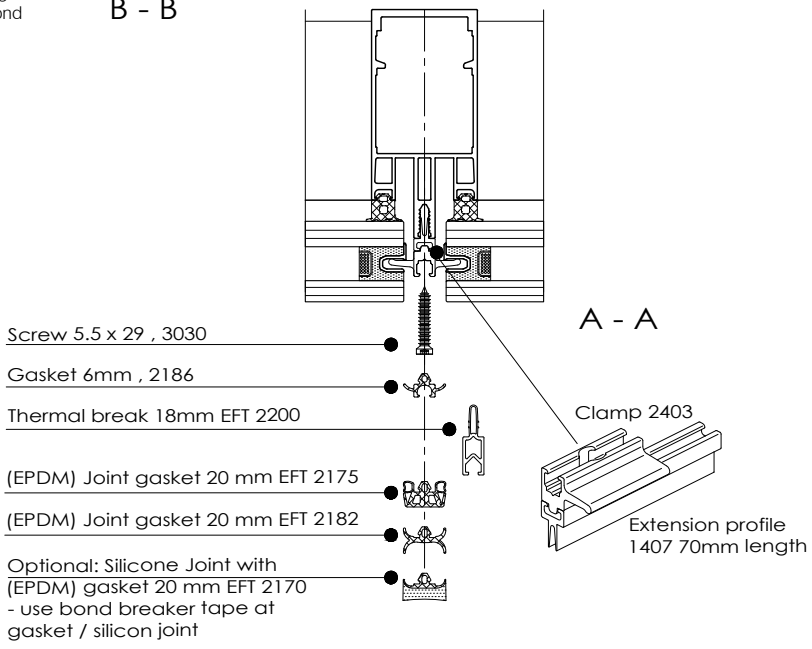


Detail : B



Gasket 2153
6mm thick, 100 mm length
2200 thermal break beyond

B - B



A - A

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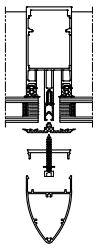
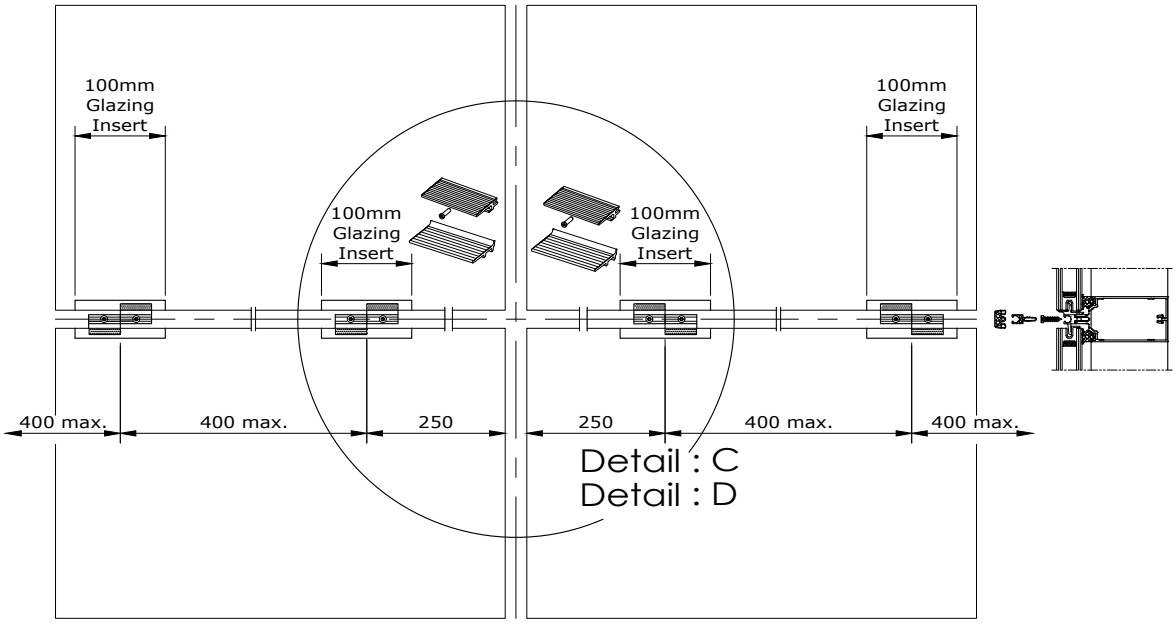
Spacing of inserts and clamps





Location of glazing inserts and fixing clamps 2sided SGV (Two Sided Structural Glazed, vertical cover cap)

1 Glazing inserts (EFT 2401, 2402, 2405, 2416, 2418, 2420)

Top and bottom edge of glass: Glazing inserts to be located 250mm edge of glass to center of glazing insert at either end. Inserts then spaced at 400mm max. center to center towards the center of the glass unit.

If the center of the glass unit is reached and there is more than a 400mm space between center of inserts, you may go up to a max. of 450mm C.T.C. between those inserts.

Transom C.T.C<700mm no clamps, C.T.C 700-1000mm 1 clamp, C.T.C 1000-1300mm 2 clamps, C.T.C 1300-1600mm 3 clamps etc.
Dependant on wind load, building height and local situation, the glass manufacturer may approve that less or more inserts can be used.

2 Fixing clamp (EFT 2403)

Clamps to be fixed (with screw 5.5x 23 - 3029 or 5.5x29- 3030)

3 Glass setting block (140x - series)

To be fixed (with screws 5.5 x 23 , 3029)

Location and spacing of glazing inserts & glass setting blocks to be approved by glass manufacturer.

Installation 7

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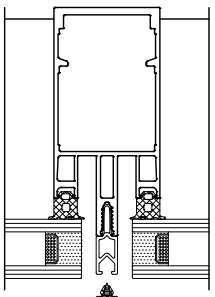
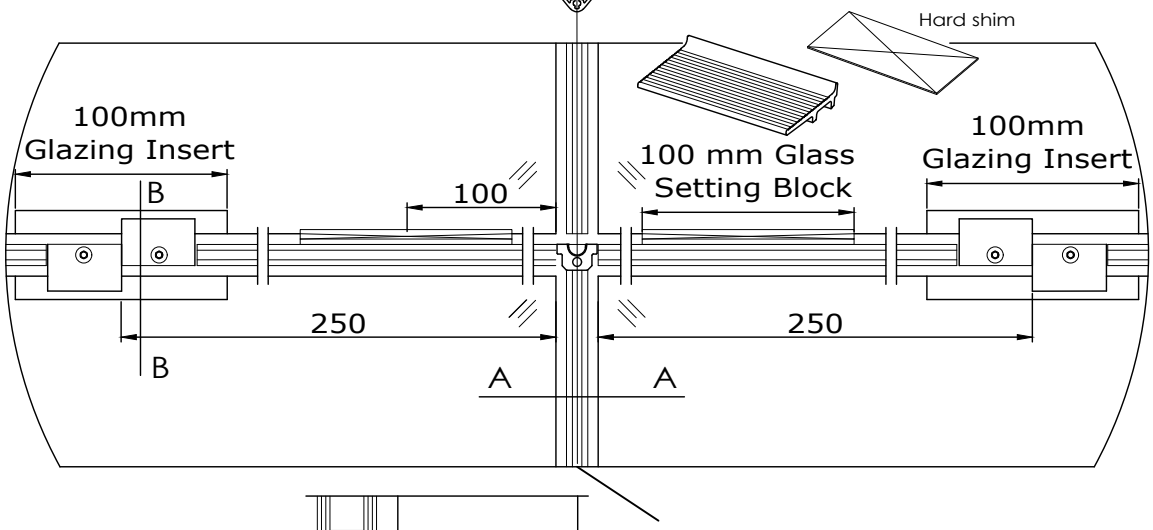
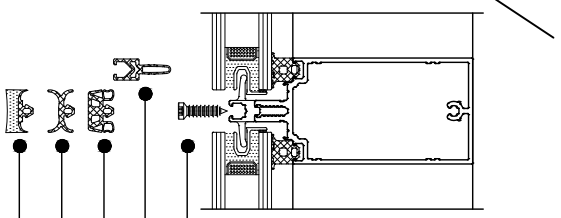
Location of glazing inserts, fixing clamps and glass setting block

7.54



A - A





Detail : C

B - B

Screw 4.8 x 22 , 3092

Thermal break 12mm EFT 2197 beyond

(EPDM) Joint gasket 20 mm EFT 2175

(EPDM) Joint gasket 20 mm EFT 2182

Optional: Silicone Joint with
(EPDM) gasket 20 mm EFT 2170
- use bond breaker tape at
gasket / silicon joint

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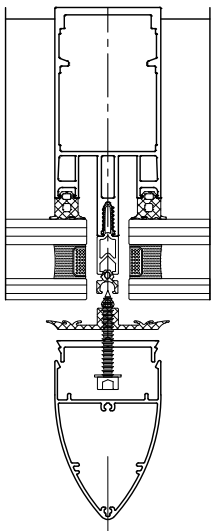
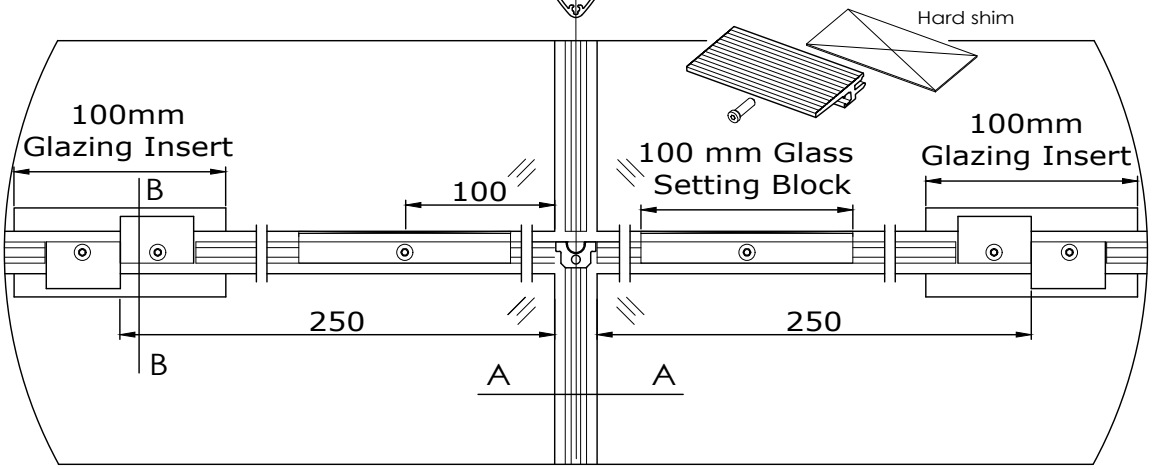
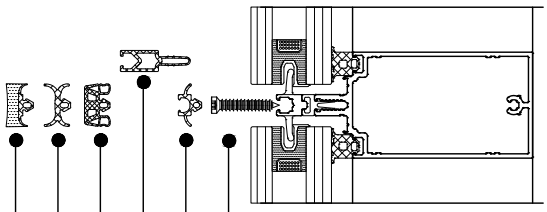
Location of glazing insert fixing damps and glass setting block



A - A





B - B

Screw 5.5 x 29 , 3030

Thermal break 18mm EFT 2200 beyond

Thermal break 18mm EFT 2200 beyond

(EPDM) Joint gasket 20 mm EFT 2175

(EPDM) Joint gasket 20 mm EFT 2182

Optional: Silicone Joint with (EPDM) gasket 20 mm EFT 2170 - use bond breaker tape at gasket / silicon joint

Detail : D

7.55

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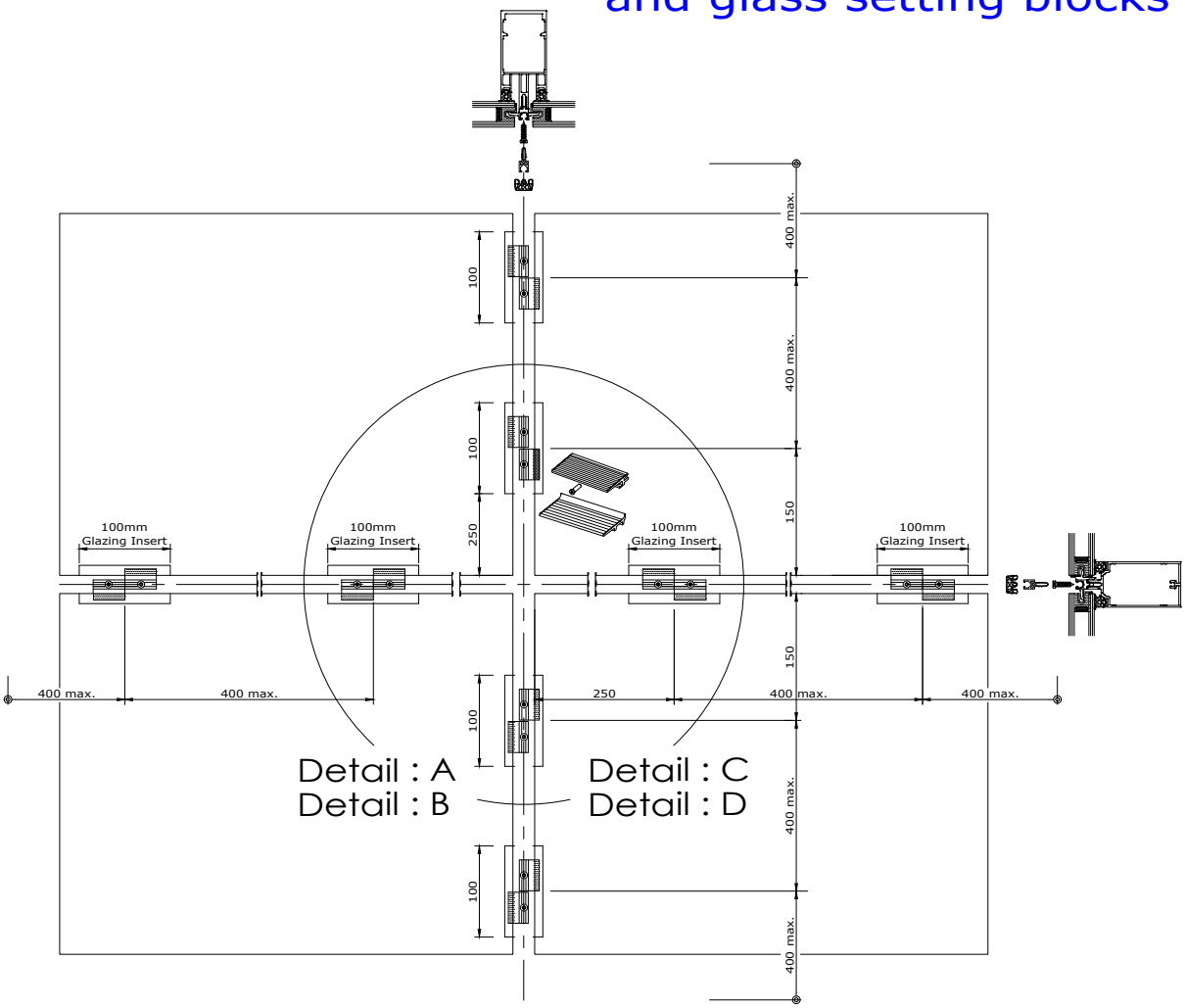
Comar 6EFT

Spacing of insert, damps and glass setting blocks

7.56



Location glazing insert and fixing clamps - 4 sided Structural Glazing

1 Glazing inserts (EFT 2401, 2402, 2405, 2416, 2418, 2420)

Top and bottom edge of glass: Glazing inserts to be located 250mm edge of glass to center of glazing insert at either end. Inserts then spaced at 400mm max. center to center towards the center of the glass unit.

Left & right edges of glass: Glazing inserts to be located 150mm edge of glass to center of glazing insert at either end. Inserts then spaced at 400mm max. center to center towards the center of the glass unit.

If the center of the glass unit is reached and there is more than a 400mm space between center of inserts, you may go up to a max of 450mm C.T.C. between those inserts.

2 Fixing clamp (EFT 2403)
Clamps to be fixed (with screw 5.5 x 23 - 3029 or 5.5 x 29 - 3030)

3 Glass setting block (140 x - series)

To be fixed (with screws 5.5 x 23 , 3029)

Location and spacing of glazing inserts & glass setting blocks to be approved by glass manufacturer.

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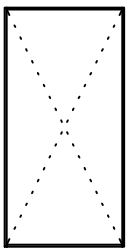
Thermal break installation



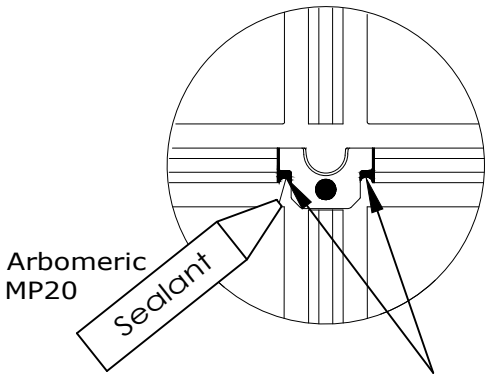
For correct isolator/thermal break, refer to glazing charts in section 3.

2 or 4 sided structural glazing

The thermal break must be cut to length between glass setting blocks and clamps.

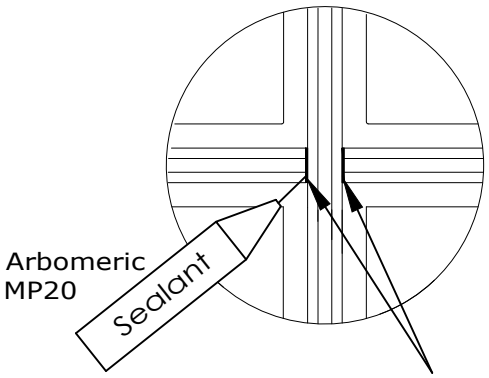
Isolator/thermal break to be sealed as shown below in all configurations.

Where a drainage diverter is installed



Apply sealant at both edges of transom-thermal break

Where no drainage diverter is installed



Apply sealant at both edges of transom-thermal break

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Drainage diverter Installation

Drainage diverters are to be installed:

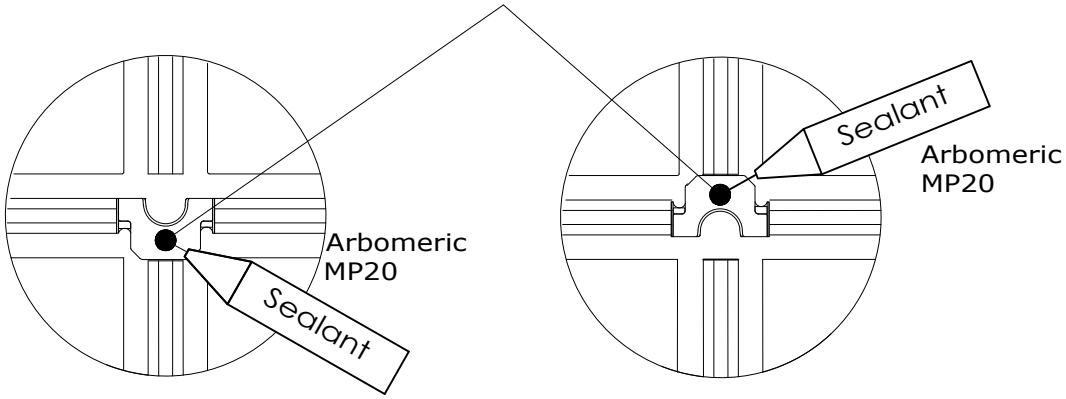
- On each mullion at the transom joint nearest the ground.
- Upside down at the highest mullion-transom joint.
- Each mullion for the cruciform above each mullion joint.
- The mullion-transom joint above any doors.

Notes:

- A drainage diverter at every cruciform for zone drainage is optional.
- For 4 sided structural jobs, spout of drainage diverter to be cut back to 3mm long. Refer to page 7.41.
- For correct drainage diverter, refer to glazing charts in section 3.

Locate drainage diverter ensuring it is pushed back flush with the mullion

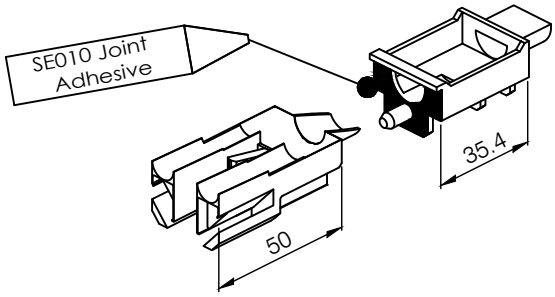
Inject sealant into hole in drainage diverter and ensure sealant covers all sides



- Lowest mullion-transom joint
- Cruciform above each mullion joint
- At mullon-transom connection above doors

- Installed upside down at highest mullion-transom > 3m in height (for pressure equalisation)

Connection Drainage diverters XX2023 (50mm) & Extension drainage diverter (35mm) XX2032



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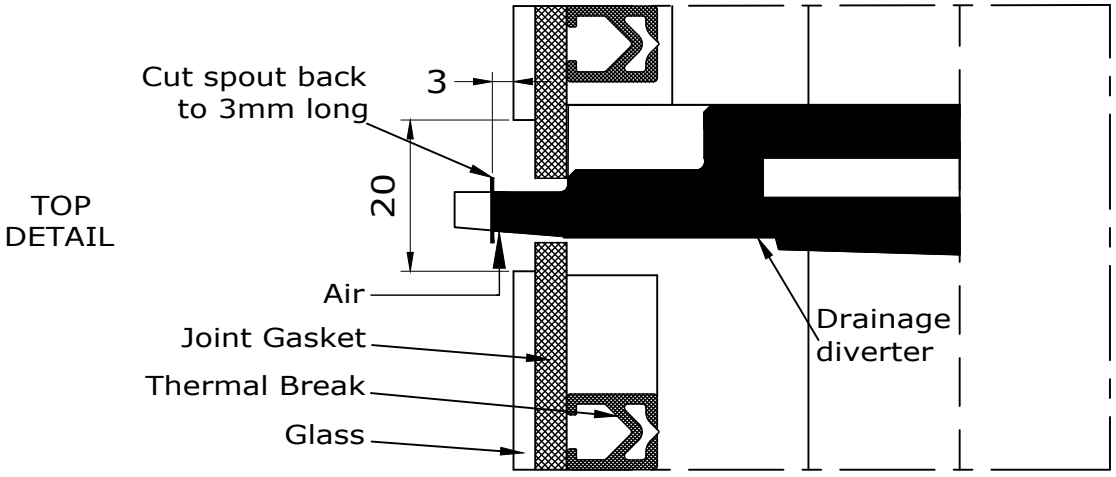
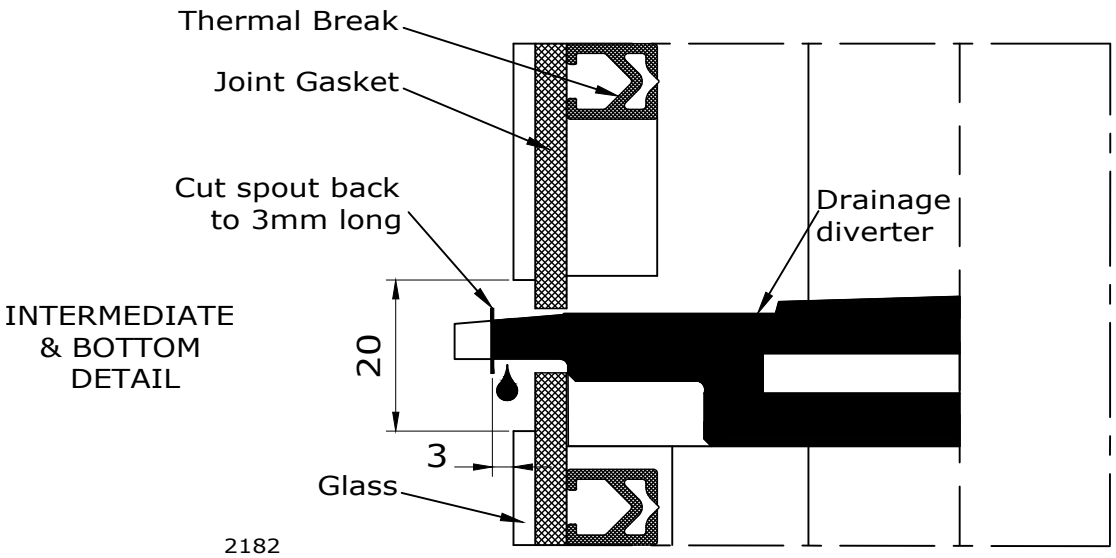
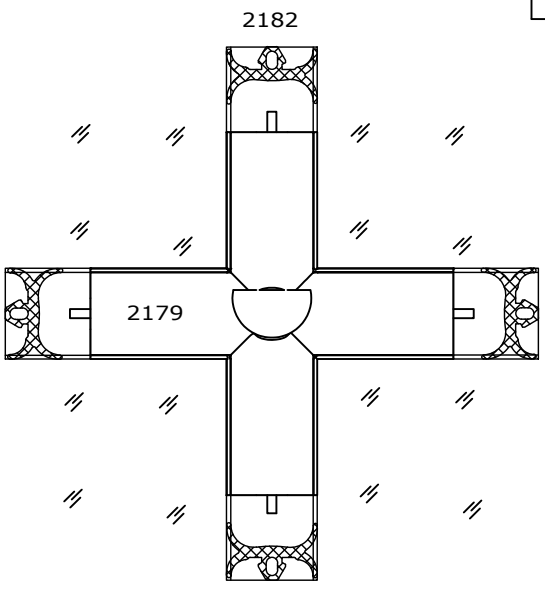
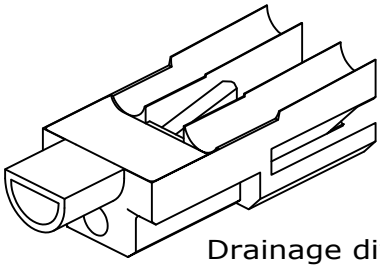
4sided SG drainage & ventilation detail









Drainage diverter:
-2021 50mm
-2019 54mm
-2020 56mm
-2026 64mm
-2027 72mm

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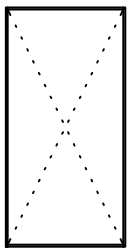
Drainage & Ventilation by Individual Window



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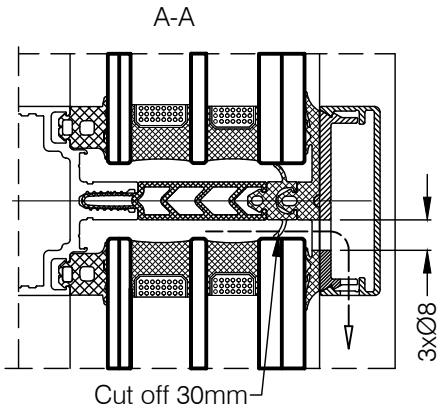

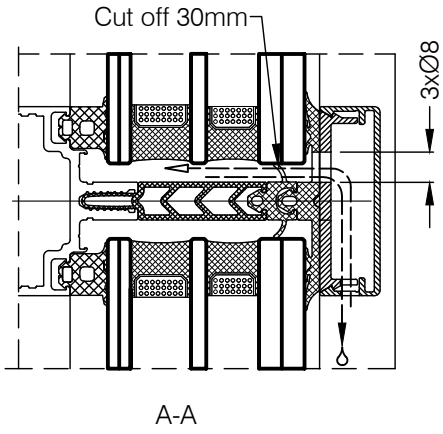

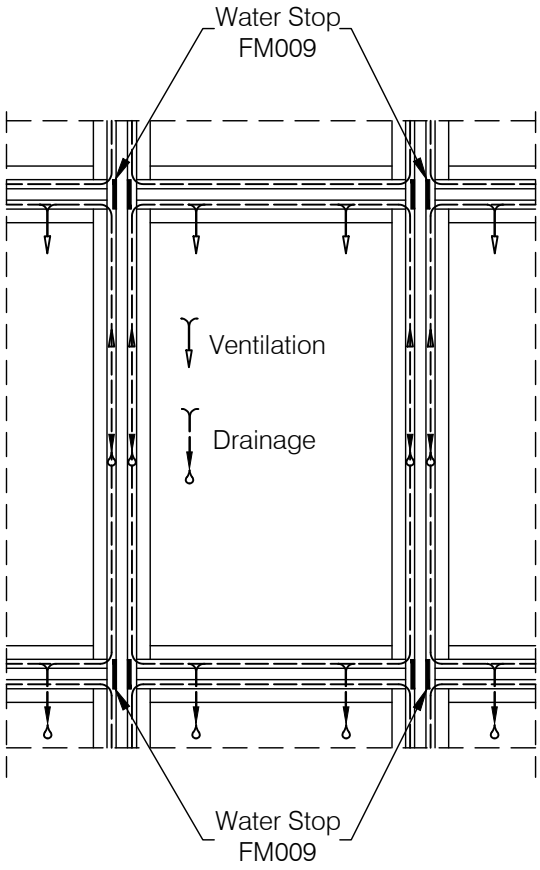

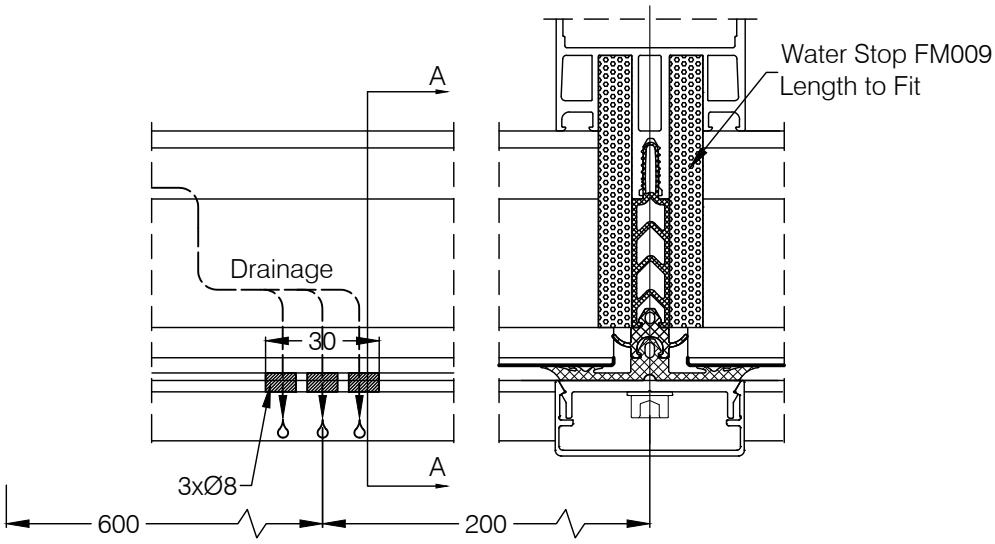

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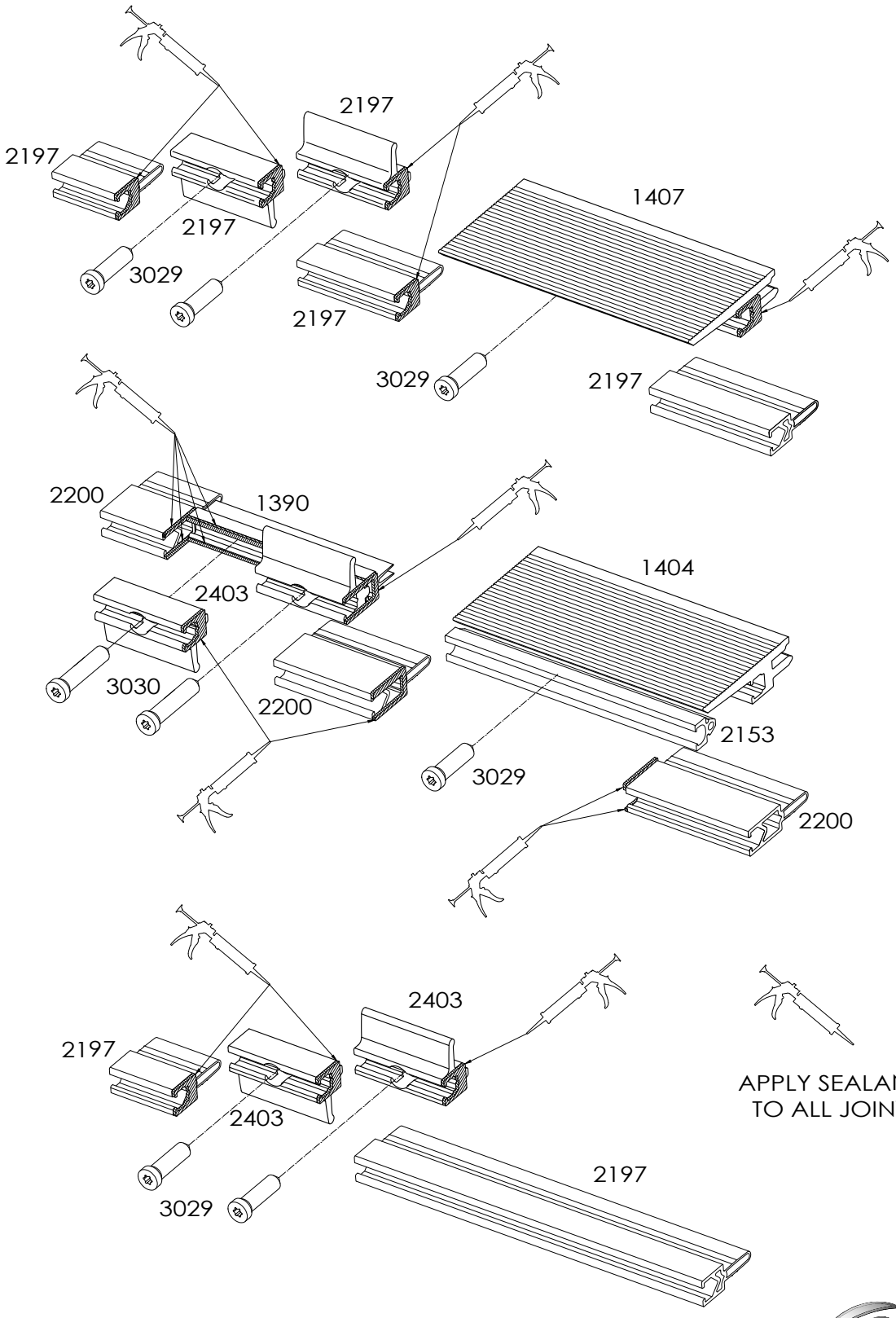
Sealing



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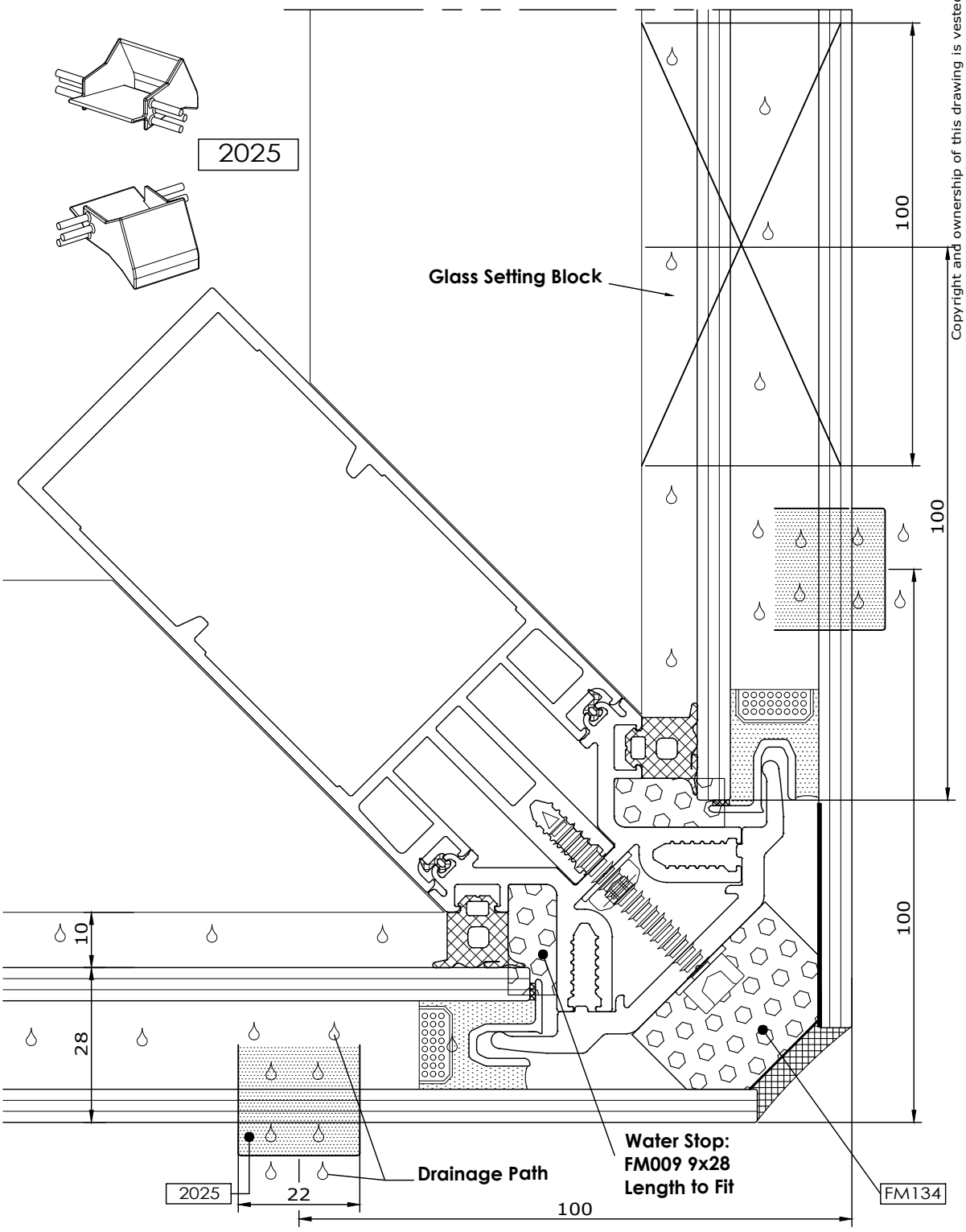
Transom drainage diverter

Transom drainage diverter 2025 to be used on 4 sided SG facetted screens and any 4sided SG corners.

2025

7.62



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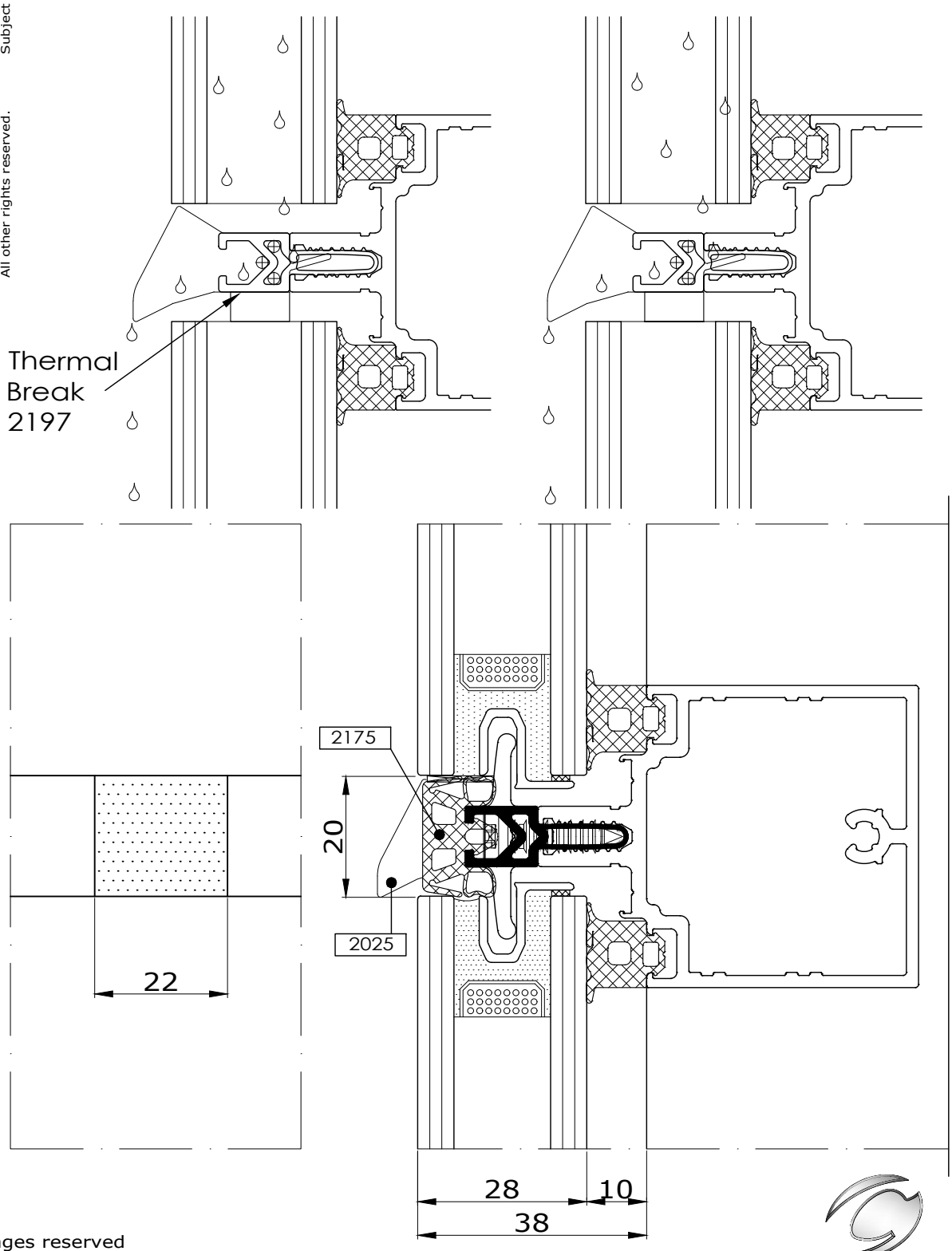
Transom drainage diverter

Transom drainage diverter 2025 to be used on 4sided SG facetted screens and any 4 sided SG corners.



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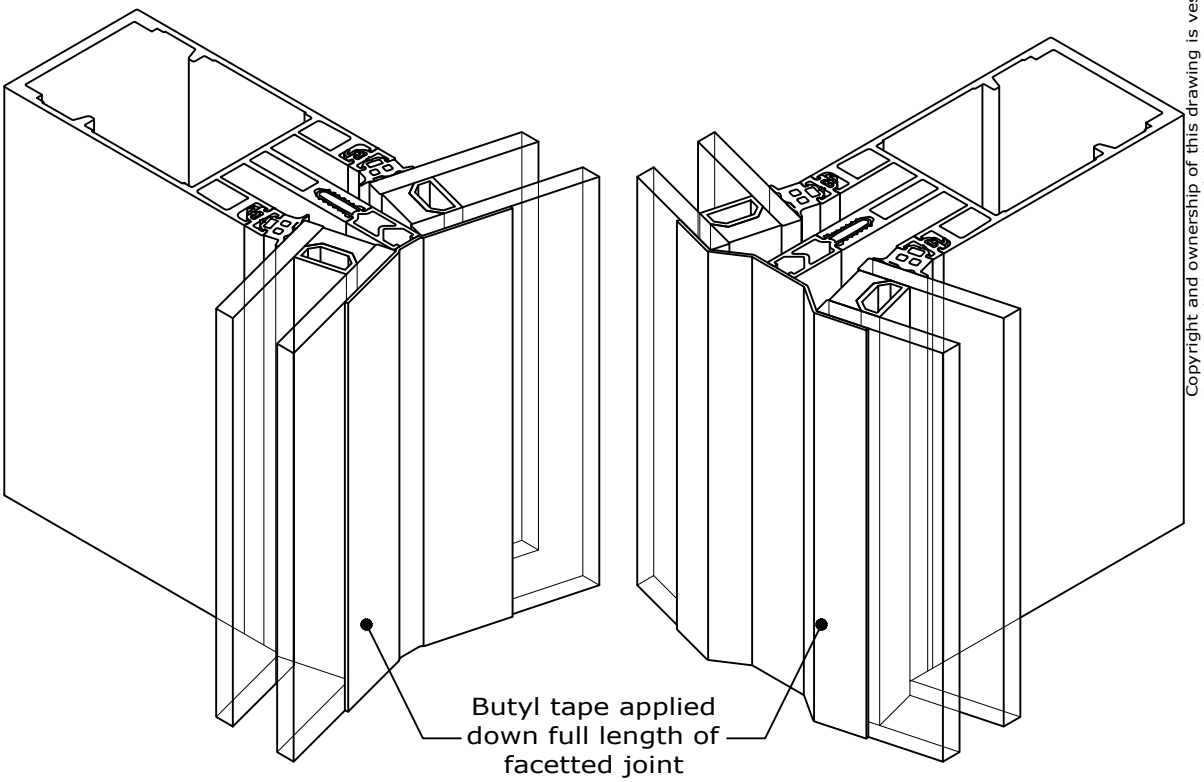
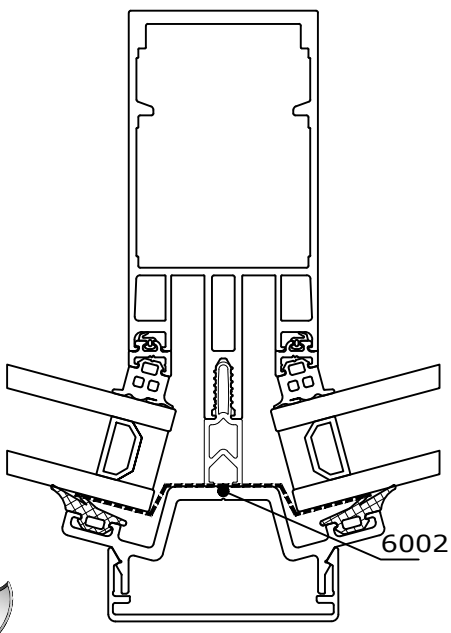
Butyl tape application

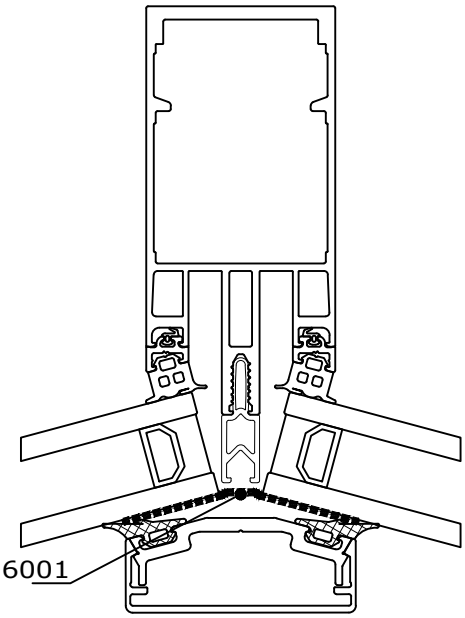
7.64



Butyl tape 6001 or 6002 to be installed full height of the mullion down any facetted angle joint to be covered by a pressure plate & cover cap.

Punched & drilled holes for pressure plate screws, drainage diverters and pressure equalization.





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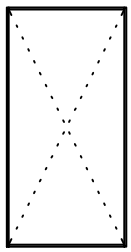
Single gasket installation



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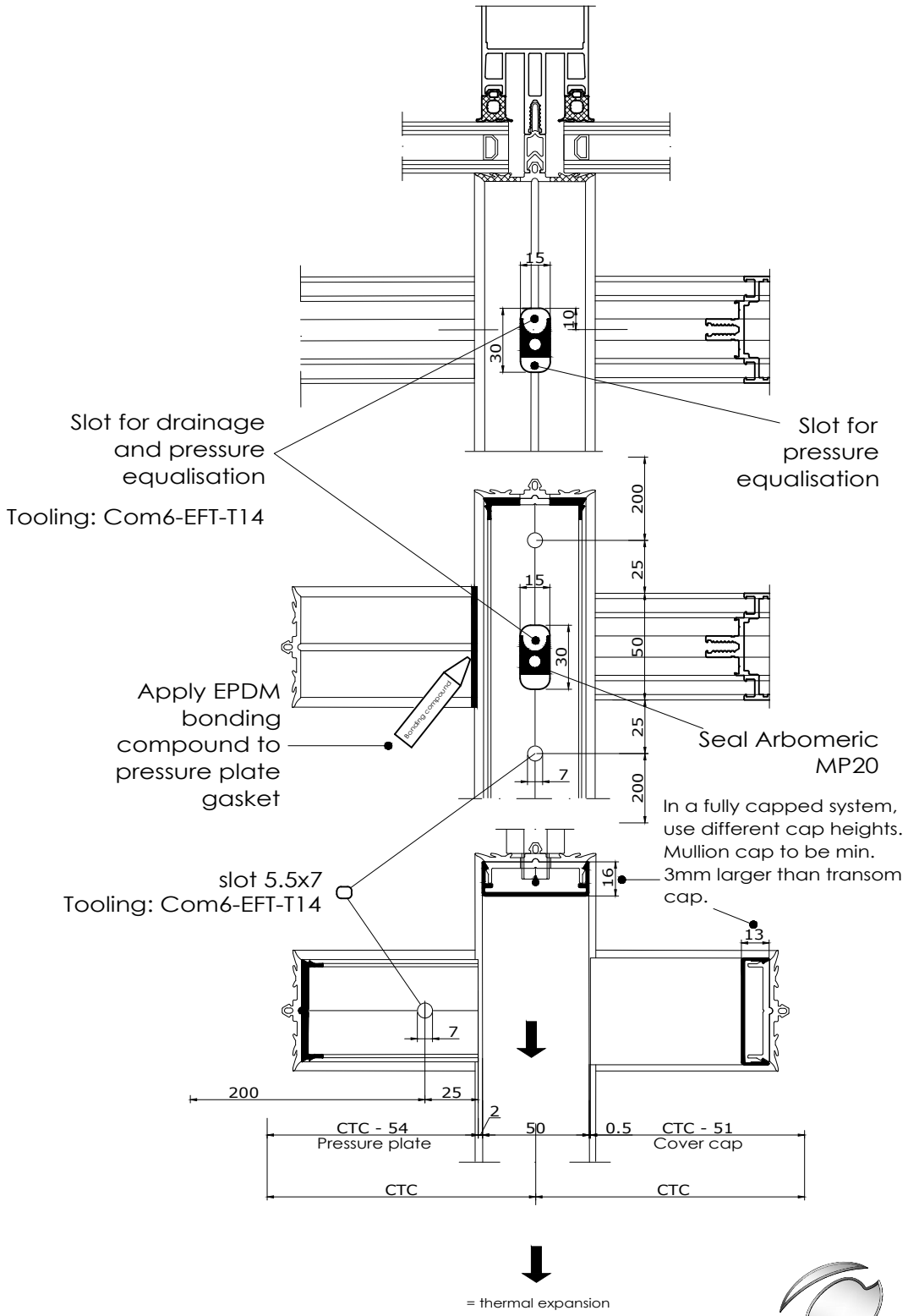

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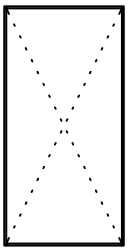
Draining horizontal



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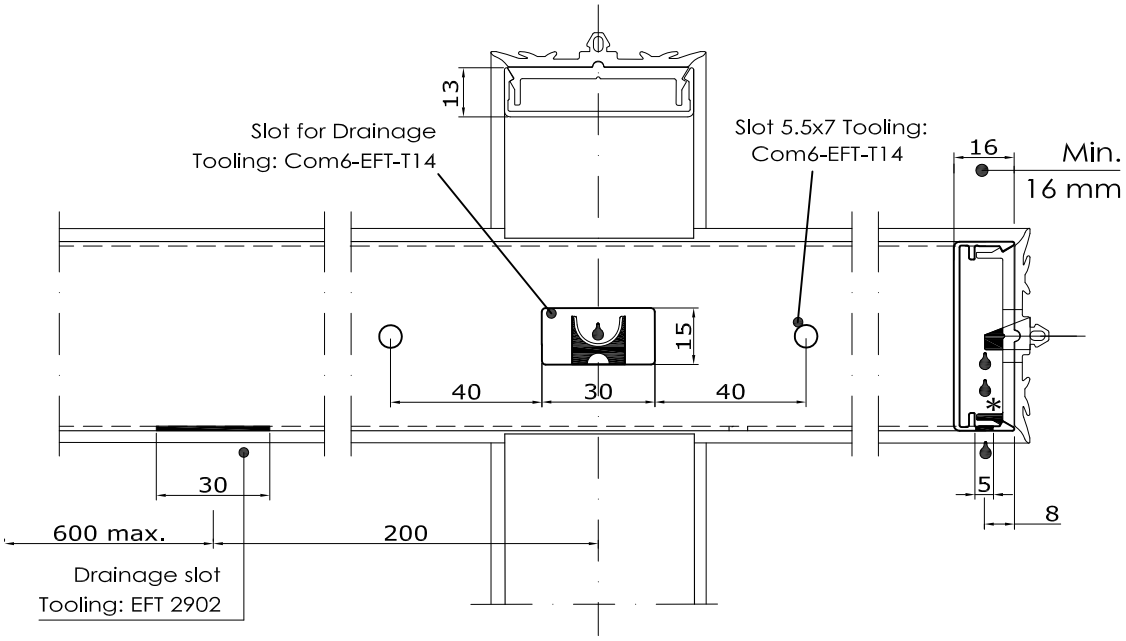

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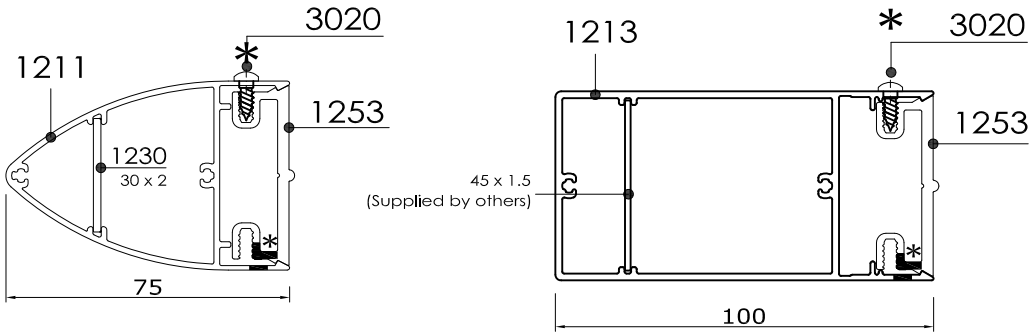
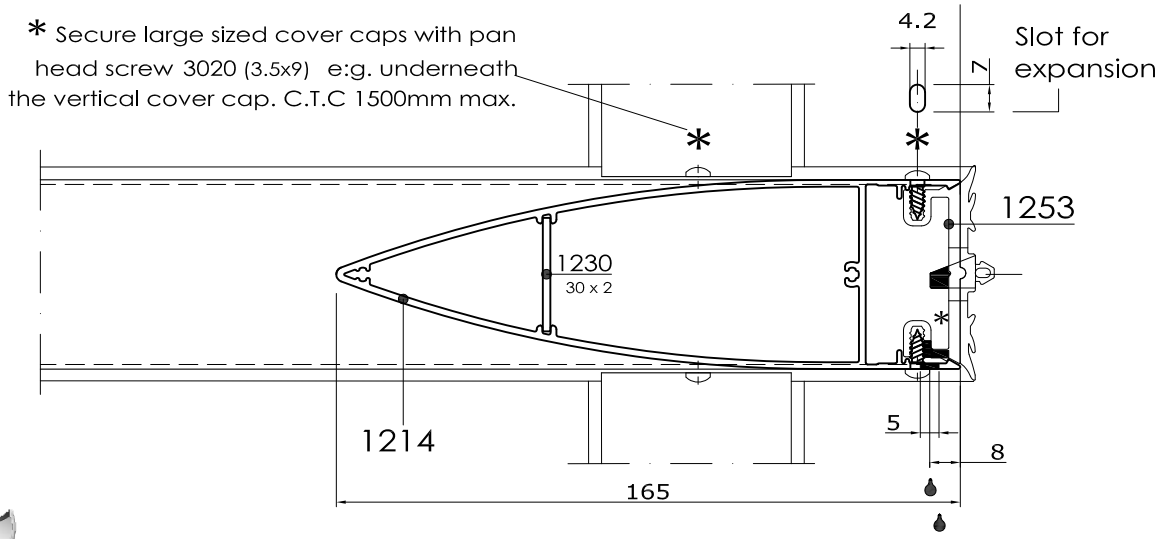
FIXING LARGE COVER CAPS





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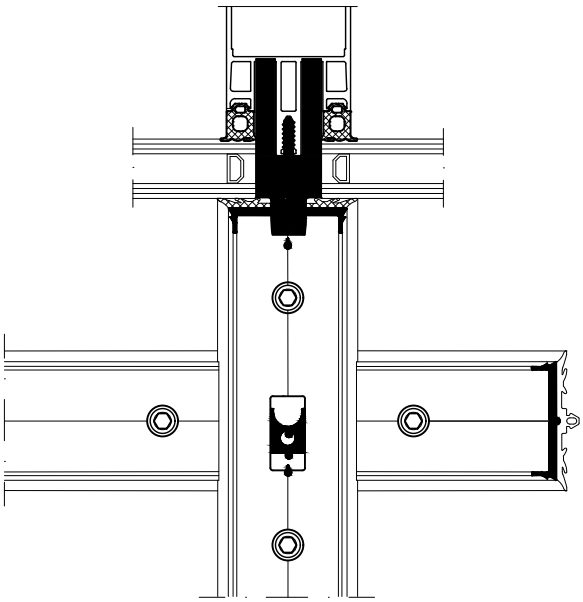
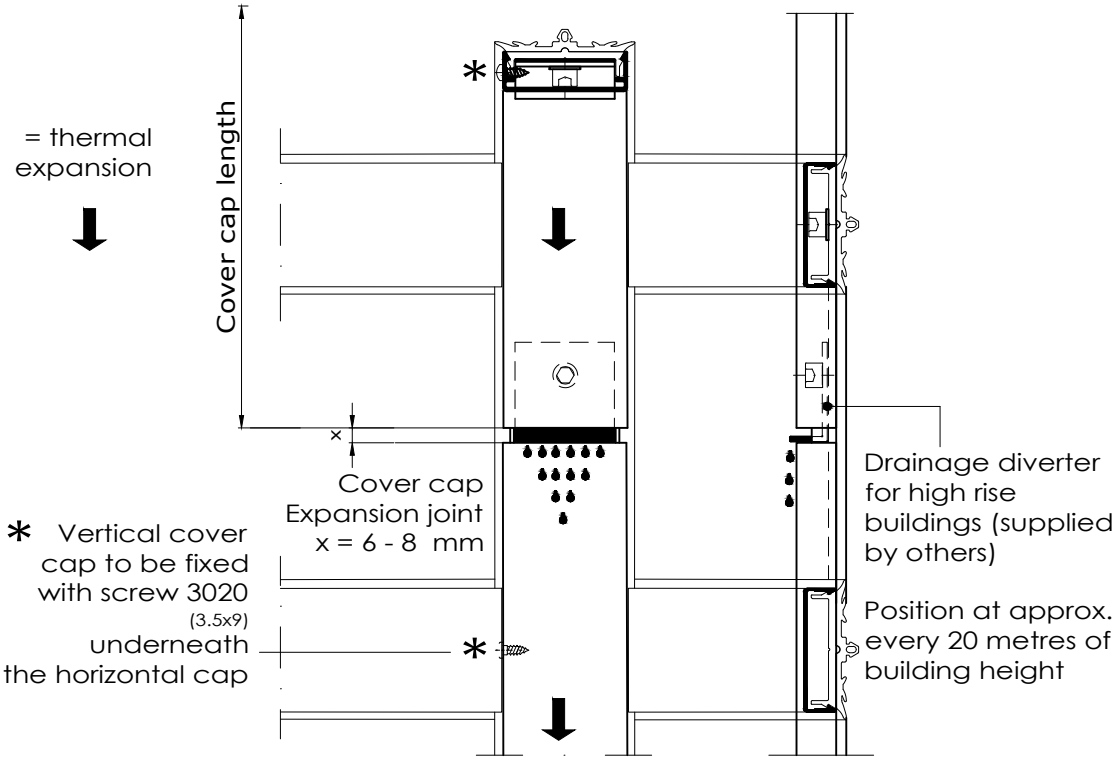
Draining large heights
Fixing vertical cover caps





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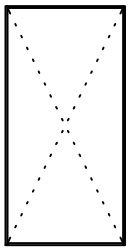
Silicone seal & bond breaker tape application



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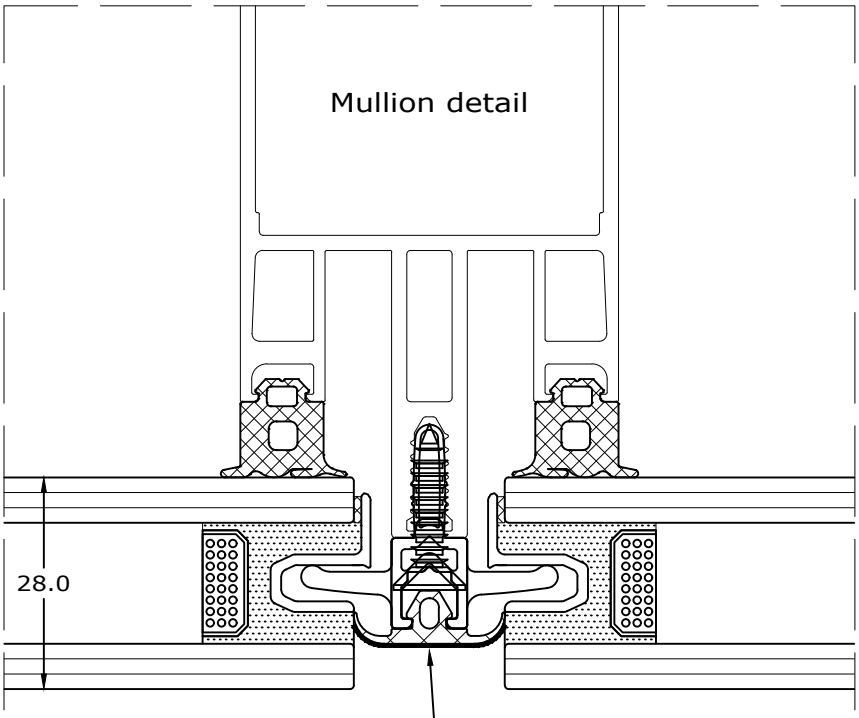
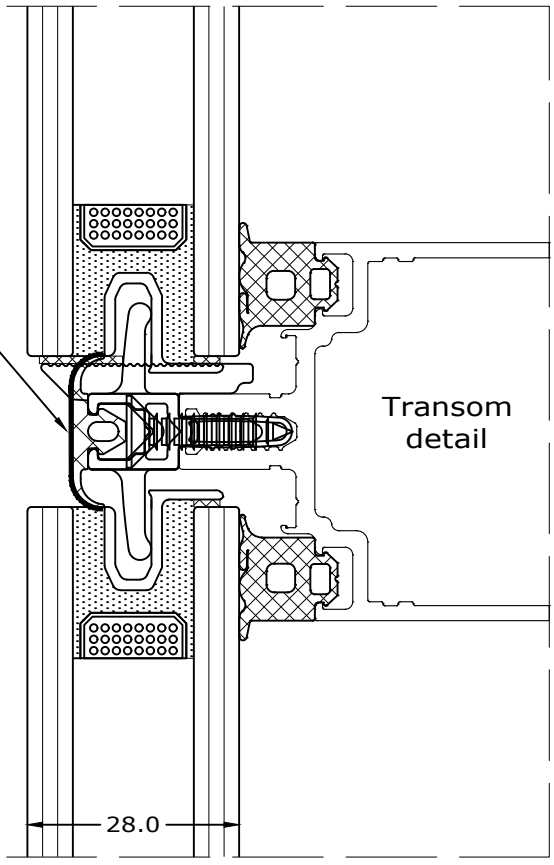


Any edge of gasket that will be exposed to external silicone seal must have bond breaker tape applied to its surface to prevent a three way seal



It is the silicone installers responsibility to supply and apply a suitable bond breaker tape and silicone seal.

A warranty on the silicone seal should be obtained from the silicone installer company.

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