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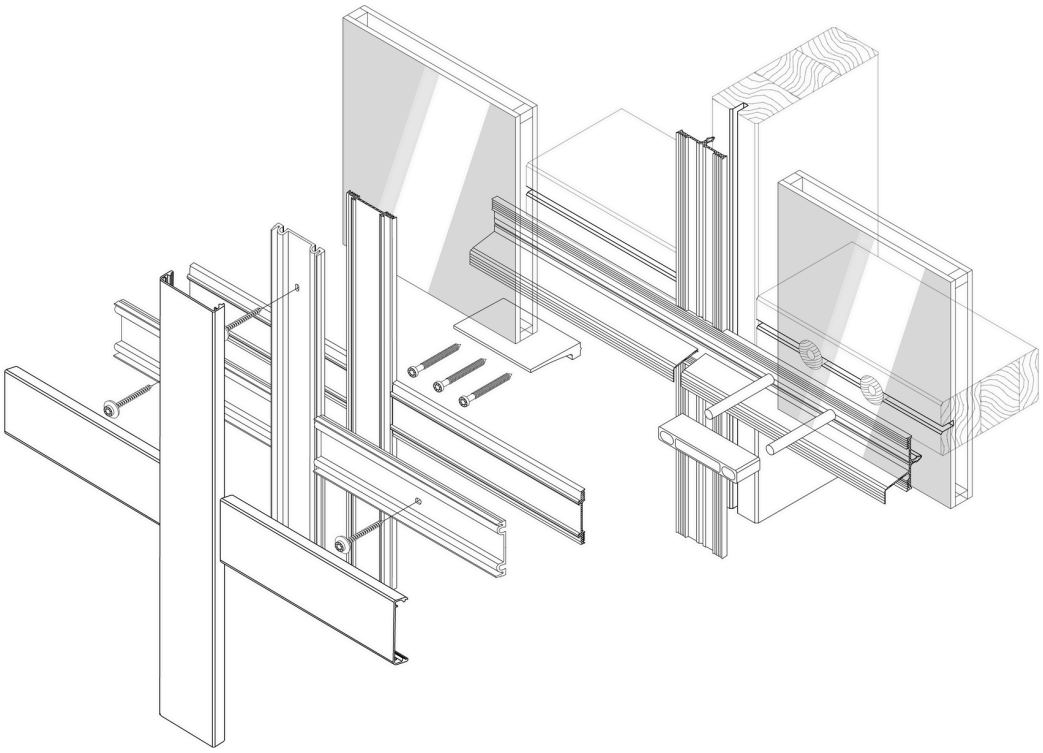
1 Preparation

1.1 System specifications



		Facade gasket height 5 mm	**Facade** inclination up to 20°, overlapping inner gaskets	**Roof** ≥ 2° inclination
System widths		50, 60, 80 mm	60 mm	60 mm
Air permeability EN 12152		AE	AE	AE
Water tightness EN12154 / EN 13050	static dynamic	RE 1650 Pa 250 Pa / 750 Pa	RE 1650 Pa 250 Pa / 750 Pa	RE 1350 Pa*
Resistance to wind EN 13116	permitted increased	2,0 kN/m2 3,0 kN/m2	2,0 kN/m2 3,0 kN/m2	2,0 kN/m2 3,0 kN/m2
Shock resistance		E5 / I5	E5 / I5	increased requirements according to Cahier 3228 du CSTB méthode d´essai de choc sur verrière weight 50 kg drop height 2,40 m
Glass weight		≤ 670 kg	≤ 670 kg	≤ 670 kg
Burglar resistance DIN EN 1627		RC 2	RC 2	

*the test was carried out using a water volume of 3.4 l/(m2min) - above the amount required by the standard

Thermal insulation

AVA H offers excellent thermal insulation - frame heat transfer coefficients (Uf) as low as 0.75 W/(m2K).

1.2 Wood selection and requirements

The wooden substructure supports the glazing and must meet all structural and suitability requirements. The wood choice is on the client, architect, or processor.

All wood materials comply with the current Eurocode 5 standard (DIN EN 1995-1).

Minimum requirements for all wood materials:

- Softwood, strength class C24
- Laminated timber, strength class GL24h

Comparable hardwoods can also be used.

Wood Type	Strength Class & Modulus of Elasticity ($E_{0,mean}$ [kN/cm²])
Spruce, Fir	C16 - 800
Pine, Larch	C24 - 1100
Douglas Fir, Southern Pine	C30 - 1200
Western Hemlock	C35 - 1300
Yellow Cedar	C40 - 1400
Oak, Teak, Keruing	D30 - 1100
Beech	D35 - 1200
Beech, Azalea, Intsia	D40 - 1300
Angelique (Basralocus)	D40 - 1300
Azobé (Bongossi)	D60 - 1700
Glued Laminated Timber (GLT)	C24 - GL24h - 1160
	C30 - GL28h - 1260
	C35 - GL32h - 1370
	C40 - GL36h - 1470
Laminated Veneer Lumber (LVL)	Kerto Q - 1000 - 1050
	Kerto S - 1380
	Kerto T - 1000
Multiplex Sheets (Plywood)	900 - 1600

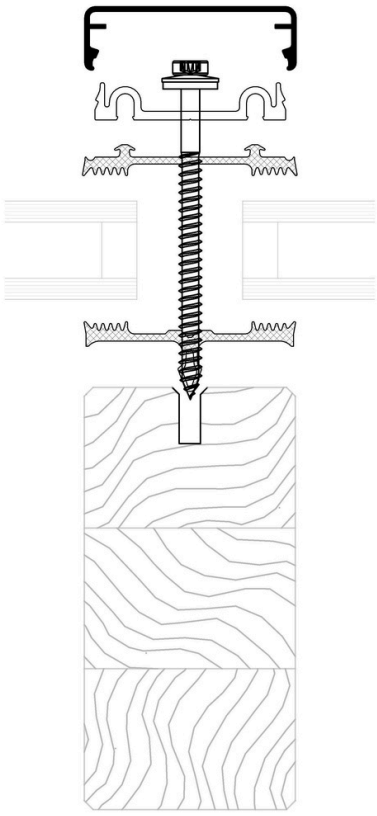
Confirm exact values with the supplier and applicable standards.

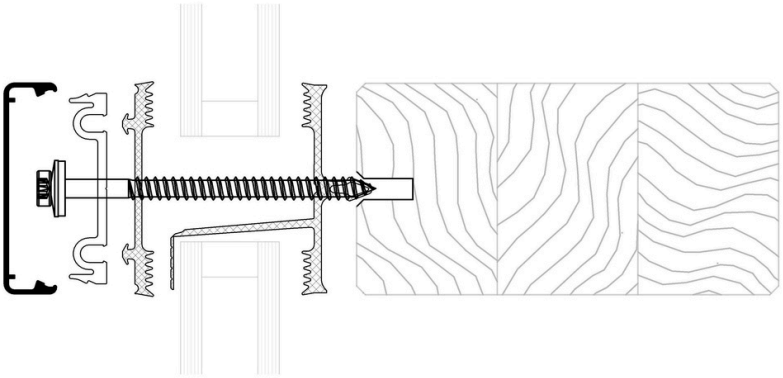
1.3 Profile design

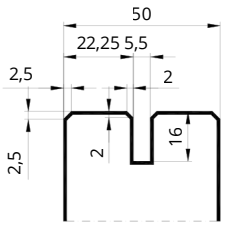
The inner gasket fits into the groove of the mullion and transom.

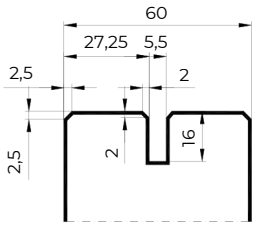
The outer gasket and pressure plate are screwed directly to the timber structure.

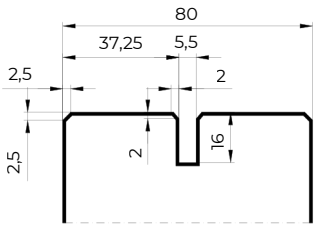
AVA H meets the highest technical and aesthetic standards.











The system can be found in 50, 60, 80 mm system widths.

Aluminium profiles

The aluminium profiles are made from EN AW 6060 and EN AW 6063 according to DIN EN573-3, T66 according to DIN EN 755-2.

Coating the aluminium

In addition to anodic oxidation, with pre-treatment, traditional coating techniques can be used - airdrying multi-layer coatings or thermosetting coatings. Discuss required actions with the coater.

Linear expansion of aluminium

Take into account the temperature-related linear expansion of the aluminium pressure plates and cover plates. Theoretical bar length ℓ to be reduced by:
$\Delta\ell = \alpha T \cdot \Delta T \cdot \ell$

Shorten the pressure plate by ≈ 2.5 mm per bar ℓ = 1000 mm. Ensure the correct length of the outer gaskets.

Use a diameter of d = 9 mm for the holes to screw the pressure plates with visible screw connection in the roof area.

Thermal expansion parameters

αT ≈ 24 · 10-6 1/K
coefficient of thermal expansion for aluminium
T = 40 K
assumed temperature difference of aluminium depending on colour and solar radiation
ℓ = 1000 mm rod length
Δℓ ≈ 1 mm longitudinal/linear expansion

Linear expansion

ℓ = 1000 mm Δ ℓ = 1 mm at 40°C

Expansion references

Rod length ℓ (mm)	Temperature difference ΔT	Linear expansion Δℓ (mm)
1000	40°C	1
3000	40°C	3
1000	60°C	1.5
3000	60°C	4.5
1000	100°C	2.5
3000	100°C	7.5

Gaskets

AVAVERA gaskets are EPDM-based natural rubber and meet DIN 7863 for gasket profiles in windows and facades. Processor tests compatibility with contact media, particularly when using plastic glazing or non-AVAVERA products.

Weatherproof silicone

Use only tested sealants to seal the rebate area with weather silicone. Follow manufacturer´s instructions and have trained personnel do the grouting. Certified specialist company would be the best choice. Refer to DIN 52460 and the IVD data sheets (Industrial Association for Sealants).

Ensure material compatibility, especially the glass edge seal and the backfilling of joints. Confirm compatibility in advance, in the case of self-cleaning glass.

Standards compliance

DIN7863	Elastomer seals
DIN52460	Sealing for glazing
IVDsheets	Industrial guidelines
WP.01-05	Window&Facade Association

UV-resistance

Use highly elastic, weatherproof, UV-resistant sealants for a reliable joint. See UV resistance details with the manufacturer. Silicone sealants are the best for UV resistance, polysulphide are ideal for volatile argon fillings.

All system items are produced according to applicable standards.
See information sheets WP.01 - WP.05 from the Association of Window and Facade Producers (VFF).

Maintenance checklist

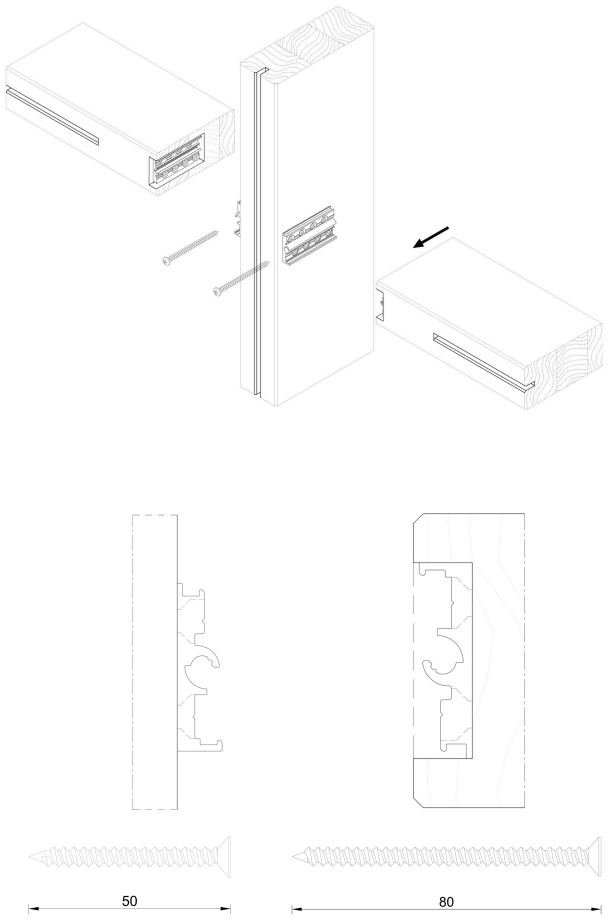
- Inspect all gaskets regularly for proper fit.
- Check for damage or wear on weather seals.
- Clean rebate area from debris.
- Verify proper installation of glass edge seals.
- Confirm compatibility when replacing the components.

2 Structure Assembly

2.1 Mullion transom connection

- Attach the connector parts to the mullion and transom, insert the transom to connect them. Secure the joint in all directions with a connecting screw.
- Notch the clamping foot of the transom inner gasket at the mullion-transom connection.
- Install the transom connector screws, avoid collision with pressure plate screws and glass support screws.
- Ensure that the centre groove in the transom begins approximately 80 mm from the transom end.
- Insert the transom from the inside to the outside.
- Place the front edge of the connector 6 mm behind the front edge of the mullion and transom. For hardwood or when placed close to the edge of the wood, pre-drill with Ø 3 mm.
- Mill a 12 - 12,5 mm deep recess on the front edge of the transom.

Milling dimensions: width x length x depth
40 x (connector length + 6) x 12-12.5 (mm)



mullion assembly transom assembly

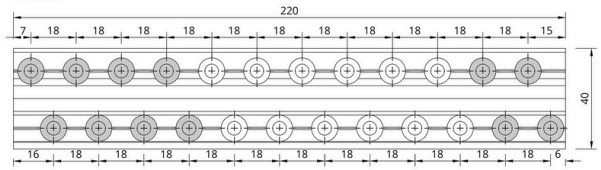
Place the mullion transom connectors as described.

The load-bearing capacity and suitability must be statically verified on site.

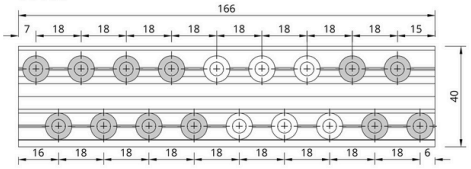
2.2 Mullion transom connection types

Transom connector types differ from each other in terms of their length and load-bearing capacity. The number of screws varies depending on the connector type and screw connection variant.

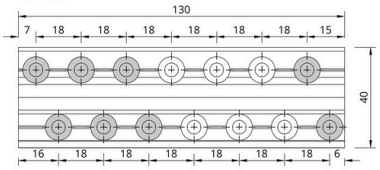
T8220



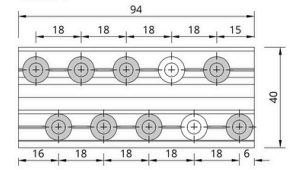
T8166



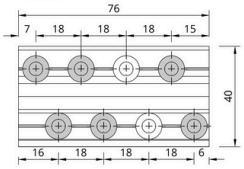
T8130



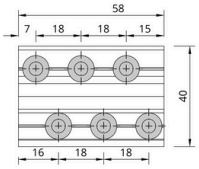
T8094



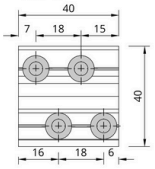
T8076



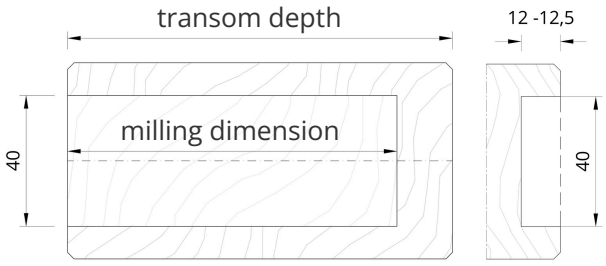
T8058



T8040



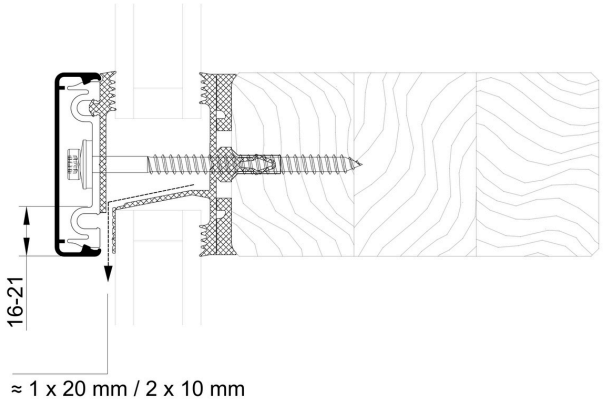
	Transom depth R (mm)	Milling dimension L (mm)
T8040	55-73	46
T8058	74-91	64
T8076	92-109	82
T8094	110-145	100
T8130	146-181	136
T8166	182-235	172
T8220	236-300	226



Vapour pressure equalisation in a mullion-transom facade is usually achieved through openings at the base, head and ridge.

The vapour pressure equalisation openings also help remove moisture. The inner gasket allows moisture to drain downwards. In facades, water flows into the mullion through the transom flap. Tested sealing systems with 1 or 2 drainage levels can be used.

In sloped glazing with 2 drainage levels, the higher transom gasket overlaps the lower mullion/rafter gaskets. The moisture drains outside through the water-bearing level of the structure. Foils are placed under gaskets and kept in place permanently.

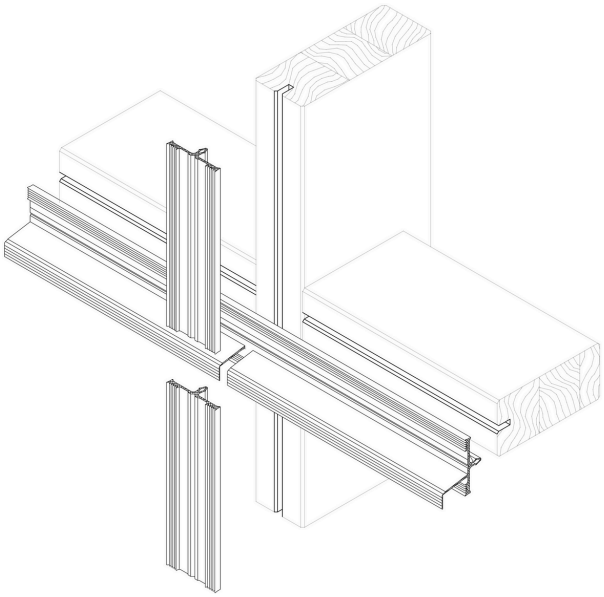


When the transom length is ≥ 2,00 m, notch the lower sealing lips of the outer gasket (opening approx. 20 mm) for additional ventilation.

3 Inner Gasket Installation

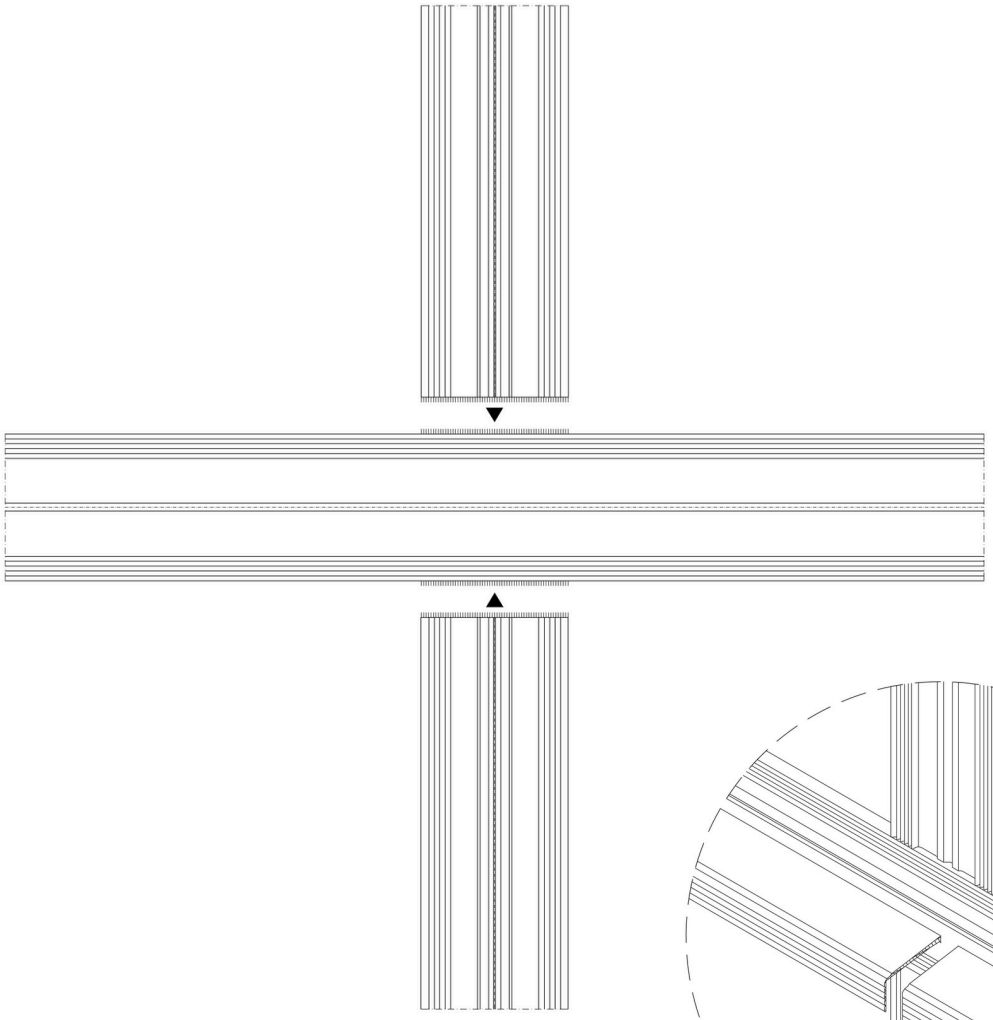
3.1 Inner gasket 5 mm

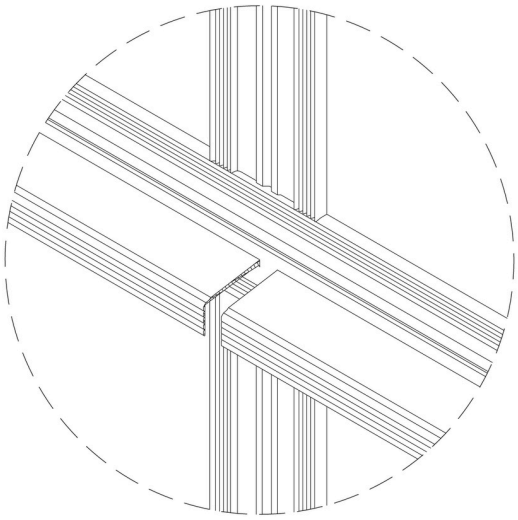
- Lay the horizontal transom gaskets continuously.
- At the mullion-transom joint, notch the clamping feet of the transom gasket over the length of the mullion width. Use AVAVERA notching pliers.
- For T-connectors, notch the clamping foot of the transom gasket over 80 mm per transom end (see “Mullion-transom connection”).
- Butt the mullion gaskets against the transom gaskets.
- Use AVAVERA paste Z0094 for all gasket joints.
- Notch the transom gasket flaps at the mullion joint over a width of 10 mm to 15 mm.
- Remove the protruding transom flap at the perforation after glazing.
- Insert the inner transom gaskets into the notched mullion gaskets at the edge for proper drainage.



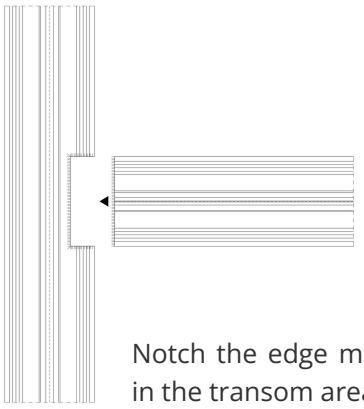
3 Inner Gasket Installation

3.1 Inner gasket 5 mm





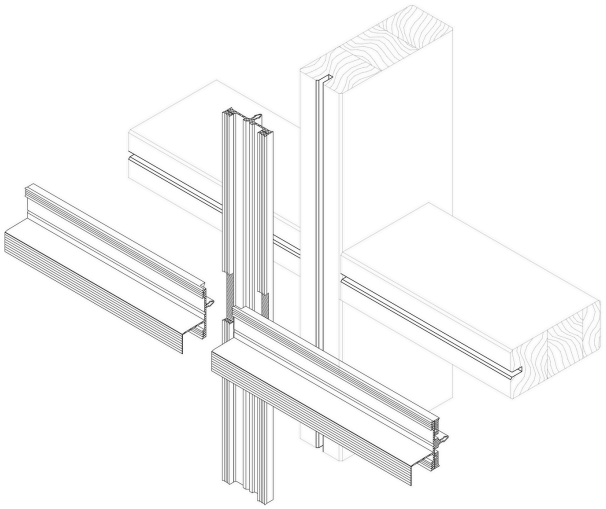
Make sure that the transom flap always covers the inset of the infill elements.



Notch the edge mullion seal in the transom area.

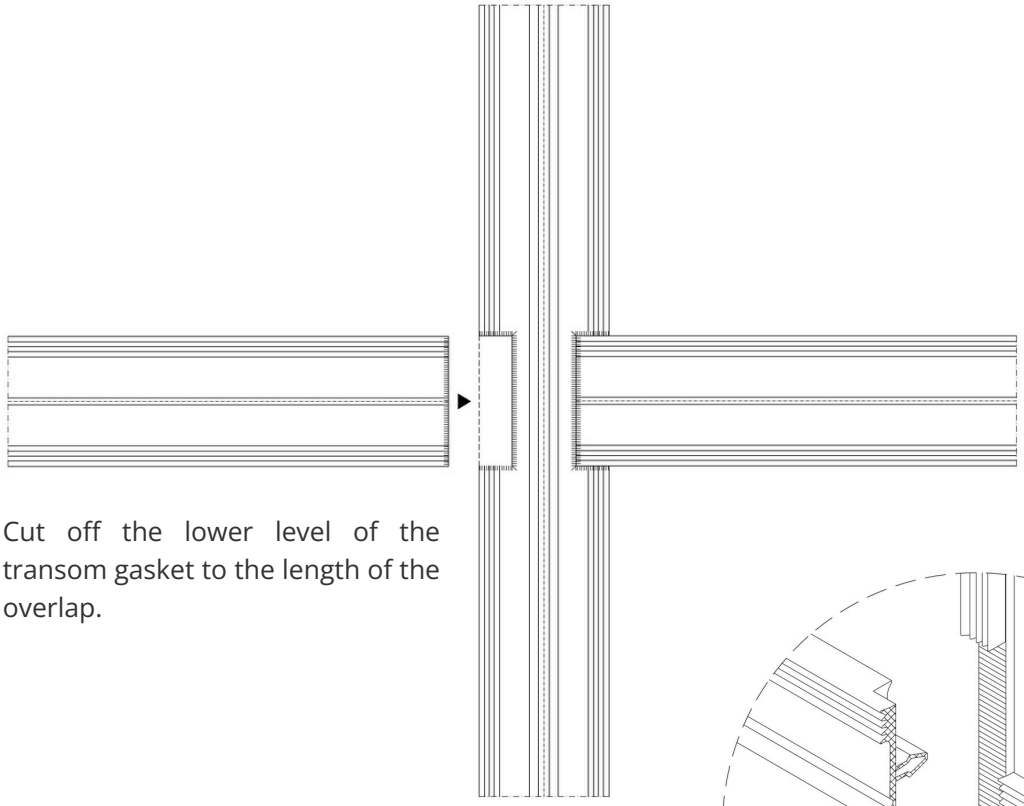
3.2 Inner gasket 10 mm

- Divide the height of 10 mm high gaskets for easier overlapping at the mullion-transom joint.
- Install the vertical mullion gaskets (2nd drainage level) continuously.
- Clip the transom gaskets into the mullion gaskets in an overlapping manner.
- Use AVAVERA paste Z0094 for all gasket joints.
- The transom gasket flap (1st drainage level) drains moisture into the mullions.
- The transom flap must cover the inset of the glass panes and filling elements.
- Remove the protruding transom flap at the perforation after glazing.

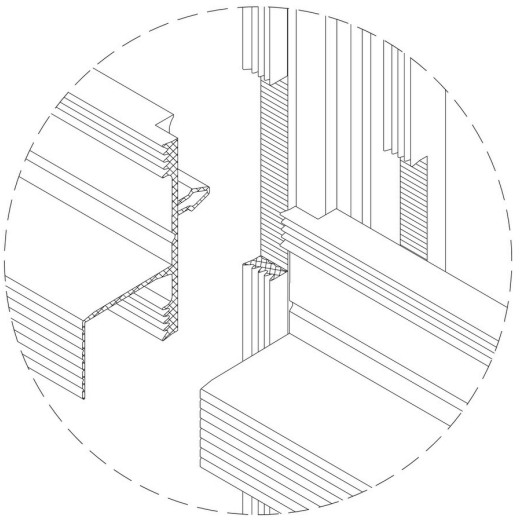


3.2 Inner gasket 10 mm

Cut off the upper level of the mullion gasket in the transom area to the width of the transom gasket.



Cut off the lower level of the transom gasket to the length of the overlap.



Make sure that the transom flap always covers the inset ‘e’ of the infill elements (e.g. glass panes, panels).

Glass supports are chosen based on wood and glass specifications.

Install the glass supports following industry guidelines and the Institute for Window Technology standards.

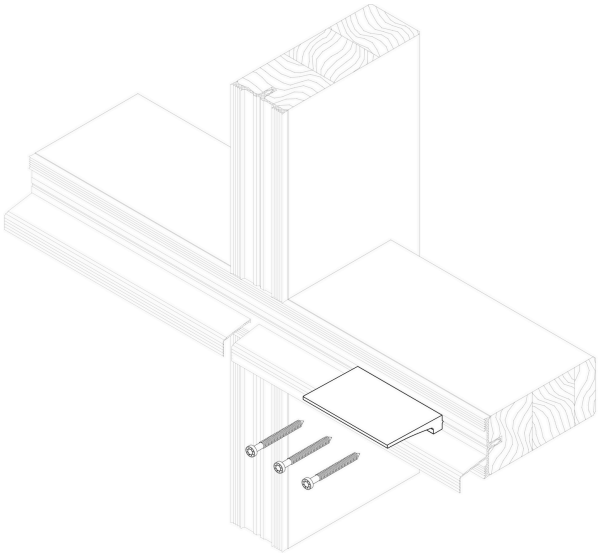
Glazing blocks must align with the edge bond of insulating glass, be durable and allow vapor pressure equalization and condensate drainage. They must also tolerate minor adjustments.

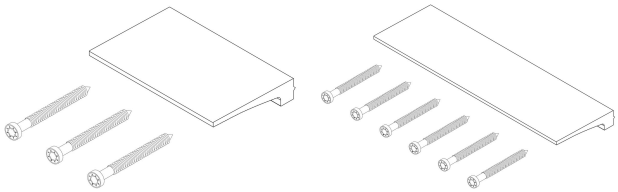
Increasing the glass inset improves the frame´s heat transfer coefficient (Uf).

Commonly used:

AVA H50	12 - 15 mm glass inset
AVA H60	15 - 20 mm glass inset
AVA H80	20 mm glass inset

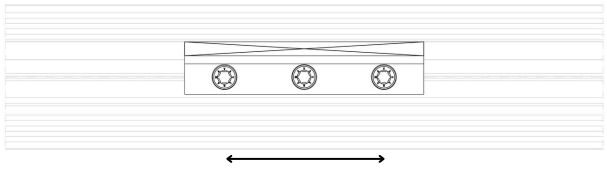
4.1 Installation of G4100 and G4200



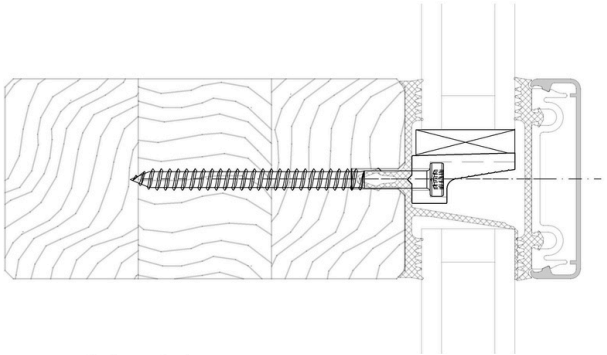


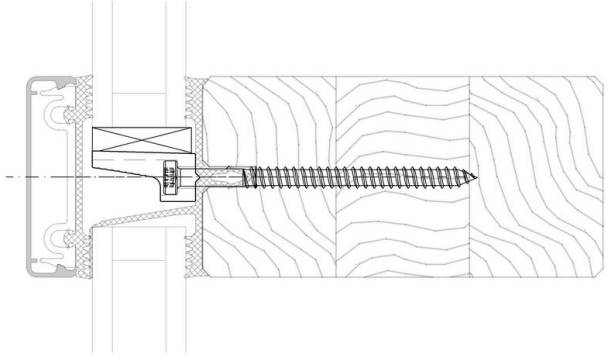
G4100
width 101 mm

G4200
width 206 mm



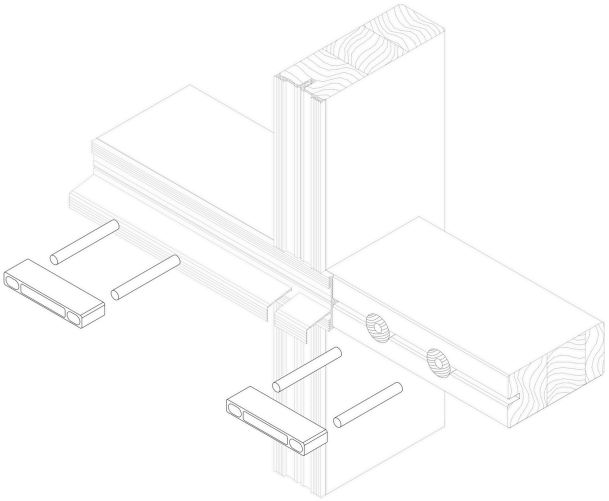
70 mm

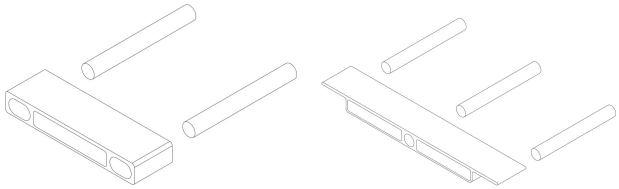




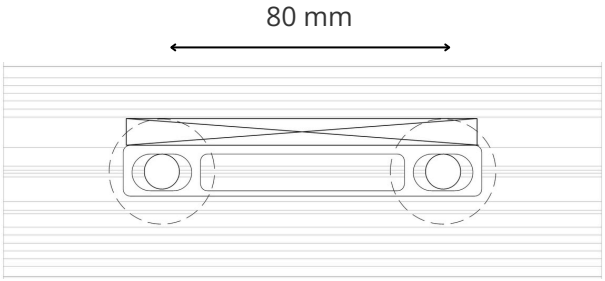
- Use only with 5 mm high inner seal.
- Place the glass supports 100 mm from the transom end to prevent any collision with the pressure plate screw connection.
- Screw directly into the transom, 35 mm apart, after pre-drilling holes Ø 3,5 - 5 mm (depending on wood type).
- Ensure that the screws are perpendicular to the transom.
- Cut the glass supports to match glass thickness.
- Place glazing blocks under the glass along the entire width of the supports.

4.2 Installation of G7000 and G8000

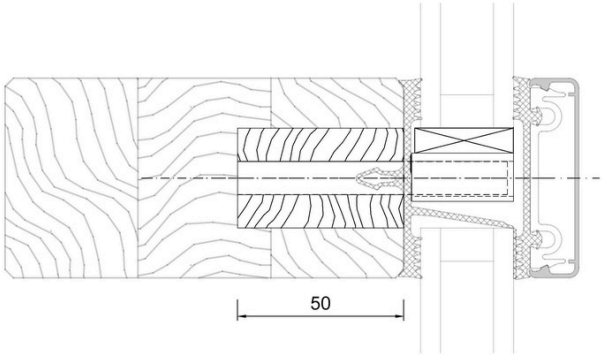


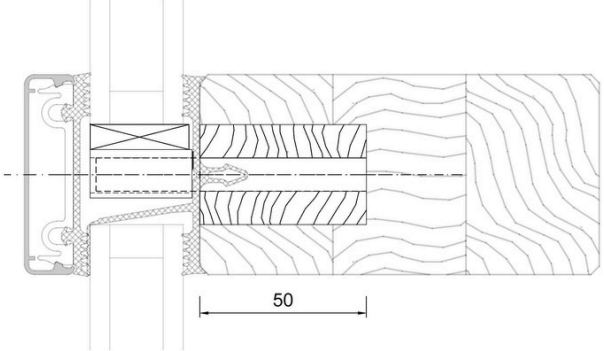


G7000 G8000



bolt Ø 10 mm
hardwood cylinder inside Ø 10 mm
outside Ø 30 mm





- Adjust the bolt length to match glass thickness.
- Glue wooden cylinders (50 mm length, 30 mm width, 10 mm hole) into the transoms to secure the bolts.
- Drill 50 mm deep, 30 mm wide holes, 80 mm apart.
- Hammer bolts into the entire 50 mm cylinder depth.
- Press the glass support G7000 or G8000 onto the bolts.
- Avoid grooving the hardwood cylinders. Remove the sealing base in the area of cylinders.
- Place glazing blocks under the glass along the entire width of the supports.

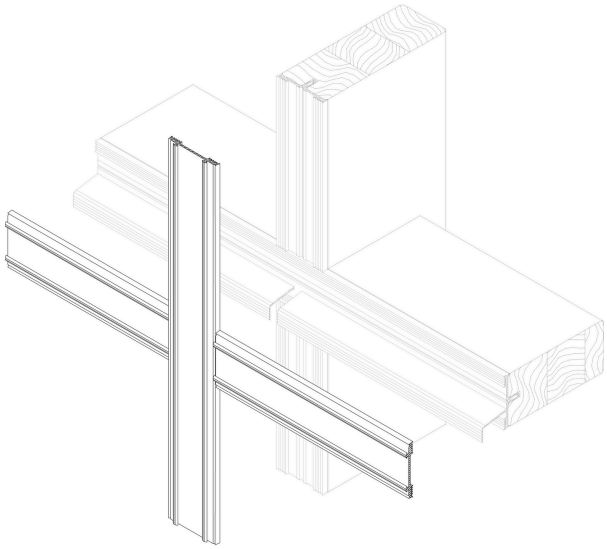
4.3 Installation of outer gaskets

Outer sealing
- holds the glass in place
- protects the rebate from moisture

Ensure that the outer gasket level is tight, apart from the openings for vapor pressure equalization and condensate drainage.

Sealing lips of different heights on the outer gasket compensate for the height difference caused by the transom flap.

Split gaskets of different heights balance filling elements up to 6 mm.



mullion outer gasket continuous
transom outer gasket butted

- Install the gaskets flush with a slight oversize, considering the system situation.

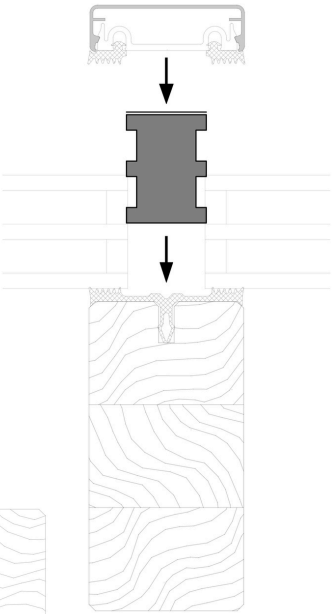
- Cut the transom flap at the tear-off grooves to match the glass thickness so that it is concealed under the outer gasket.

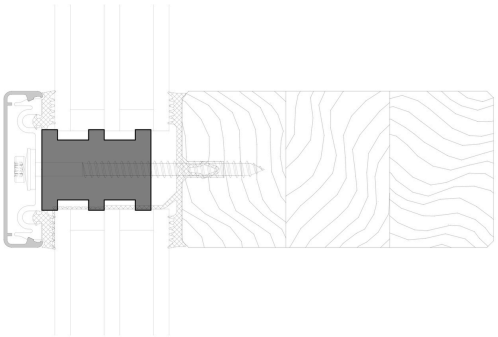
Using slab insulation

Insulation blocks come with a permanent HOTMELT adhesive.

Glue the block directly to the pressure plate or place it in the rebate space and press into position.

Always use 2-piece outer gaskets with slab insulation blocks.





Insulation block	Width (rebate)	Height (insulation block)	Glass thickness
Z2042	20 mm	42 mm	≥ 44 mm
Z2026	20 mm	26 mm	≥ 28 mm
Z3042	30 mm	42 mm	≥ 44 mm
Z3026	30 mm	26 mm	≥ 28 mm

4.4 Installation of pressure plates and cover plates

- Fix the pressure plates to the wooden profile using AVAVERA stainless steel system screws, meeting DIN EN 10088 standards. The screw connection type determines the use of 4 mm high vulcanized EPDM sealing washers.

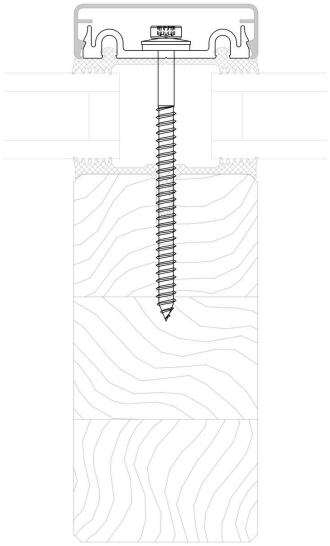
- Distance the screws max. a = 250 mm.

- Make sure the edge distance of the first screw is 30 mm ≤ a ≤ 80 mm.

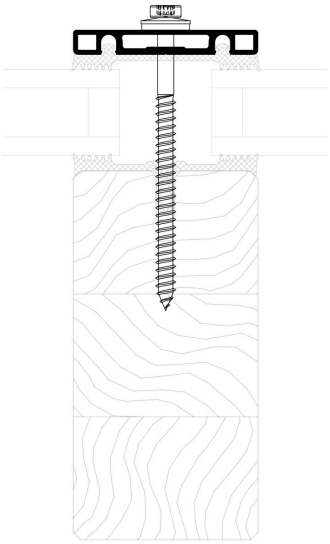
The clamp connection only experiences tensile stress. The allowed tensile force is determined by the general building inspectorate approvals or Eurocode 5 (DIN EN 1995-2).

- Use a standard drill driver with a depth stop for the screw connection. Set the depth to compress the gasket by 1,5 - 1,8 mm.

A drill driver with adjustable torque can be an alternative. Required torque is around 5Nm and may vary due to wood material and screw-in depth differences. Test the setting and compression on a sample first.



concealed screw connection

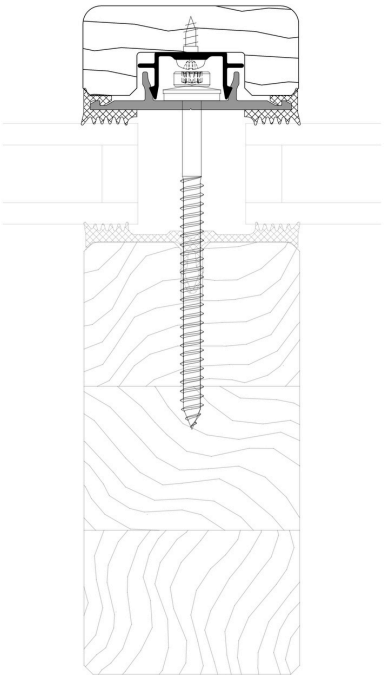


visible screw connection

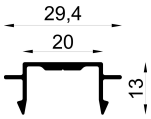
4.4 Installation of pressure plates and cover plates

Wooden cover plates

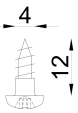
- Screw the pressure plate with two-piece outer gasket D1908 to the system.
- Attach the cover plate C1908 (80 mm long) app. every 300 mm along the centre of the wooden cover plate using 3 screws. Timber and screws are provided by the customer.
- Clip it onto the pressure plate.
- Make sure the fixing screws are offset. So that they do not collide with the pressure plate system screws.
- Additional fastening may be needed over time due to the natural properties of wood.



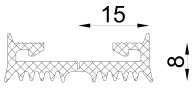
C1908



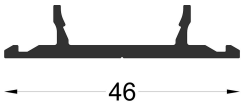
provided by the customer



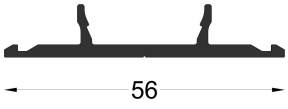
D1908



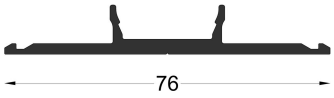
U5003

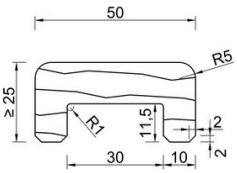


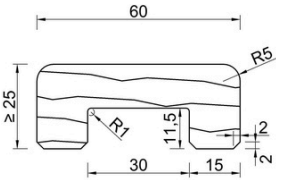
U6003

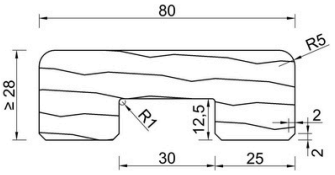


U8003

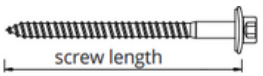








4.5 Calculation of screw length



	System width 50 / 60 mm		System width 80 mm		
	S0014	3 mm	S0014	3 mm	
	S0011 (*)	1,5 mm	S0011 (*)	1,5 mm	〉 mm
	P6059 (*)	(2,5) 8 mm			
	P6067 (*)	(1,5) 6 mm			
	U5009 / U6009	2,5 mm	U8009	3,5 mm	
	U5003 / U6003	2,5 mm	U8003	3,5 mm	+
	D5050		D8050	5 mm	
	D6050	5 mm			
	D6054				
3°-15°	D1925	5 mm	D1925	5 mm	〉 mm
	D1928		D1928		
	D1934	4 mm	D1936	6 mm	
	D1938	8 mm	D1940	10 mm	+
	D1908	4 mm	D1908	4 mm	
	Glass thickness				〉 mm
	D5202	5 mm	D8202	5 mm	+
	D6202		D8204		〉 mm
	D6206	10 mm			
	D6207				+
16	Centre groove + effective screw-in depth e (e = 30 mm statically sufficient for many static applications)				〉 16 mm + e
					=

(*) Use PA washers for visibly countersunk screw connections.
The mm specifications in () are decisive for calculating the screw length.

screw length in mm

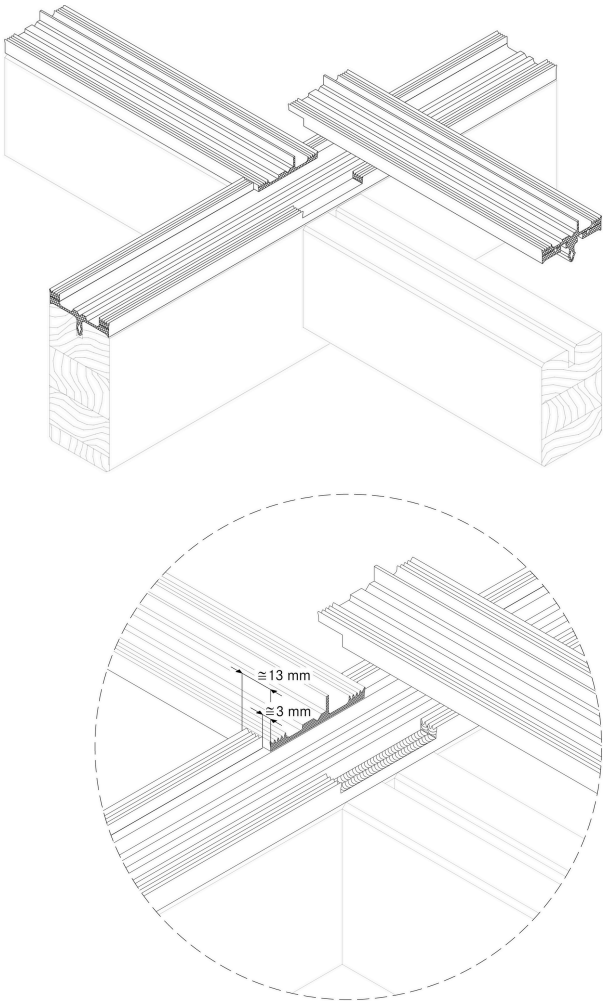
(round up the result to the nearest ten)

5.1 Installation of inner gaskets

For roof glazing, a special gasket design allows stepped drainage in 2 levels, with 10 mm high gaskets laid overlapping.

Transom gaskets are designed to create a condensate channel that drains into the rafters at the overlap.

- Divide the height of 10 mm high gaskets to allow easy overlap at critical transom joints.
- Lay the transom gaskets continuously.
- Seal all gasket joints.
- On the transom gasket, remove the lower perforated part and the clamping foot to approx. 15 mm.
- Remove the upper perforated part of the rafter gasket.
- Coat contact surfaces with AVAVERA paste Z0094 before inserting the gaskets. Avoid unevenness in the glass support surface.



transom gasket length = transom length + ~ 13 mm on each side

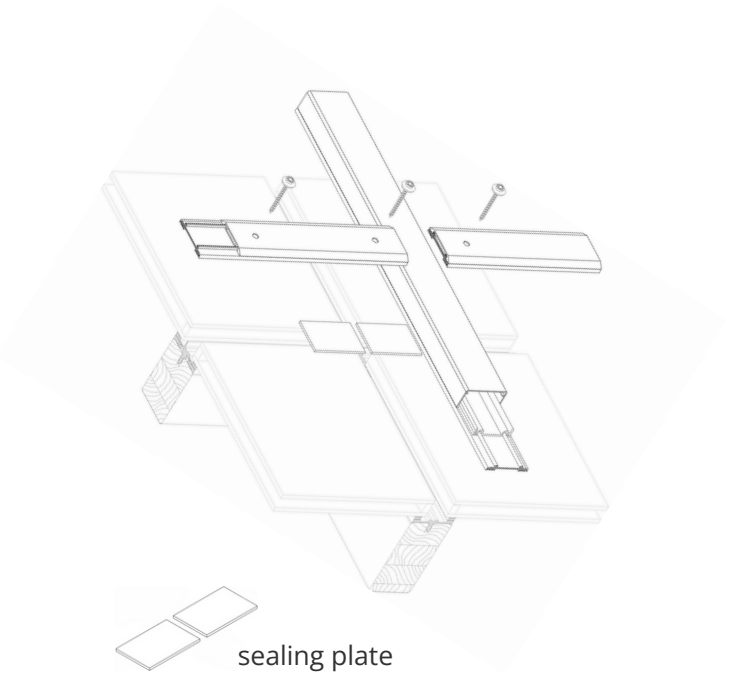
5.2 Installation of outer gaskets EPDM

Vertical glazing installation principle applies.

- Do not use split gaskets for transom sealing in the roof. Use split gaskets in rafters only with an insulation block. Check for tightness.
- Install self-adhesive sealing plates for the intersection joints. Glue these plates to the outside of glass edges, parallel to the rafter axis.
- Do not use butyl tapes as continuous sealing tapes between glass and outer gaskets.
- Lay rafter gaskets continuously and transom gaskets butted.
- Install gasket joints flush with a slight oversize.

Note

- Horizontal pressure plates block rainwater and dirt flow.
- Use cover plates and pressure plates with sloping edges to reduce water build-up in front of the aluminium profile.
- Shorten the cover plates and pressure plates of the transoms by 5 mm in the joint area for better drainage.
- Fit gasket joints flush with a slight oversize.
- Seal the open ends of the transom aluminium profiles.

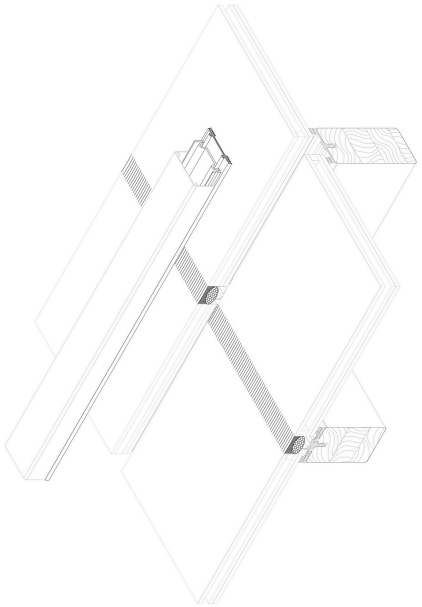


- Glue the sealing plates in the centre of the transom axis.
- For 15 mm glass insets, start the first transom pressure plate screw 50 mm from the profile end.

5.3 Installation of outer gaskets silicone

Vertical glazing installation principle applies.

The outer gasket in the rafter area is designed like a standard roof with a slope up to 15°.



- Use split gaskets in rafters only with an insulation block. Check for tightness.
- In roofs with a ≥ 2° slope, avoid pressure plates in the transoms for proper drainage. Seal the rebate spaces with weatherproof silicone.
- Use only tested sealants for transom rebates.
- Install an outer sealing level with pressure profiles at the high point or ridge area of the sloped glazing.

Note

Consider the expansion factor of aluminium profiles in the roof area due to high heat absorption.

Use single-piece pressure plates with caution. If used, drill Ø 9 mm holes for screws.

For larger spans and rafters, use concealed screw connections for pressure plates. Seal unused holes.

In roof areas where materials with different expansion coefficients meet, like eaves, install aluminium sheets with expansion joints to prevent cracking.

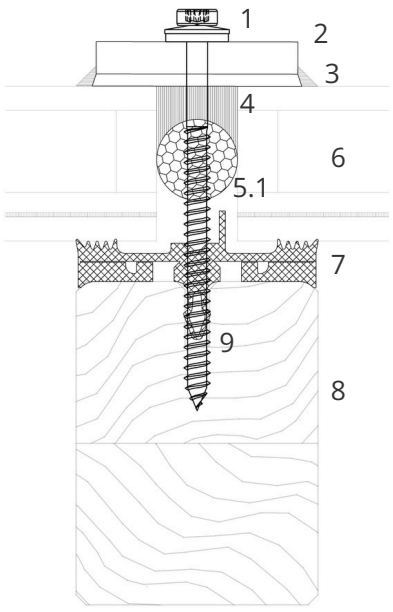
5.3 Installation of outer gaskets silicone

- Use highly elastic, weatherproof, UV-resistant sealants for a reliable joint. See UV resistance details with the manufacturer. Silicone sealants are the best for UV resistance, polysulphide are ideal for volatile argon fillings.

- If silicone joint has no additional mechanical fastening, support the glass at certain points with hold-down clamps.

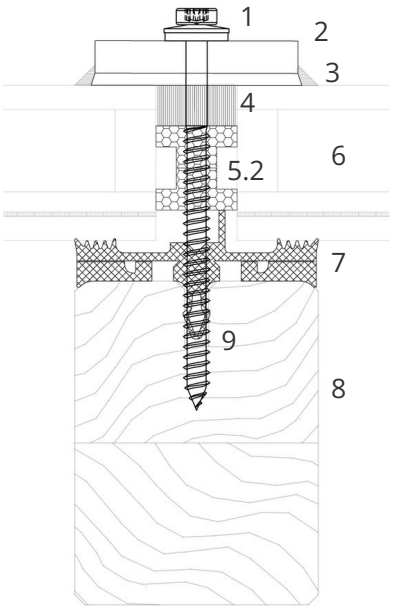
- The hold-down clamps are stainless steel with silicone washers, screwed like pressure plates. Seal them with silicone sealant. Design depends on glass dimensions.

Transom sloped glazing ≥ 2° inclination with weatherproof silicone and round section rope seal



1 hold-down clamp
2 silicone washer
3 silicone sealant / seal around the clamp
4 weatherproof silicone seal
5.1 round section rope seal

Transom sloped glazing ≥ 2° inclination with weatherproof silicone and slab insulation

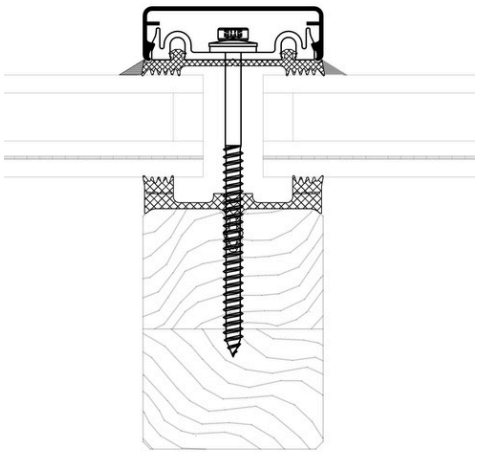


5.2 slab insulation
6 glass / filling element
7 inner gasket 10 mm transom
8 timber profile
9 system screw fittings

5.3 Installation of outer gaskets silicone

- Use PE round cords or AVAVERA slab insulation blocks as backfill material.
- Apply silicone sealant before placing rafter gaskets and pressure plates/cover plates.
- Once the silicone cures, seal and screw in the rafters.
- Seal the mullion-transom joints.
- Ensure that the transom area joint is fully cured before applying the second layer.

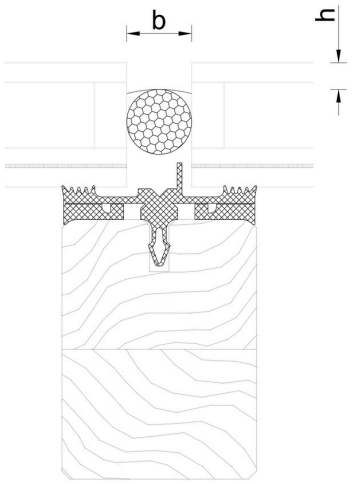
Rafter with pressure plate



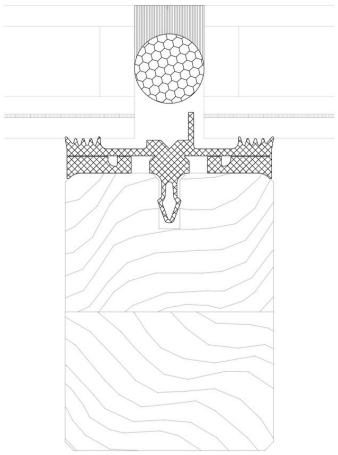
5.3 Installation of outer gaskets silicone

Joint design width x height = 20 mm x 10 mm

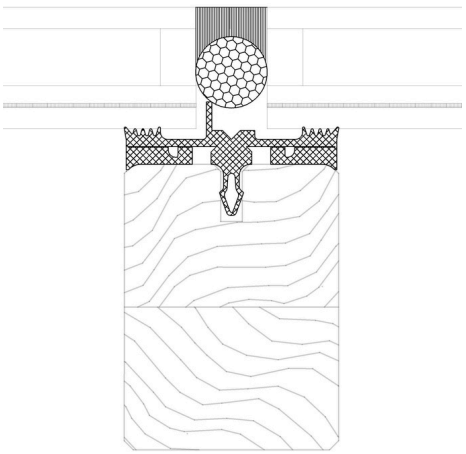
b : h = 2 : 1- 3.5 : 1
Check and adjust if needed.



Transom with weatherproof silicone seal + round section rope seal

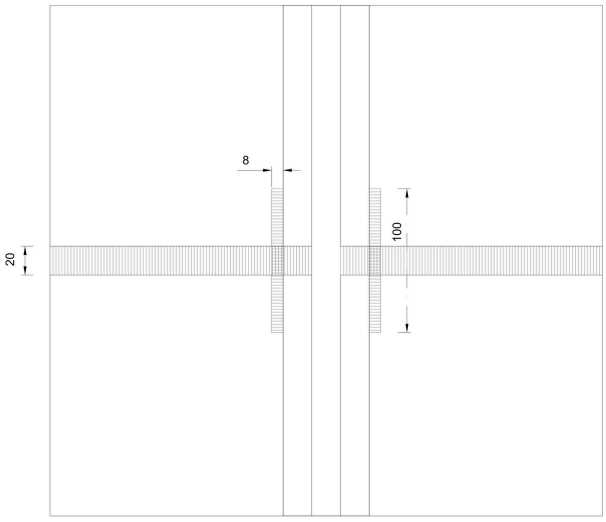


Transom with weatherproof silicone and round section rope seal



5.3 Installation of outer gaskets silicone

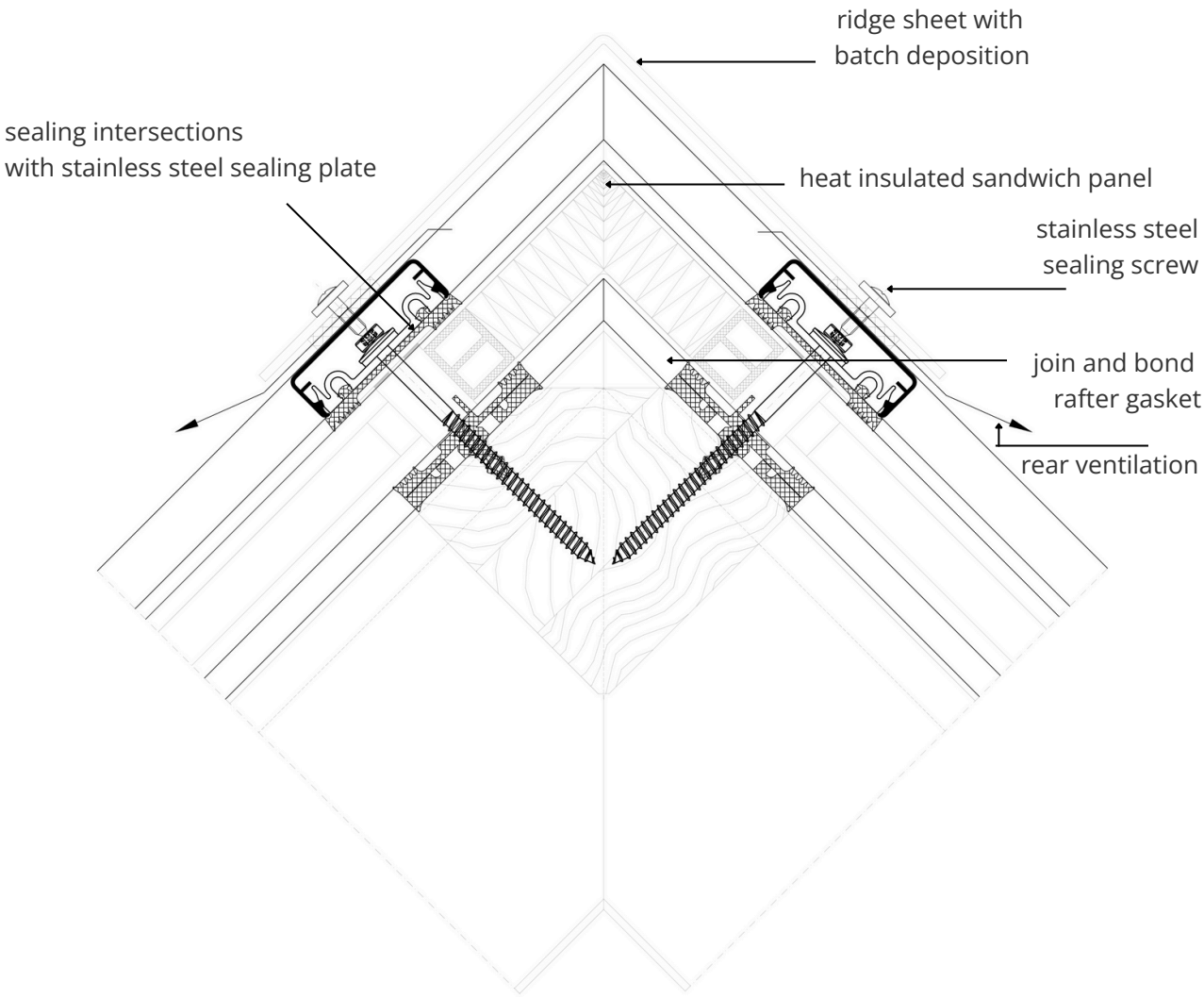
- Check silicone sealant and contact surfaces for compatibility.
- Clean the surfaces according to manufacturer instructions.
- Fill the joints only with non-water absorbent, closed-cell PE profiles to avoid damage to the edge seal.
- Ensure that the glazing rebate allows for vapour pressure equalisation and drainage.
- Prime metal components according to manufacturer instructions.
- Spray sealant into joints without leaving blowholes. Mask nearby components if needed.
- Smooth the joints using conventional tools. Remove adhesive tape while the sealant is still wet.
- When using multiple reactive sealants, allow the first to fully cure before applying the next.



Ridge design

Ensure that the rafter clamping and strips are pulled under the ridge cap.

Glazing at an angle of 10° from vertical position must conform to a glass structure for overhead glazing.



Eaves with glass roof connection
Design with stepped glazing

The construction design varies based on transom, rain gutter option, and choice of stepped glass or pressure plate. Guarantee proper drainage of condensation and moisture at the eaves.

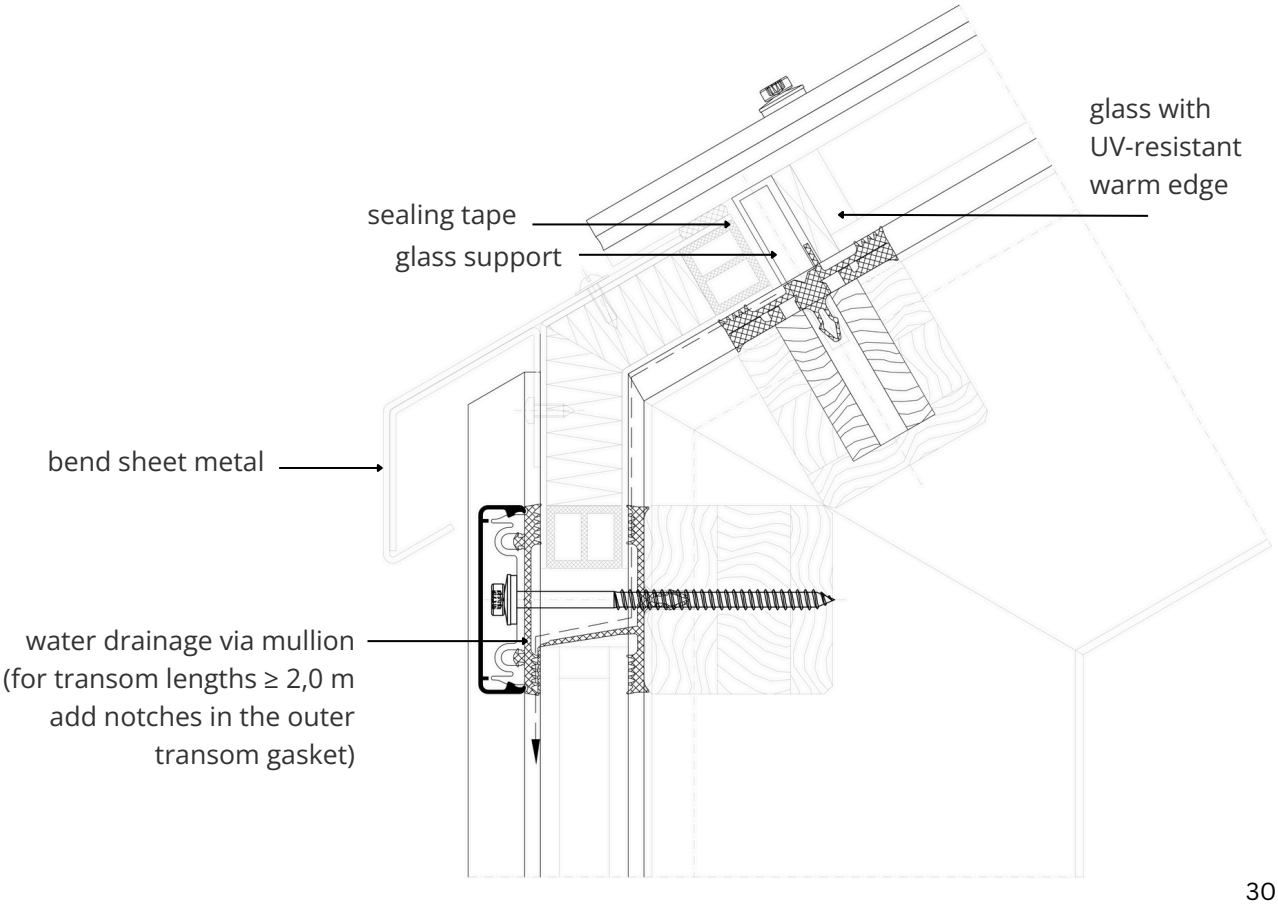
Use UV-resistant edge seal for stepped glazing. Silicone-based seals may need extra sealing around the edges.

Thermal calculations indicate a slight shift in the isotherms on stepped glass panes compared to covered glass edges.

Stepped glass panes must be statically designed based on their reduced wind suction resistance.

Use toughened glass (TVG, ESG) for the outer stepped glass pane to handle extra thermal loads.

For shallow roof slopes, use stepped glass panes to ensure free water flow at the eaves.

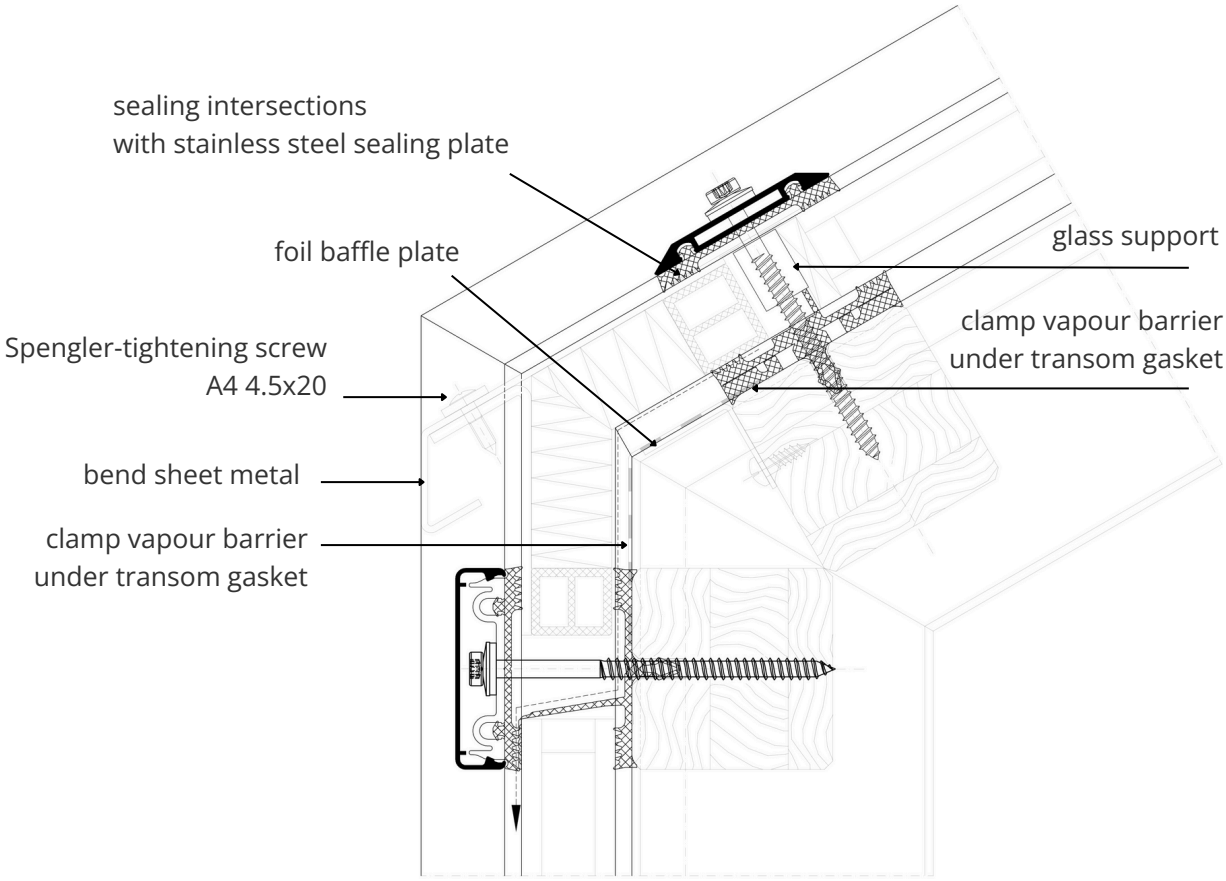


Eaves with glass roof connection
Design with cover plates

- Ensure precise outer sealing on the glass roof.
- Combine stainless steel sealing plates with a four-sided pressure plate cover for high safety.
- Ensure continuous inner sealing for reliable condensate drainage.
- Shorten transom pressure plates by 5 mm in the joint area for water drainage and heat expansion.
- Fit gasket joints flush with a slight oversize.
- Seal the open ends of the transom pressure plates.

Note:

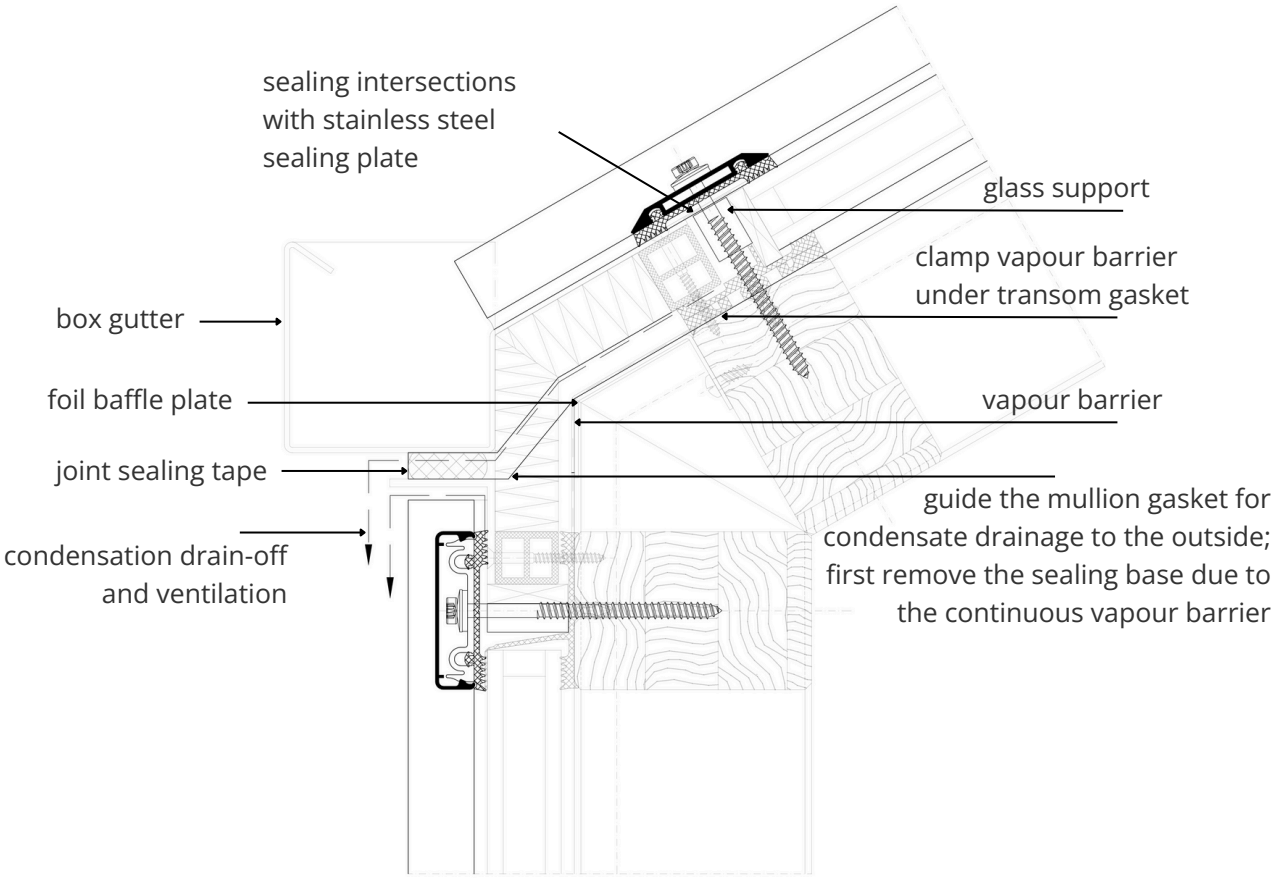
For longer system lengths and rafters, use pressure plates with concealed screw connections to reduce thermal stress. Seal any unused holes.



Eaves with glass roof connection
Design with rain gutter

The rain gutter must be load-bearing and capable to prevent deformation from its weight, water or ice which could apply direct load on the glazing.

The vapor barrier over the foil baffle plate drains condensation, in addition to the gutter-shaped rafter gasket which directs water outside.



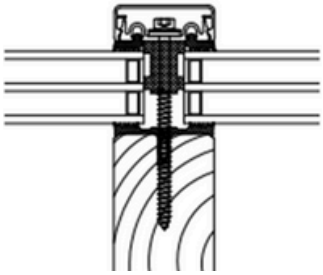
According to Building Energy Act (GEG) and DIN 4108, facades must meet minimum thermal insulation standards to ensure:

- a healthy indoor climate for residents
- protection of the building from climate-related moisture damage
- reduced energy use for heating and cooling
- lower costs and improved climate protection

Better insulation reduces the energy consumption and lowers environmental impact of pollutants and CO2.

AVAVERA timber facades offer excellent Uf values.

Uf values according to DIN EN 10077-2



AVA H 50
glass inset 15 mm

values without screw influence*

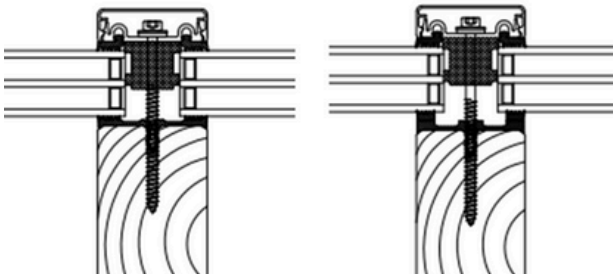
5 mm inner gasket

Glass thickness (mm)	Uf (W/m2 ·K) with insulator D1934		Uf (W/m2 ·K) without insulator D5050	Uf (W/m2 ·K) without insulator D1934
24	(Z2026)	0,925	1,468	1,241
26	(Z2026)	0,900	1,454	1,224
28	(Z2026)	0,868	1,431	1,197
30	(Z2026)	0,843	1,412	1,174
32	(Z2026)	0,828	1,402	1,160
34	(Z2026)	0,807	1,385	1,142
36	(Z2026)	0,797	1,374	1,128
38	(Z2042)	0,688	1,361	1,113
40	(Z2042)	0,663	1,345	1,095
44	(Z2042)	0,629	1,324	1,070
48	(Z2042)	0,605	1,306	1,050
52	(Z2042)	0,587	1,292	1,033
56	(Z2042)	0,574	1,277	1,015

suitable for passive house

* screw influence per piece 0.00322 W/K, for system 50 mm and screw spacing 250 mm
= + 0.26 W/(m2-K) screw influence according to Ebök (12.2008)

Uf values according to DIN EN 10077-2



AVA H 60
glass inset 15 mm

values without screw influence*

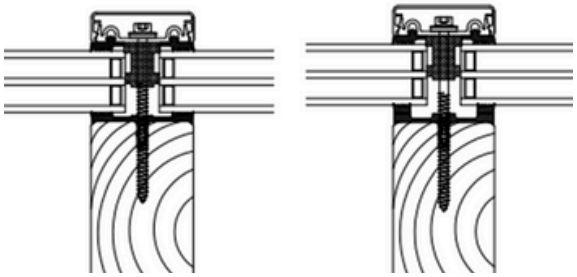
	5 mm inner gasket				10 mm inner gasket			
Glass thickness (mm)	**Uf (W/m2 ·K) with insulator D1934**		**Uf (W/m2 ·K) without insulator D6050**	**D1934**	**Uf (W/m2 ·K) with insulator D1934**		**Uf (W/m2 ·K) without insulator D6050**	**D1934**
24	(Z3026)	0,903	1,561	1,252	(Z3026)	0,916	1,697	1,381
26	(Z3026)	0,881	1,551	1,239	(Z3026)	0,897	1,684	1,365
28	(Z3026)	0,855	1,535	1,218	(Z3026)	0,874	1,664	1,342
30	(Z3026)	0,833	1,520	1,200	(Z3026)	0,856	1,645	1,321
32	(Z3026)	0,820	1,512	1,189	(Z3026)	0,848	1,635	1,309
34	(Z3026)	0,805	1,501	1,175	(Z3042)	0,713	1,620	1,292
36	(Z3026)	0,797	1,492	1,164	(Z3042)	0,693	1,608	1,279
38	(Z3042)	0,669	1,484	1,153	(Z3042)	0,675	1,596	1,264
40	(Z3042)	0,650	1,471	1,138	(Z3042)	0,655	1,581	1,248
44	(Z3042)	0,621	1,455	1,118	(Z3042)	0,630	1,559	1,225
48	(Z3042)	0,600	1,441	1,101	(Z3042)	0,613	1,541	1,205
52	(Z3042)	0,585	1,431	1,088	(Z3042)	0,602	1,526	1,188
56	(Z3042)	0,577	1,420	1,075	(Z3042)	0,593	1,512	1,173

suitable for passive house

suitable for passive house

* screw influence per piece 0.00322 W/K, for system 60 mm and screw spacing 250 mm
= + 0,21 W/(m2·K) screw influence according to Ebök (12.2008)

Uf values according to DIN EN 10077-2



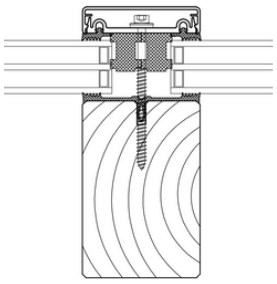
AVA H 60
glass inset 20 mm

values without screw influence*

	5 mm inner gasket				10 mm inner gasket			
Glass thickness (mm)	**Uf (W/m2 ·K) with insulator D1934**		**Uf (W/m2 ·K) without insulator D6050**	**D1934**	**Uf (W/m2 ·K) with insulator D1934**		**Uf (W/m2 ·K) without insulator D6050**	**D1934**
24	(Z3026)	0,902	1,305	1,164	(Z2026)	0,909	1,413	1,252
26	(Z2026)	0,875	1,285	1,138	(Z2026)	0,885	1,390	1,228
28	(Z2026)	0,843	1,259	1,110	(Z2026)	0,855	1,361	1,198
30	(Z2026)	0,816	1,236	1,084	(Z2026)	0,832	1,334	1,170
32	(Z2026)	0,797	1,221	1,067	(Z2026)	0,817	1,316	1,151
34	(Z2026)	0,776	1,201	1,047	(Z2042)	0,717	1,294	1,128
36	(Z2026)	0,759	1,186	1,029	(Z2042)	0,696	1,276	1,109
38	(Z2042)	0,695	1,161	1,013	(Z2042)	0,675	1,258	1,091
40	(Z2042)	0,650	1,142	0,993	(Z2042)	0,652	1,237	1,069
44	(Z2042)	0,615	1,126	0,965	(Z2042)	0,621	1,206	1,037
48	(Z2042)	0,588	1,103	0,940	(Z2042)	0,597	1,179	1,010
52	(Z2042)	0,566	1,085	0,919	(Z2042)	0,580	1,156	0,986
56	(Z2042)	0,549	1,067	0,899	(Z2042)	0,564	1,135	0,964
	suitable for passive house				suitable for passive house			

* screw influence per piece 0.00322 W/K, for system 60 mm and screw spacing 250 mm
= + 0,21 W/(m2·K) screw influence according to Ebök (12.2008)

Uf values according to DIN EN 10077-2



AVA H 80
glass inset 20 mm

values without screw influence*

5 mm inner gasket

Glass thickness (mm)	Uf (W/m2 ·K) with insulator D1934		Uf (W/m2 ·K) without insulator D8050	Uf (W/m2 ·K) without insulator D1934
24	(2xZ2026)	0,880	1,439	1,241
26	(2xZ2026)	0,857	1,426	1,224
28	(2xZ2026)	0,831	1,409	1,197
30	(2xZ2026)	0,809	1,393	1,174
32	(2xZ2026)	0,795	1,383	1,160
34	(2xZ2026)	0,778	1,371	1,142
36	(2xZ2026)	0,767	1,361	1,128
38	(2xZ2026)	0,757	1,350	1,113
40	(2xZ2042)	0,637	1,338	1,095
44	(2xZ2042)	0,608	1,320	1,070
48	(2xZ2042)	0,587	1,305	1,050
52	(2xZ2042)	0,570	1,292	1,033
56	(2xZ2042)	0,560	1,280	1,025

suitable for passive house

* screw influence per piece 0.00322 W/K, for system 80 mm and screw spacing 250 mm
= + 0.16 W/(m2-K) screw influence according to Ebök (12.2008)