



TOPAZE

CONTEMPORARY WINDOW







TOPAZE, clean lines, simplicity and adaptability



Architect: Agence Terreneuve and Adam Yedid
Photography: Daniel Rousselot

A complete range

The TOPAZE casement frame is fully integrated within the TOPAZE series with no thermal break. Its wide choice of applications and technical solutions makes it ideal for all types of residential and non-residential projects.

The TOPAZE casement is fully compatible with the door and sliding systems in the suite. It is available in a variety of applications such as single and double sash windows and patio doors with inward or outward opening.



A cost-effective and high-performance range

Constructed on a 46mm module, the TOPAZE casement meets European standards for acoustic and weather performance. Due to the depth of its offer and its economic solutions, TOPAZE provides the best answer for an optimised design.

The TOPAZE casement is the ideal system for exterior joinery in hot climates and can also be used for internal partitioning of office areas.



Key features

Aesthetic design

- A flat face design for all types of doors and windows, in harmony with architectural trends
- Handle form: an exclusive TECHNAL® design
- Embedded gear box allowing the use of square drive handles for all applications for a discrete appearance
- Exclusive TECHNAL® finishes on profiles and accessories
- Glass surface area: less visible aluminium for more natural light

Weathertightness principle

- Double sealing between fixed frame and opening sash by interior/exterior multi-purpose gasket with rounded corners
- The high compressibility of the gaskets absorbs any minor production or installation tolerances and guarantees optimum sealing

Variety of applications

- Windows and patio doors
- Single and double sash
- Inward-opening sashes: patio door, turn/tilt, bottom-hung
- Outward-opening sashes: projecting top-hung, top-hung on butt hinges, side-hung outward-opening
- Special opening sashes: horizontal and vertical pivot
- Composite frames

Two versions of opening sashes with interior overlap

- Topaze: 6 to 33 mm glazing
- Topaze +: 6 to 39 mm glazing

Performance:

- Weather performance: tested to the EN1026 - EN1027 - EN12211 European standards
 - Air permeability: up to 600 Pa (class 4)
 - Watertightness: up to 1200 Pa (class 1200A)
 - Wind resistance: up to 2000 Pa (class 5)
- Acoustic: $R_w (C; C_{tr}) \leq 38$ dBa (-1; -4) depending on glazing used.





TOPAZE, a contemporary design

The TOPAZE casement frame is available in two opening sash versions with clean lines and contemporary design.



Topaze: for inward and outward-opening sashes.

Topaze +: slim outside, strong inside. Stylish interior lines for large opening sashes.

Locking mechanisms

TECHNAL® has developed a complete aluminium handle offer with an exclusive design providing ergonomics, quality and identity. All the single

espagnolette (windows) or double lever handles (doors) are also available in all finishes for total coherence with the frame colour.



Single espagnolette handle for windows and patio doors



Double lever handle on rosette: entrance door and patio door with lock



Single espagnolette handle with narrow back plate: outward opening doors and sashes



TOPAZE, inward opening

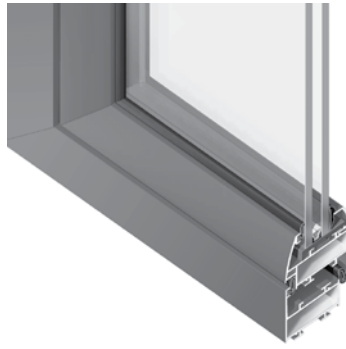
Applications

- Windows and patio doors
 - Single and double sash
 - Composite framing
- Opening:
 - Inward opening
 - Turn/tilt
 - Bottom hung
 - Glass thickness capacity: from 6 to 33 mm
 - Adjustable hinges

Three opening sash designs



Opening sash flat and flush on external face. Square beads on interior



Opening sash rounded and flush on external face. Round beads on interior



Basic opening sash without flush external face. Square beads on interior



Handles

- Ergonomic and cost-effective handles come in three models for all types of projects and meet TECHNAL® quality standards.
- Fitted on mechanism unit embedded in the sash with integrated anti-false manoeuvre system.



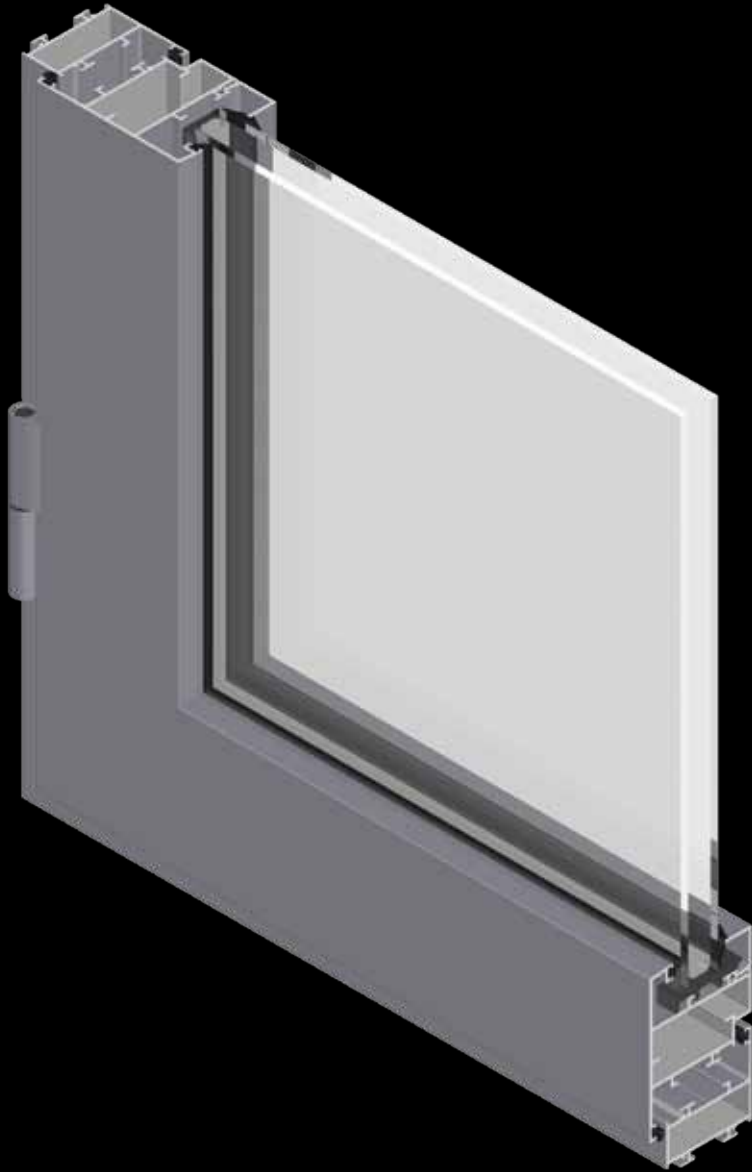
"Exclusive TECHNAL® design"
100% aluminium
All colours
Locking or non-locking
Window, door



"Intermediate" range
espagnolette and aluminium cover,
polyamide connector with Secustik®
system Stainless steel, white, black,
satin silver. Window, door



"Eco"
Aluminium espagnolette
connector and polyamide cover
three colours available
Window



TOPAZE, outward opening

The outward opening TOPAZE casement frame offers a flush design opening sash, straight lines for perfect coherence with the range's door and sliding systems. Choice of flush or non-flush sashes on the interior.

Variety of applications

- Windows, patio doors, shutters
- Single- and double-sash
- Opening:
 - Projecting top hung or top-hung
 - Side hung
 - On hinges or friction stay

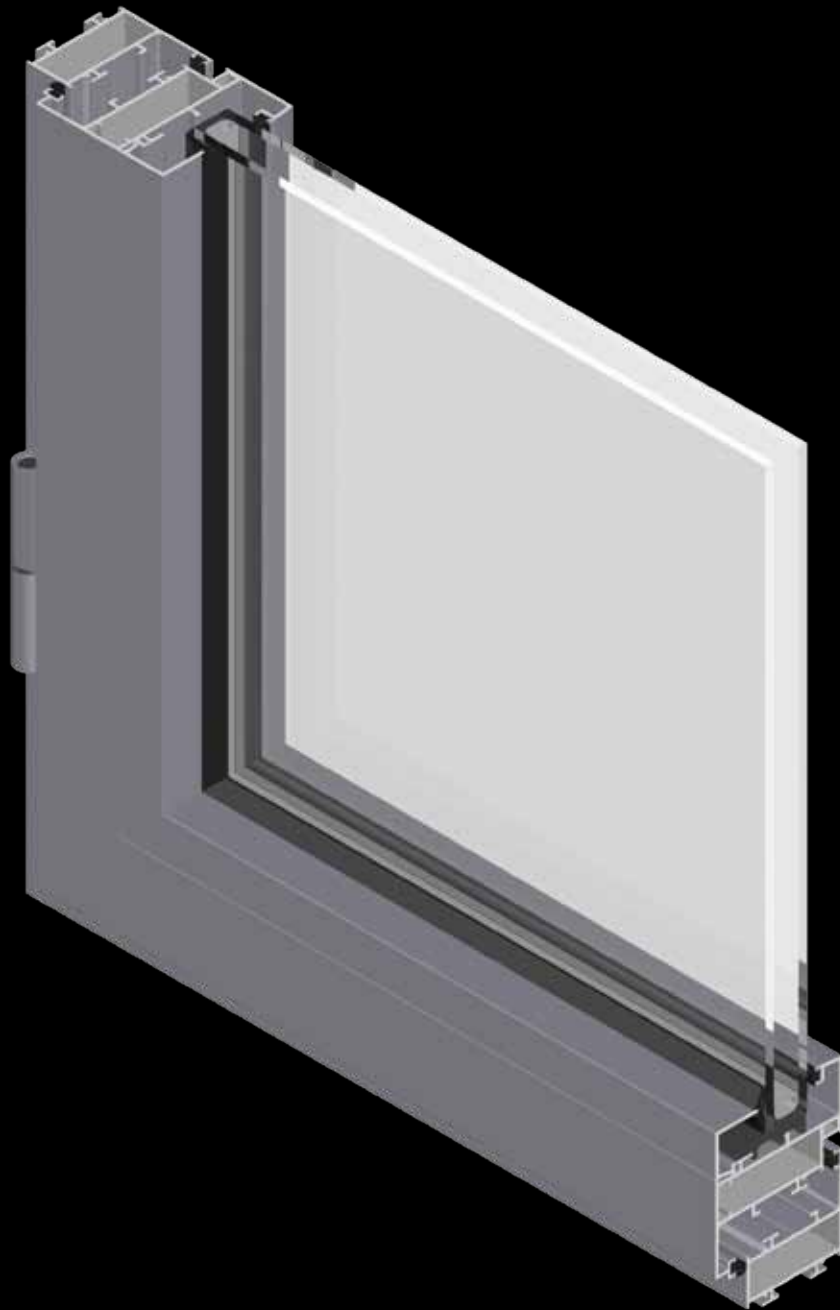
Performance

- Weathertightness: tested to European standards EN1026-EN1027-EN12210
 - Air permeability: up to 600 Pa (class 4)
 - Watertightness: up to 1050 Pa (class 1050A)
 - Wind resistance: up to 2000 Pa (class 5)

Locking mechanisms

- Embedded gear box for multi-point locking mechanisms. The number of locking points, defined according to the frame dimensions, guarantees uniform weather performance
- TECHNAL® design square drive handles with narrow back plate – locking or non-locking





TOPAZE, TOPAZE + casement frame

Aesthetic design

- Slim outside, strong inside. TECHNAL® has developed TOPAZE + by maintaining its identity through recognisable lines, a range of stylish aluminium framing is achieved by an opening sash which is deeper on the internal frame
- Inward opening
- 61mm module opening sash profile for windows and patio doors with lock
- **Exclusive TECHNAL® design** handles on embedded gear box with integrated mis-handling mechanism
- Adjustable hinges

Key features

- Glazing of up to 39 mm allowing the use of glazing with integrated blinds
- Large sized frame thanks to a stronger inertia (e.g. 1 leaf patio door: W 1100 mm x H 2350 mm)
- Watertightness up to 1200 Pa

Inward opening

- Single and double sash windows
- Single and double sash patio doors, locking or non-locking
- Opening:
 - Inward opening
 - Turn/tilt
 - Bottom-hung

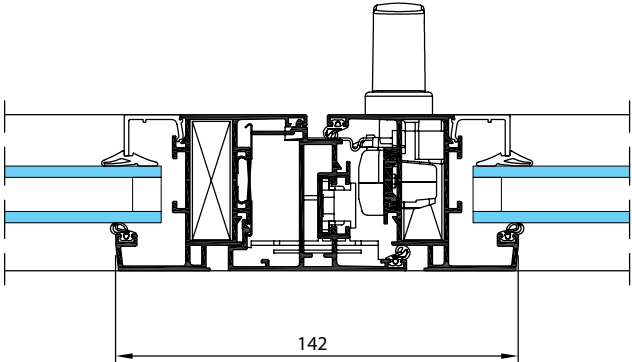


Sections

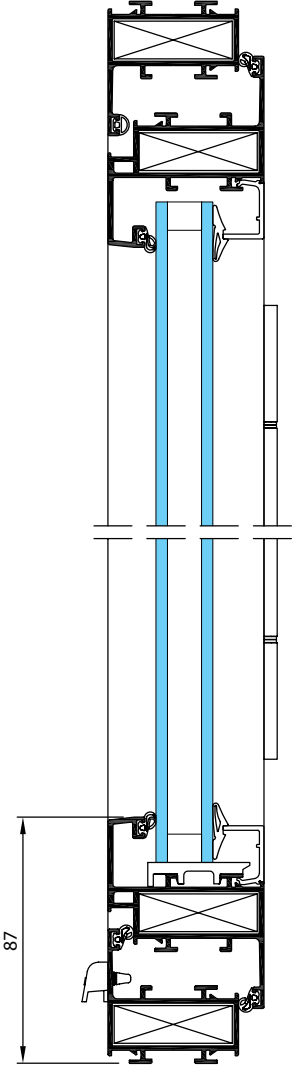
TOPAZE

Single and double sash window inward opening, straight design

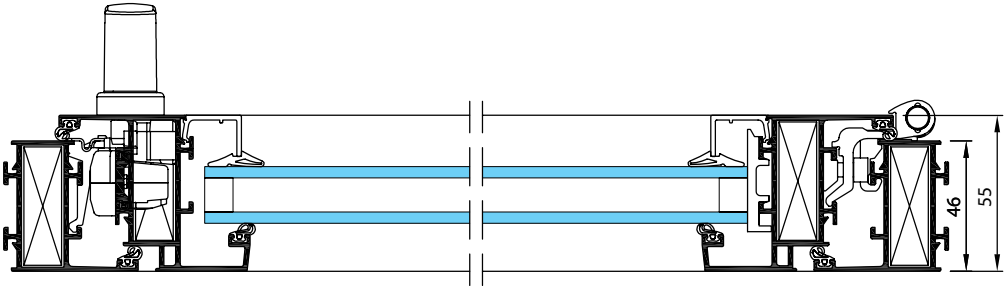
14



2-sash central node



Vertical cross section

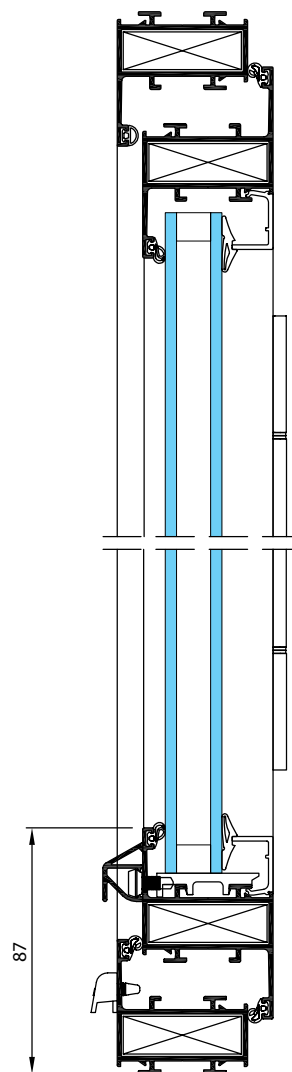
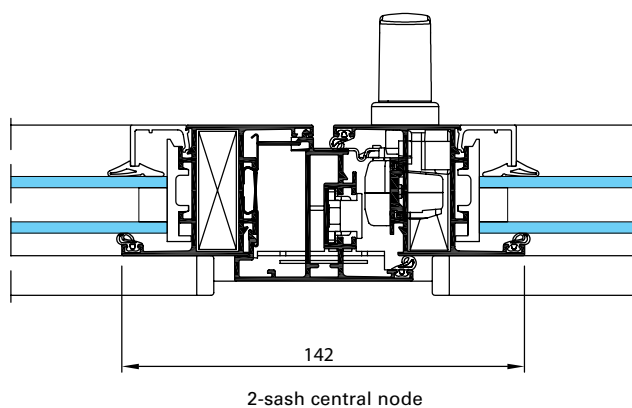


Horizontal cross section



TOPAZE

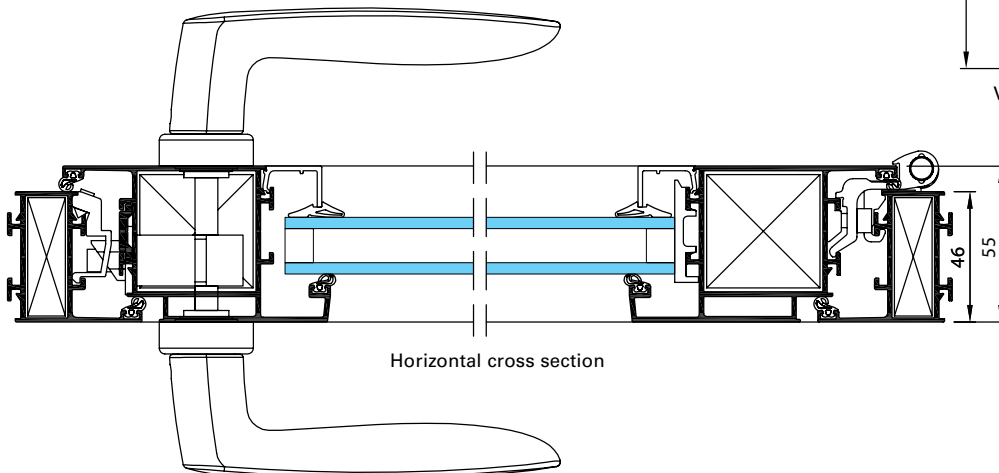
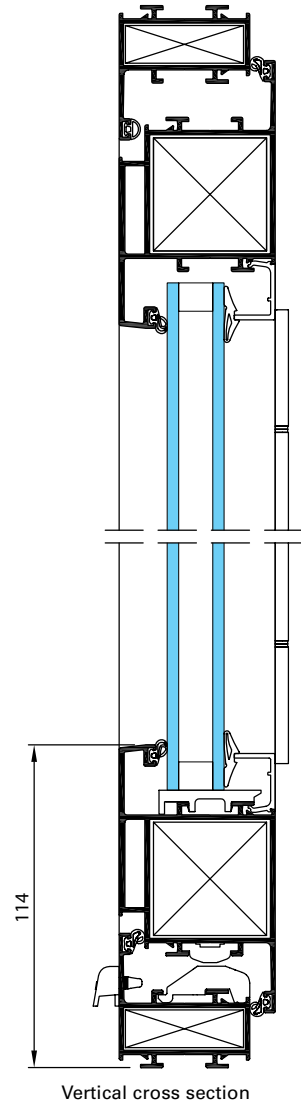
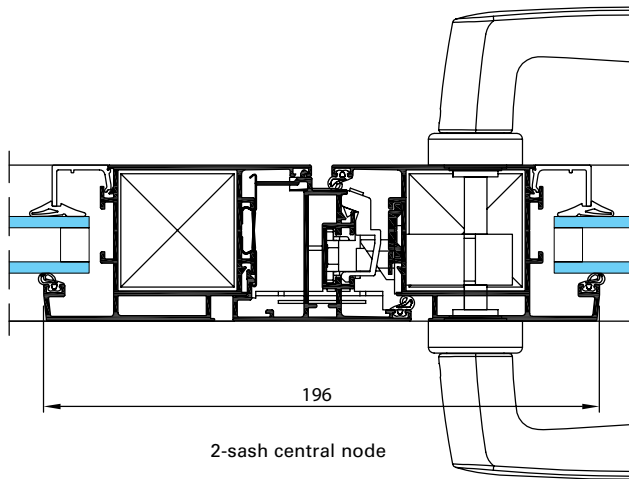
Single and double sash window,
inward opening, basic sash



Sections

TOPAZE

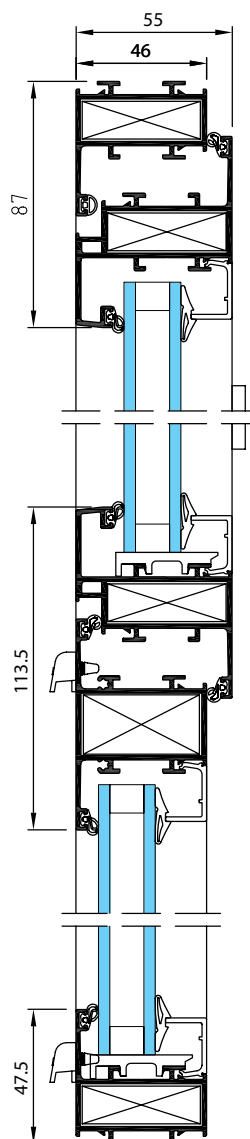
1 and 2 sash patio door with lock, inward opening, straight design



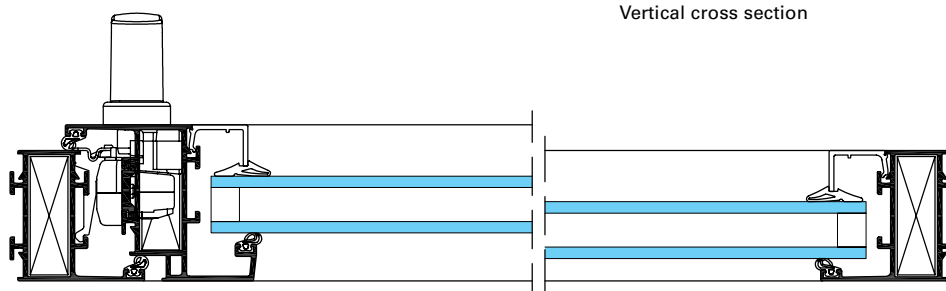


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Composite frame
inward opening



Vertical cross section



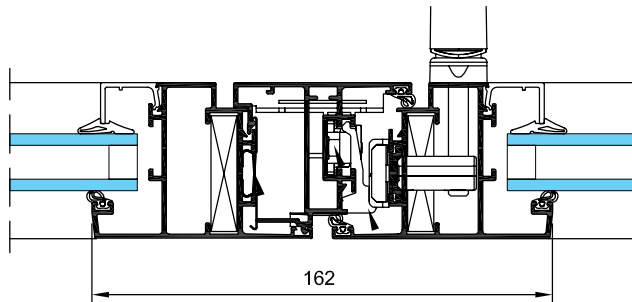
Horizontal cross section



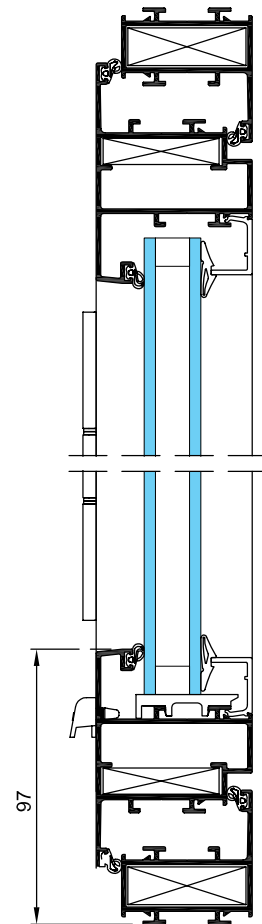
Sections

TOPAZE

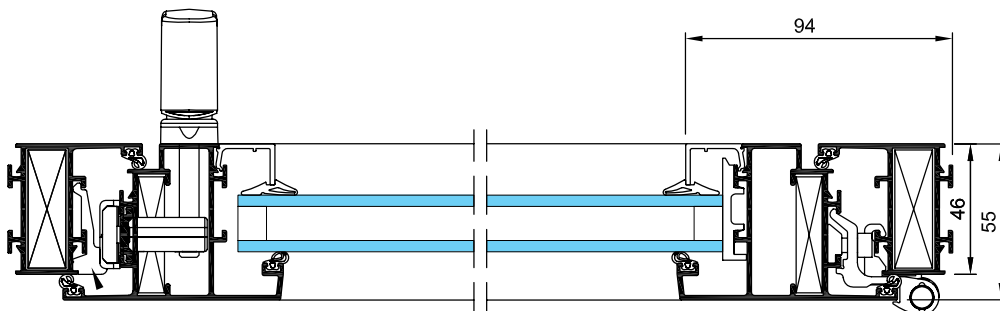
Side-hung window
outward opening



2-sash central node



Vertical cross section

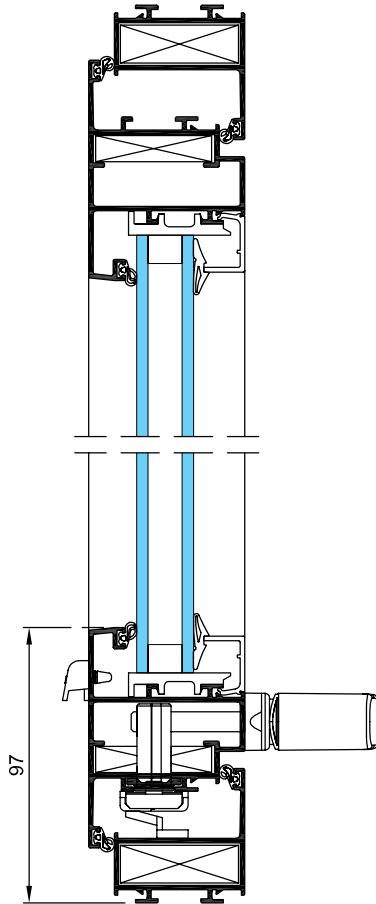


Horizontal cross section

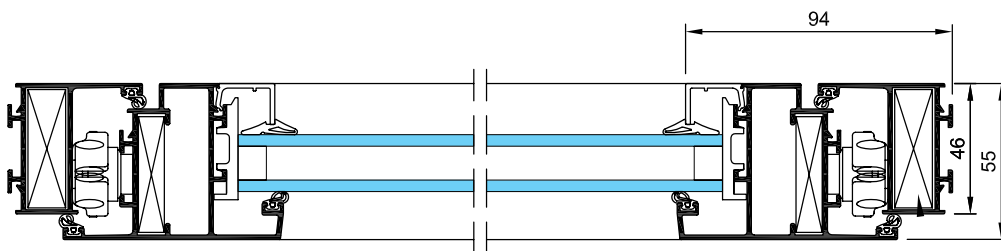


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Top-hung window
outward opening



Vertical cross section



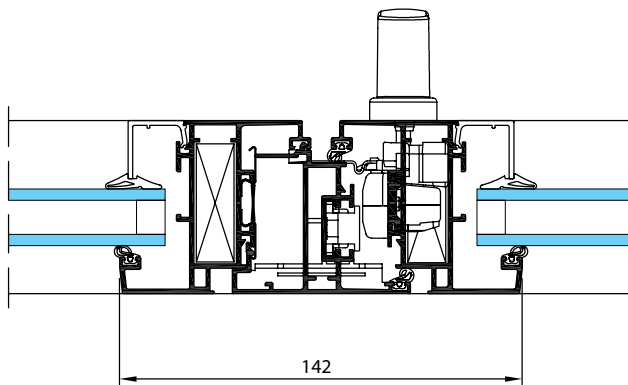
Horizontal cross section



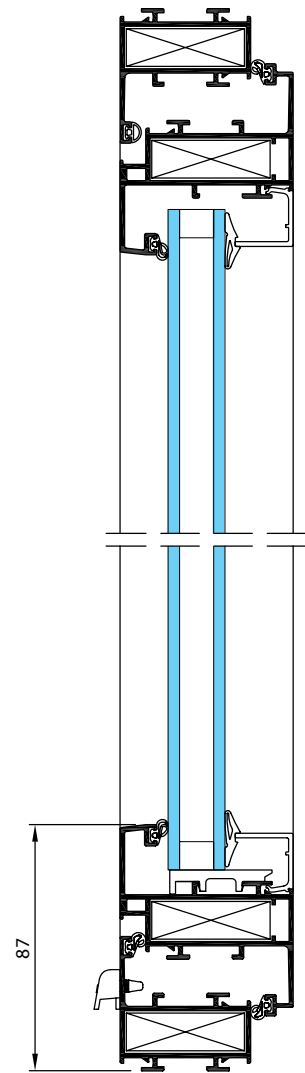
Sections

TOPAZE +

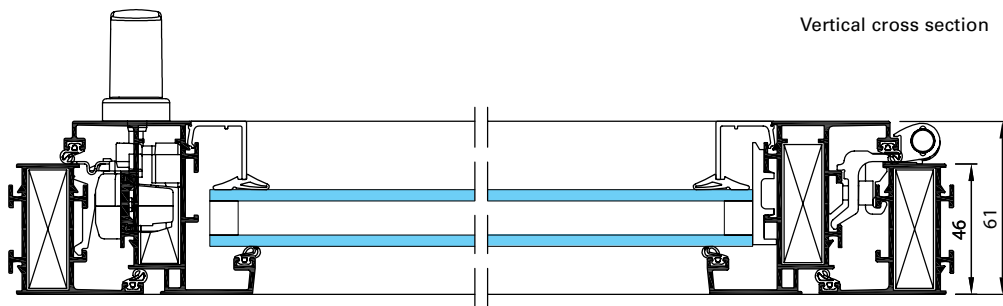
Single and double sash window



2-sash central node



Vertical cross section

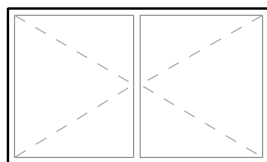
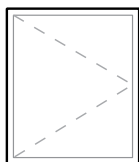


Horizontal cross section

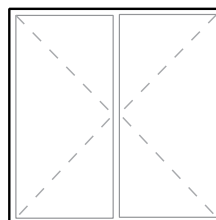


Applications

Inward opening



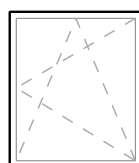
Single and double sash window



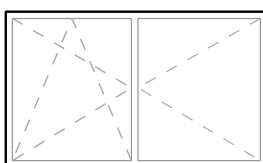
Single and double sash patio door



Bottom-hung

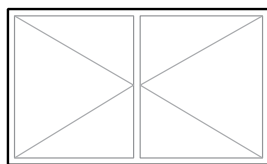
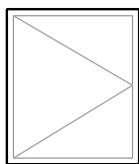


Turn/tilt

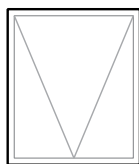


Double sash (turn/tilt with side-hung)

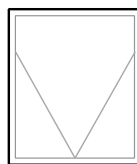
Outward opening



Single and double sash window



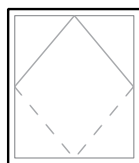
Projecting



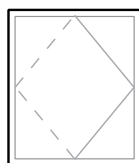
Top-hung



Special opening systems

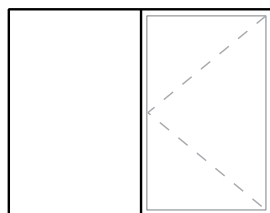
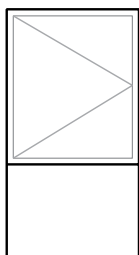


Horizontal pivot



Vertical pivot

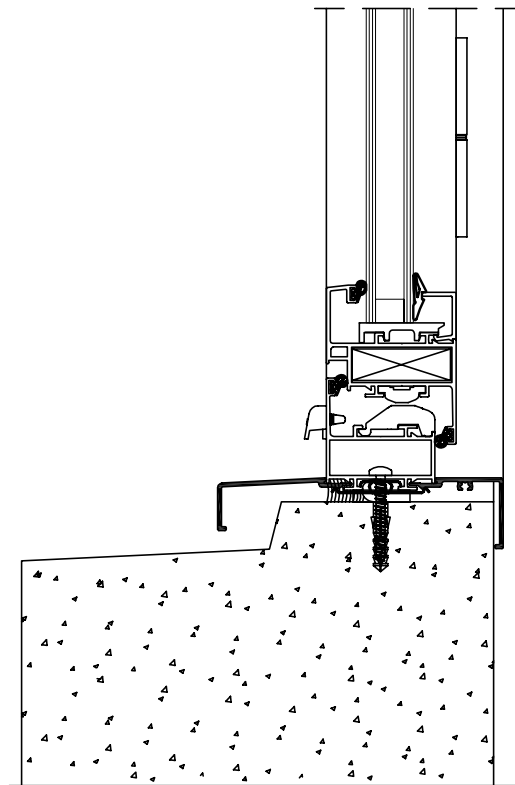
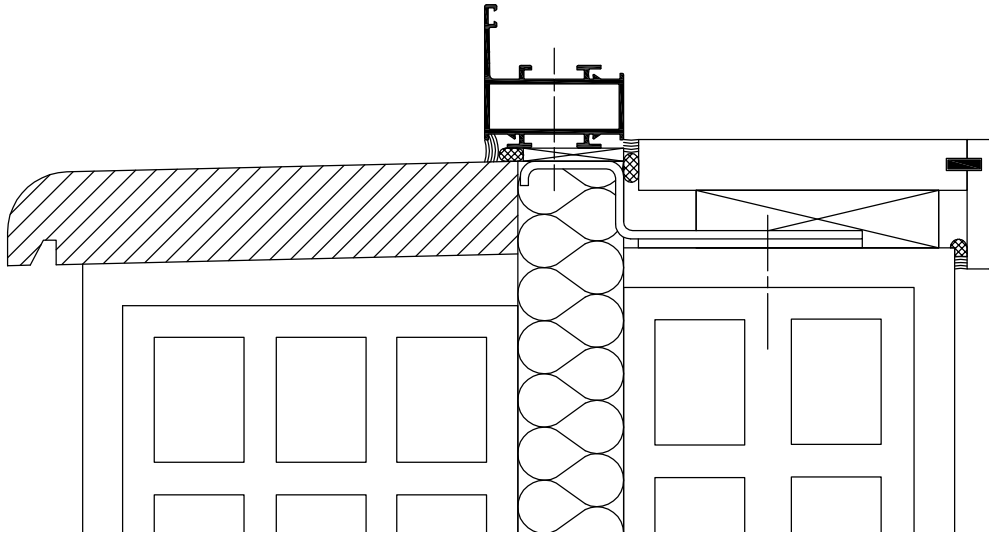
Composite frames



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Installation options

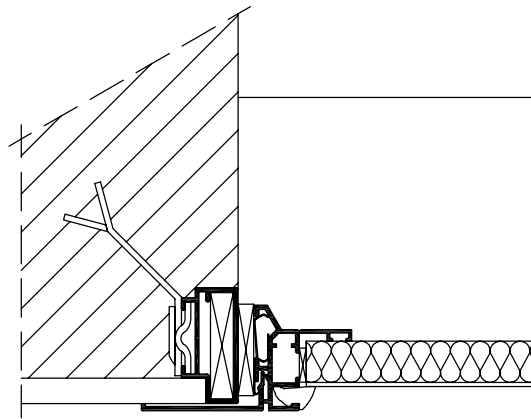
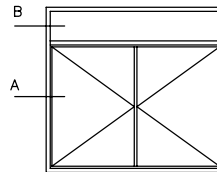
Reveal installation



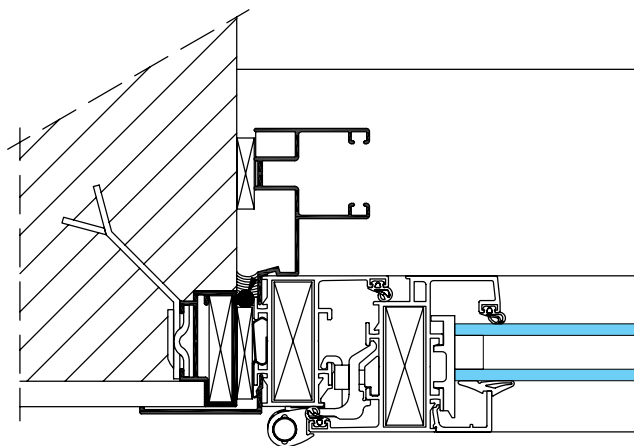
TOPAZE

Installation options

Installation of monobloc roller shutter track



Section B

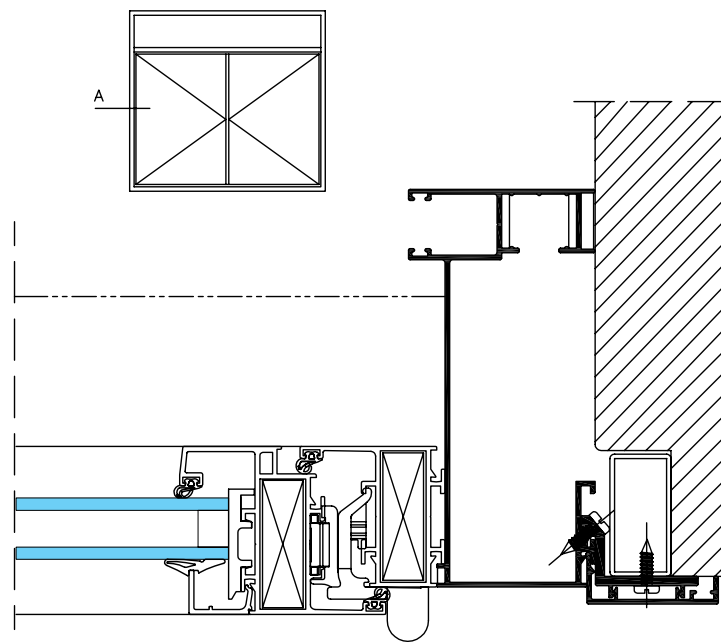


Section A

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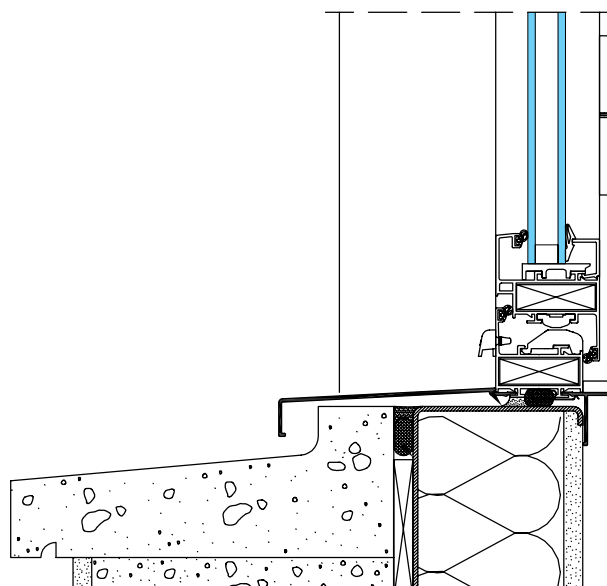
Installation options

Integration of roller shutter on aluminium subframe



Section A

Installation on steel subframe



Performance

WEATHER PERFORMANCE: A.E.V. (A: Air, E: Water, V: Wind)				
Type	Dimensions W x H (m)	A	E	V
TOPAZE				
Single sash window	0,9 x 1,4	4	900	C5
Double sash window	1,4 x 1,4	4	9A	C5
Single sash window on friction stay - outward opening	0,8 x 1,5	4	1050	C5
Double sash window on hinges - outward opening	1,4 x 1,5	4	1200	C4
Horizontal pivot window	1,5 x 1,8	3	1200	C4
Single sash patio door with 3 pts lock	1,1 x 2,35	4	9A	C3
TOPAZE +				
Single sash turn/tilt window	1,5 x 1,7	4	9A	C3
Single sash window	0,9 x 1,6	4	1200	C5

Performance according to European standards and valid for CE marking
Weatherproofing (EN1026 - EN1027 - EN12207 - EN12208 - EN12210 - EN12211)

ACOUSTIC PERFORMANCE					
Type	Glazing	Dimensions W x H (m)	Window		
			Ra	Ra,tr	Rw
TOPAZE					
Turn/tilt window	10.6.4	1,48 x 1,46	37 dB (A)	35 dB (A)	37 dB
Turn/tilt window	4.12.4	1,48 x 1,23	33 dB (A)	29 dB (A)	37 dB
Turn/tilt window	40.31 (FA9/12/10)	1,48 x 1,23	40 dB (A)	38 dB (A)	40 dB
Double sash window	4.12.4	1,48 x 1,46	34 dB (A)	30 dB (A)	35 dB
Double sash window	10.6.4	1,48 x 1,46	38 dB (A)	35 dB (A)	38 dB
Double sash window	40.31 (FA9/12/10)	1,48 x 1,46	39 dB (A)	37 dB (A)	39 dB
Double sash window	6.10.4	1,48 x 1,46	35 dB (A)	32 dB (A)	36 dB

Tested to EN standards (EN - ISO 140 - ISO 177)

According to EN window standards 14351-1, these window performances are valid for:

- Rw+Ctr glazing (for the Ra,tr value) higher or equal than tested glazing values - corrections

- 1 dB for sash area from + 50% to + 100% / - 2 dB from + 100% to + 150% / - 3 dB from + 150% to + 200%



Performance

MAXIMUM DIMENSIONS - TOPAZE OPENING FRAME				
Type		Max. height (m)	Max. width (m)	Max. weight
Inward opening	Single and double sash window	2,2	1	85
	Turn/tilt window with fitting W <600	2,15	0,6	50
	Turn/tilt window with fitting W >600	2,15	1,5	80
	Bottom-hung window	0,9	1,6	60
	Door and patio door - 3-point lock	2,35	1,1	100
Outward opening	Single and double sash window on butt-hinges	2,15	0,9	70
	Single sash window on friction stay	1,5	0,75	45
	Top-hung window	1,8	1,5	120
	Projecting top-hung window	1,2	1,5	60
	Horizontal pivot window	1,8	1,6	80
	Vertical pivot window	1,6	1,8	80

MAXIMUM DIMENSIONS - TOPAZE + OPENING FRAME				
Type		Max. height (m)	Max. width (m)	Max. weight
Inward opening	Single and double sash window	2,2	1	85
	Single and double sash turn/tilt patio door	2,35	1,1	100
	Single and double sash turn/tilt window	2,15	1,5	80
	Patio door - Turn/tilt single and double sash	2,15	1,6	60



Architect: P&T Architects and Engineers Ltd.



Materials and components

As with all TECHNAL® systems, only high quality materials and components are used to ensure low maintenance and long-term performance.

- The aluminium profiles are extruded from 6060 T5 EN 12020, EN 573-3, EN 515 and EN 775-1 to 9 alloys
- The accessories are moulded from Zamak 5 to EN 12844
- The screws are made of stainless steel

Finishes and colours

A wide range of finishes is available to meet the requirements of individual projects, to integrate with existing buildings and to give architects and designers additional design freedom:

- Natural anodised meeting EN 123731: 2001
- Polyester coating finishes in a wide range of colours, compliant with "QUALICOAT" instructions
- TOPAZE is also available in painted finishes in Exclusive TECHNAL® colours for a stylish and contemporary look



1



2



1. Architect: Agence Terreneuve et Adam Yedid - Photography: Daniel Rousselot
2. Architect: P&T Architects and Engineers Ltd.