

Mullion-transom curtain wall **VELLA**

- ➔ A wood and aluminum system designed for the construction of mullion-transom curtain walls and winter gardens
- ➔ The load-bearing structure is made of wooden mullions with a thickness of 50, 60 or 80 mm and a depth adopted on the basis of static calculations
- ➔ The system consist of a wide range of aluminum profiles, gaskets and insulators
- ➔ It ensures permanent fixing of glass, tightness, high thermal parameters and excellent wood protection



FACADE PARAMETERS

System features

- Wood section width: 50, 60, 80 mm
- Glass unit thickness: 9–60 mm
- Number of drainage levels: up to 3
- Complete gutter system
- Profiles bending possible (applies to structure '50')
- Thermal properties U_w from 0.614 W/m²K (using PE insulators)
- Ricon connectors system for wood
- High tightness: application of cover gasket
- Various aluminum cover strip profiles, including a wooden overlay
- Load-bearing structure: wooden mullions and transoms
- Easy workings
- Many installation solutions available

Water tightness, air permeability, wind load

Characteristic parameters		Standards	Test results
Air permeability	Wall without window	PN-EN 12152:2004	Class AE 1500 Pa
	Wall with window		Class AE 1350 Pa
Water tightness	Wall without window	PN-EN 12154:2004	Class RE 2400 Pa
	Wall with window		
Wind load resistance		PN-EN 13116:2004	2400 Pa
Impact resistance	Single-chamber glazed unit 6/16/6 standard	PN-EN 14019:2006	Class I1/E2
	Single-chamber glazed unit ESG6/16/ESG6 tempered		Class I5/E6

Parameters apply to the variant of the facade with an aluminum mullion.

Thermal properties for reference module

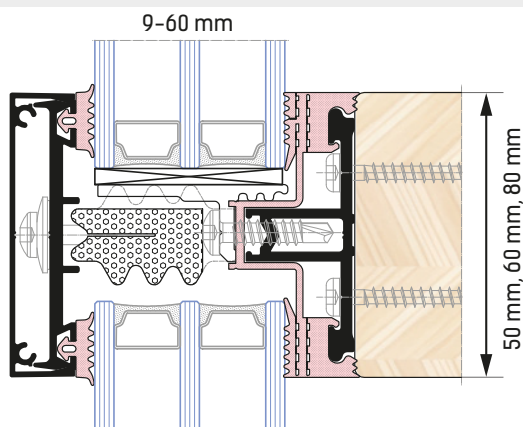
Heat transfer coefficient U_w
for reference module, dimensions: 1.23 x 1.48 [m]

U_w [W/(m ² K)]		Vella 50	Vella 60	Vella 80
Glazing unit 5/16/5	$U_g=1.1$ [W/(m ² K)]	1.223	1.223	1.194
	$U_g=1.0$ [W/(m ² K)]	1.136	1.135	1.108
Glazing unit 4/16/4/16/4	$U_g=0.7$ [W/(m ² K)]	0.796	0.807	0.791
	$U_g=0.5$ [W/(m ² K)]	0.616	0.627	0.614

STRUCTURAL WIDTHS

Range of construction widths and glazing units of the VELLA system:

- VELLA 50 – 50 mm
- VELLA 60 – 60 mm
- VELLA 80 – 80 mm

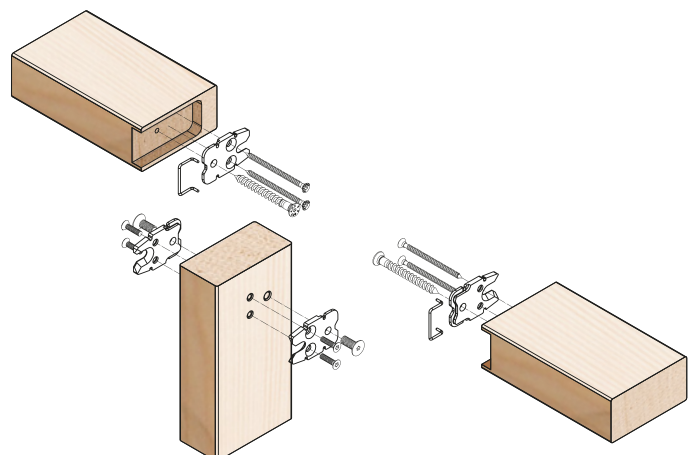


CONNECTION OF WOODEN MULLIONS AND TRANSOMS

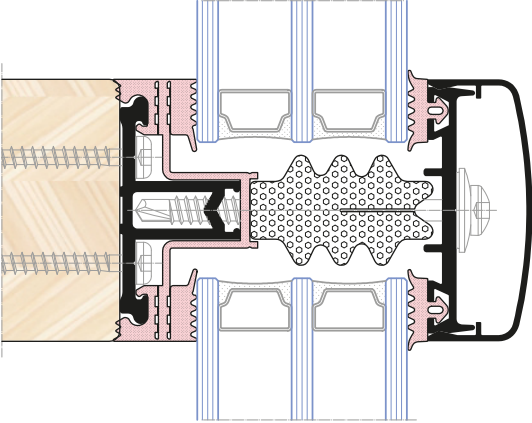
– RICON connectors system

Mullion-transom connectors for wood

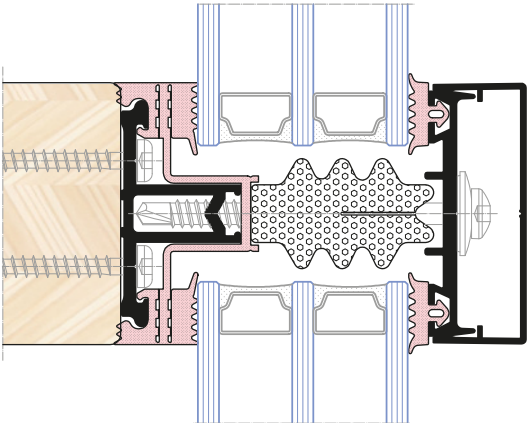
- A modern, durable and aesthetic connectors system for mullion-transom structures and winter gardens
- The connectors allow for transferring loads resulting from the weight of the glass, even up to 550 kg
- All connectors are mounted in a hidden manner. They can be dismantled, allowing for initial assembly



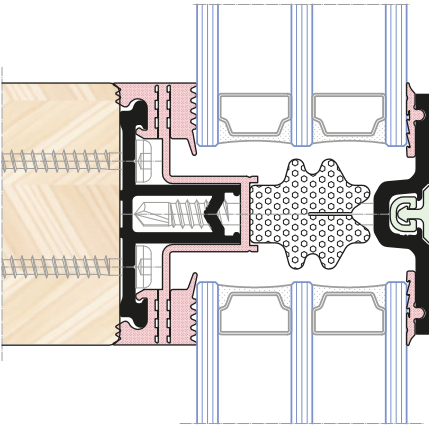
VARIANTS OF EXTERNAL COVER STRIPS



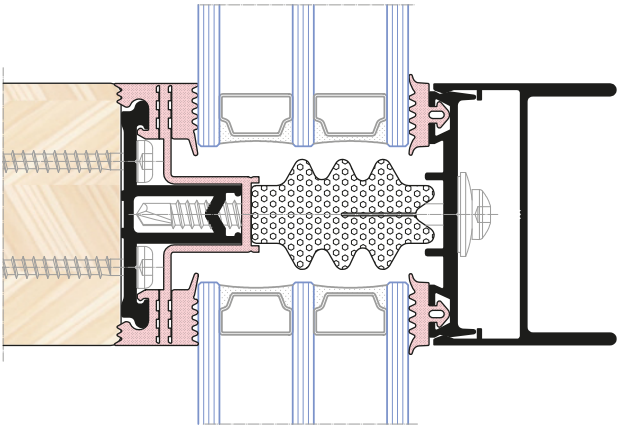
SOFT



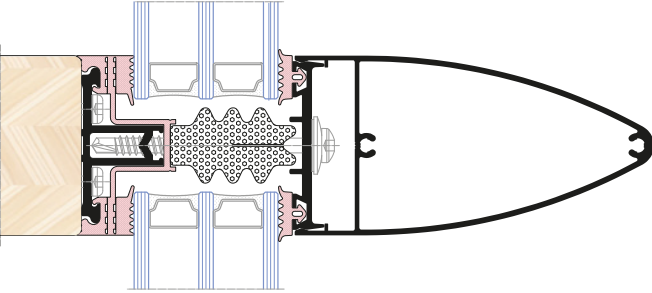
CLASSIC



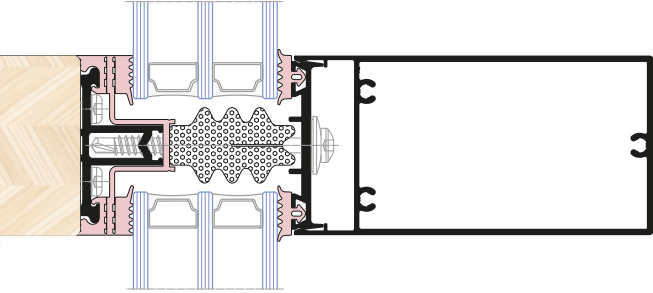
FLAT



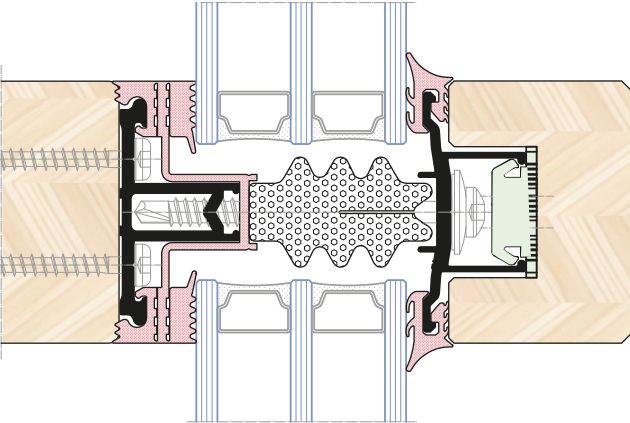
INDUSTRIAL



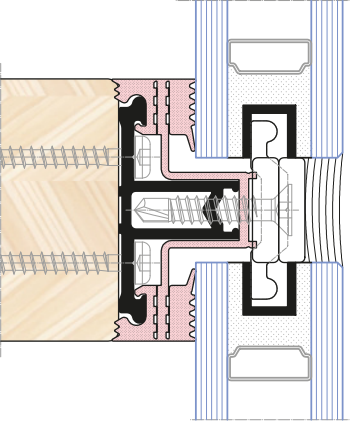
OVAL



CUBOID

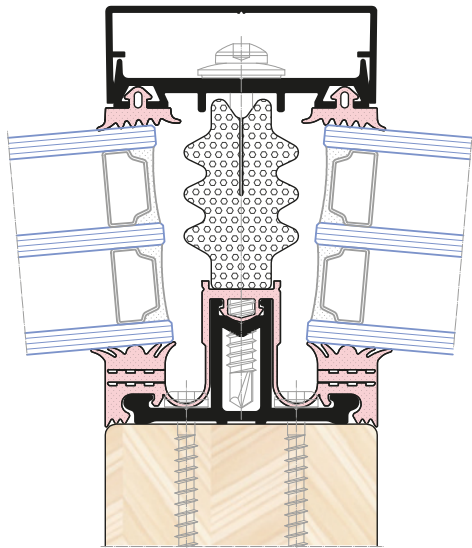


WOODEN

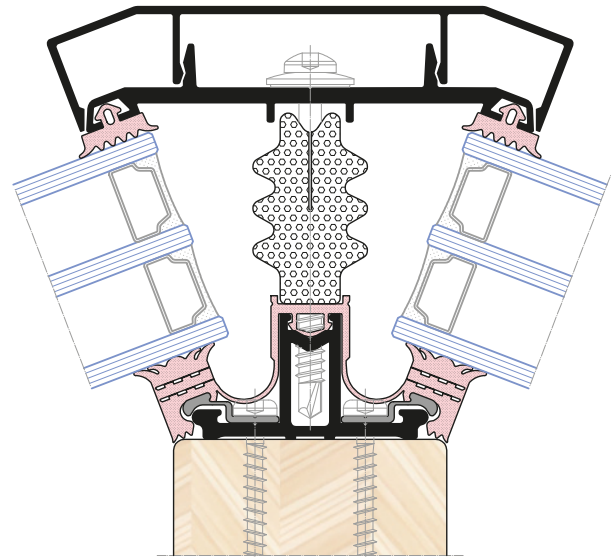


SILICONE

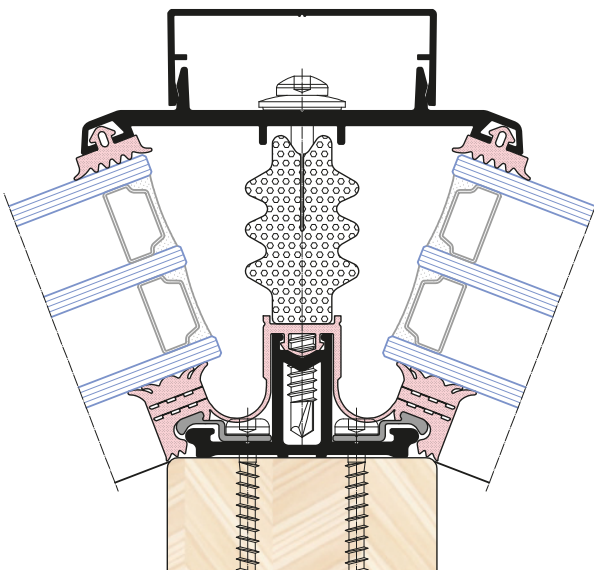
VARIANTS OF ANGLE CONNECTIONS



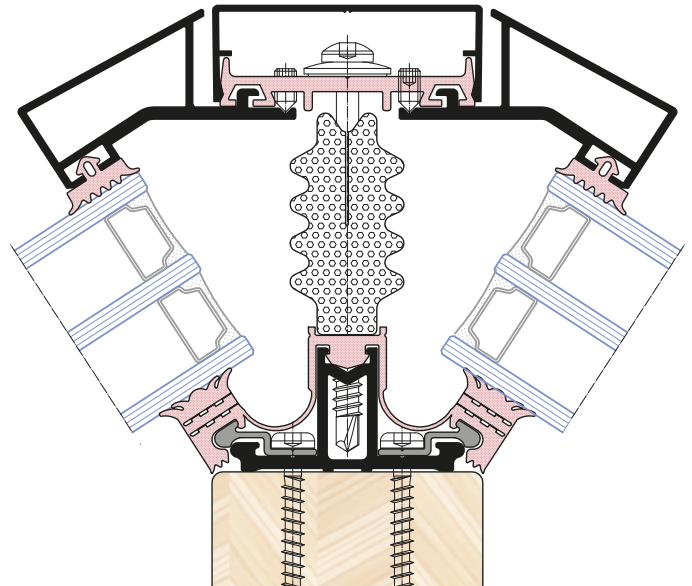
a. Gasket: connections up to 16 degrees



b. Angular profile: connections up to 51 degrees



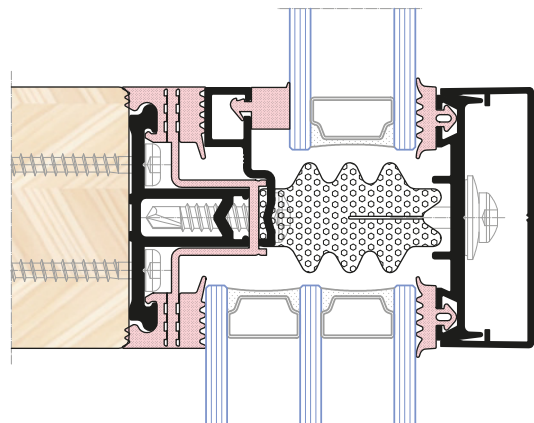
c. Angular profile: connections up to 51 degrees



d. Angular profile: connections up to 51 degrees

LEVELLING OF GLAZING UNITS

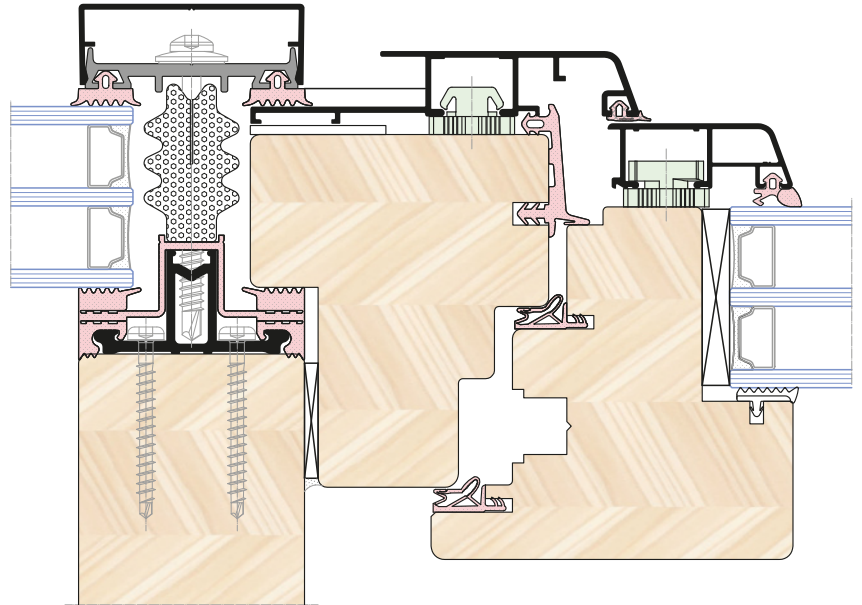
- The use of a dedicated leveling profile allows to combine glazing units of different thickness in one mullion/transom
- Despite the use of different glazing units, the pane remains faced from the outside



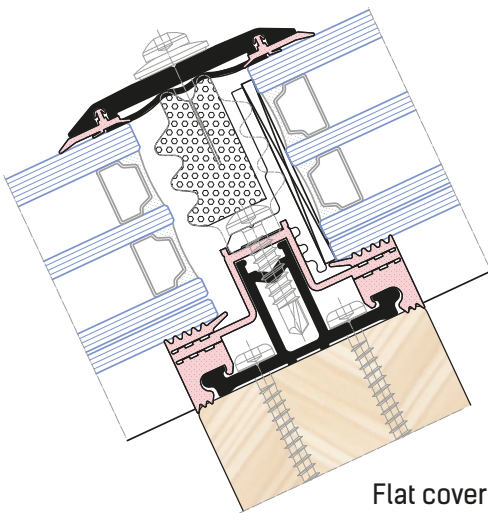
INSTALLATION OF WOODEN ALUMINIUM WINDOW

Combination of the VELLA curtain wall with the wooden-aluminum windows of the GEMINI system

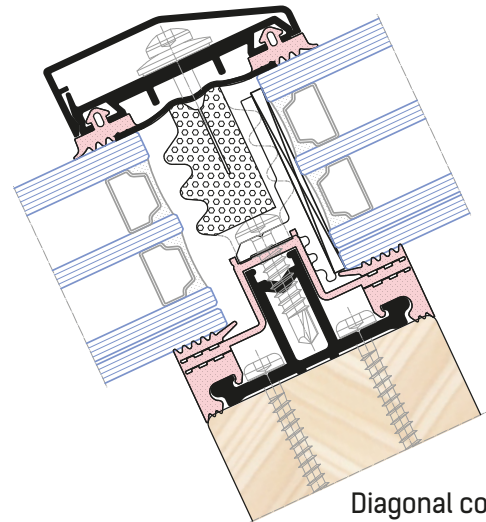
- In the GEMINI window system, the „F“ type frame profiles are used for connections with the mullion and transom structure.
- Gemini systems:
 - Classic
 - Linear
 - Quadrat
 - Quadrat FB
 - Integral I
 - Integral II



SOLUTIONS FOR ROOF/SKYLIGHT

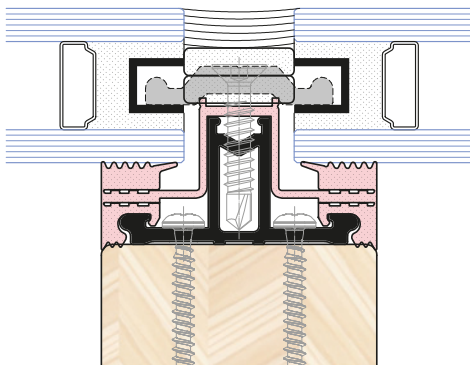


Flat cover strip

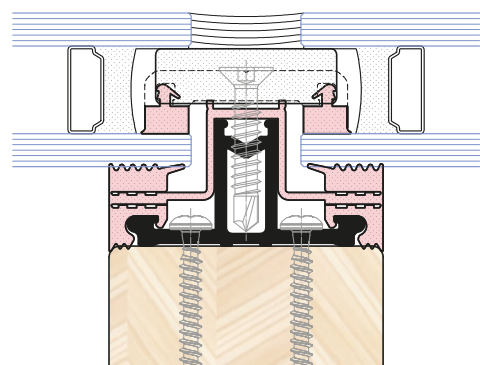


Diagonal cover strip

VELLA S – glass connection using structural silicone

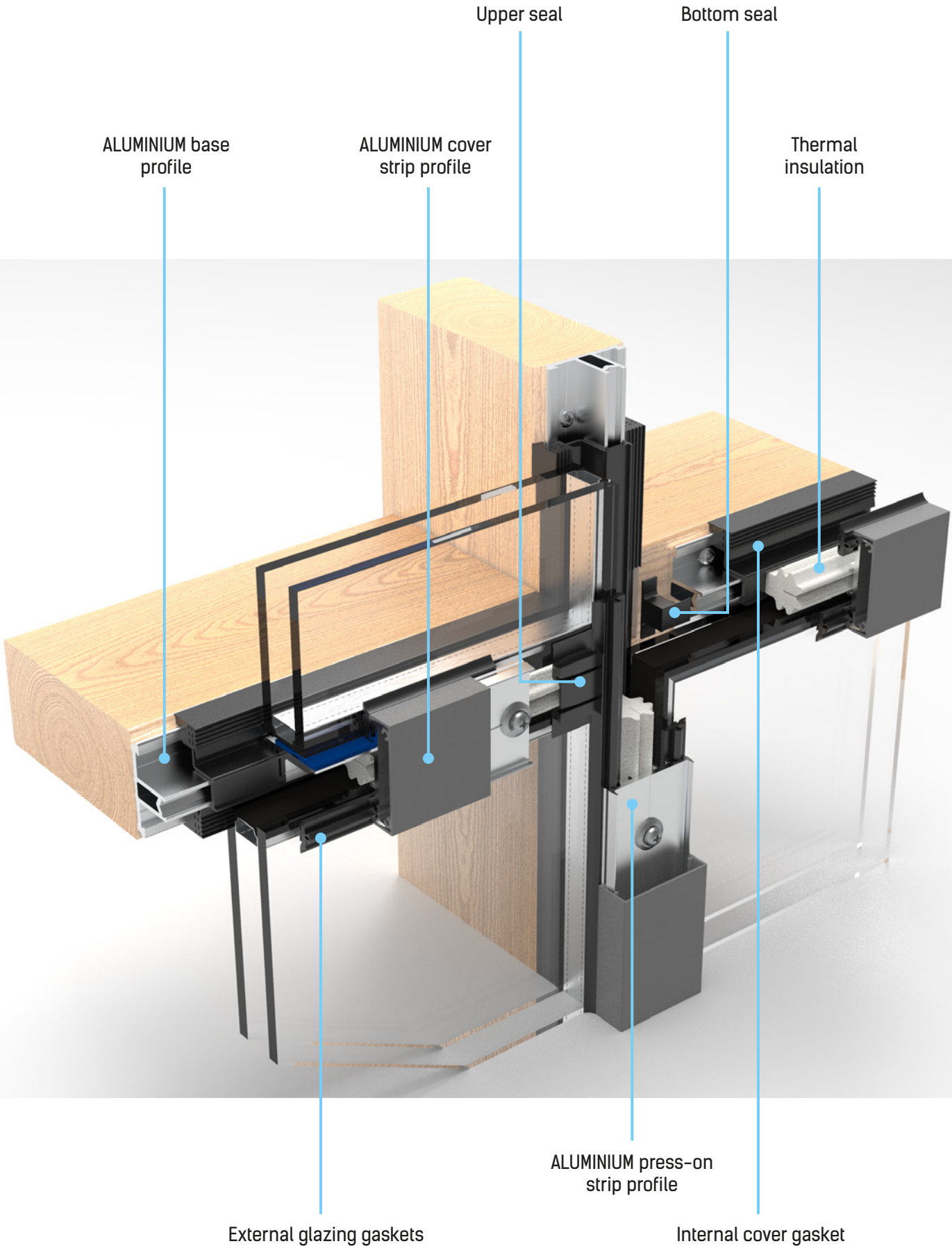


With a glued-in profile between the glass



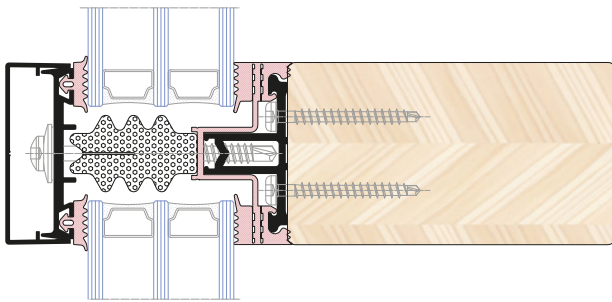
Direct fixing to the glass

STRUCTURE OF THE MULLION-TRANSOM ELEMENT



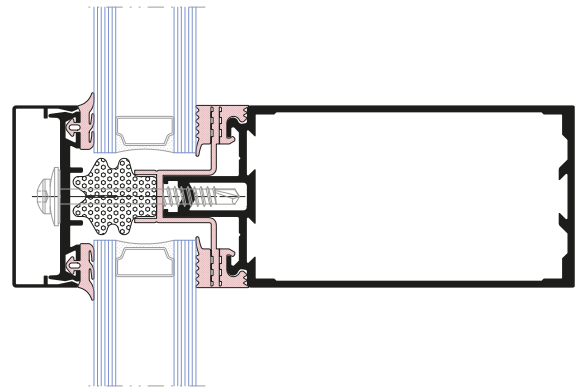
ALTERNATIVE SOLUTIONS FOR MULLION/TRANSOM

Wooden mullion/transom (VELLA system)



VELLA 50

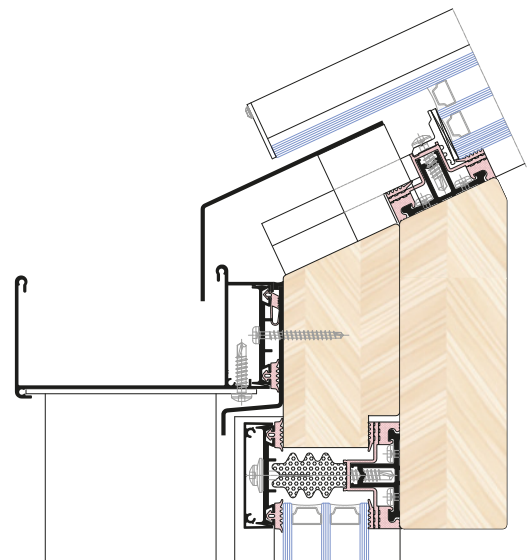
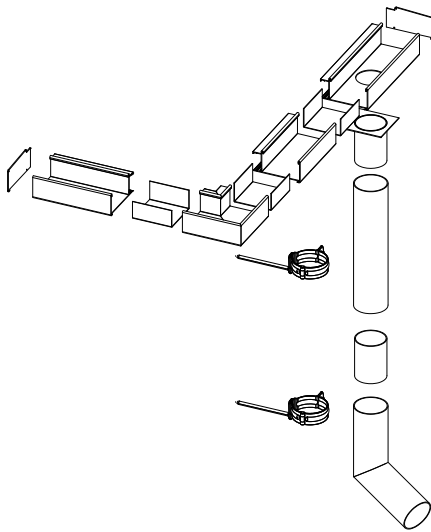
Aluminium mullion/transom (AF50 system)



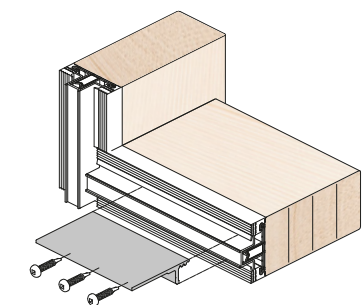
AF 50

INTEGRATED GUTTER SYSTEM ON A SINGLE TRANSOM

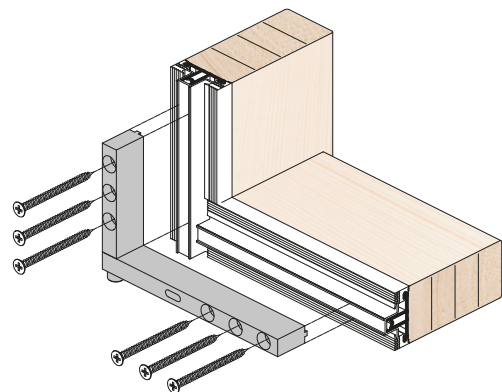
VELLA – gutter system for winter gardens on a single transom



GLAZING UNIT SUPPORT



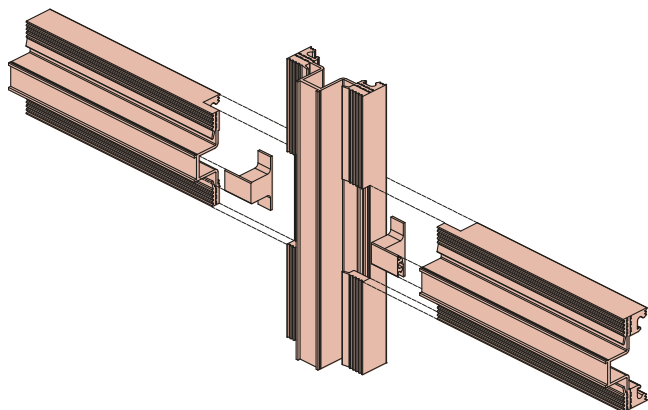
Regular supporting elements
(glass weight up to 450 kg/field)



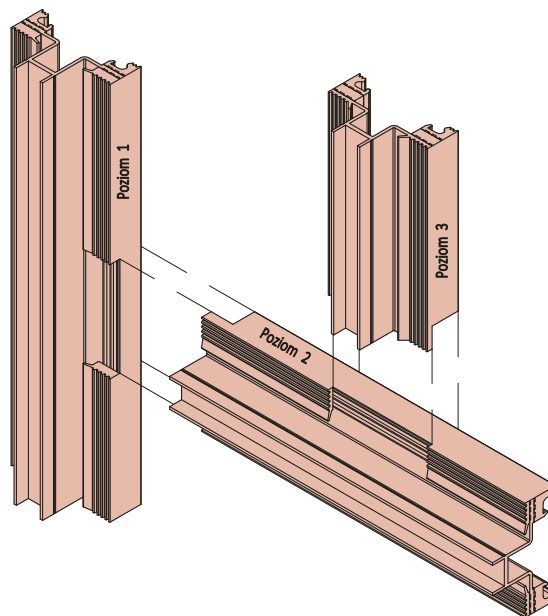
Reinforced single-/double-sided cross-bracket
(glass weight up to 550 kg/field)

INTERNAL GASKETS FOR MULLION AND TRANSOM – COVER GASKETS

- Cover gaskets made of thermoplastic elastomers insulate and protect the internal part of the structure against external factors
- On the other hand, the upper and bottom seals and the possibility of obtaining a 3-stage drainage, guarantee high tightness of the structure



Bottom seal of cover gasket



It is possible to have up to 3 drainage levels

COLORS



ALURON Color Collection 2 – Original collection of over 60 colors

AR – MAT
RAL MAT powder coating



AR – FS
RAL FS (fine structure)
powder coating



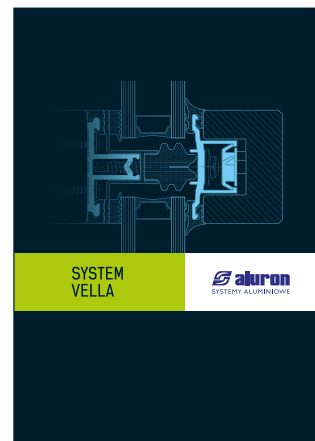
AM – FS
Metallic FS (fine structure)
powder coating



ANODIZED & EFFECT COLORS
AA – C anodized colors: C0, C33, C34
AA – R imitation of anodizing –
powder coating



AD – MAT
Wood-like decors MAT



Certified quality of powder coating



Powder coated surfaces are characterized by their high resistance to changing temperatures, UV and mechanical damages. Powder coating is offered in **QUALICOAT** quality and optionally **QUALICOAT SEASIDE** for additional anti-corrosion protection.

Surfaces that imitate the structure of wood without the use of typical foil, using modern sublimation painting technology: **DECORAL Heat transfer**. Aluminum profiles are also available in anodized version.



ALURON
PL 42-400 Zawiercie
ul. Podmiejska 11
holzalu@aluron.eu

www.aluron.eu

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