

# TOPAZE

CONTEMPORARY  
WINDOW

Architect: Opera Architecte  
Photography: J.C. Ballot

IMAGINE WHAT'S NEXT



**TECHNAL**



## TOPAZE

/ CLEAN LINES, SIMPLICITY  
AND ADAPTABILITY

### A COMPLETE RANGE

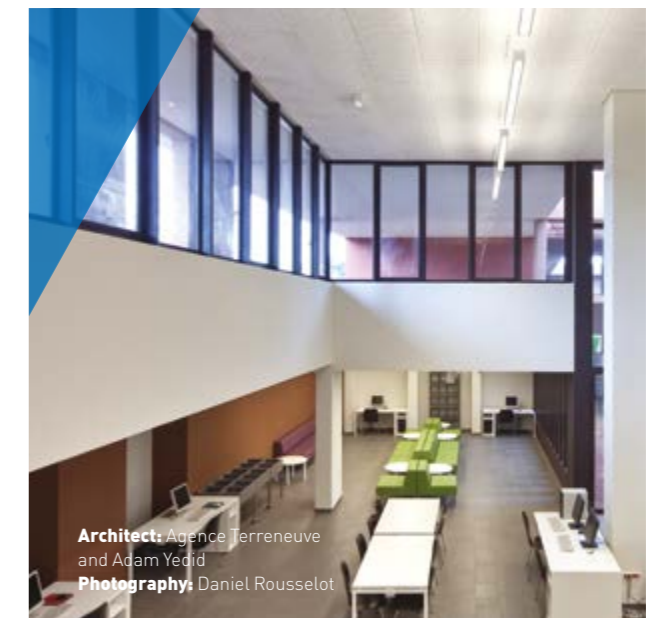
The TOPAZE casement frame is fully integrated within the TOPAZE series with no thermal break. Its wide choice of applications and technical solutions makes it ideal for all types of residential and non-residential projects.

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.



**Architect:** Agence Terreneuve  
and Adam Yedid  
**Photography:** Daniel Rousselot

# 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

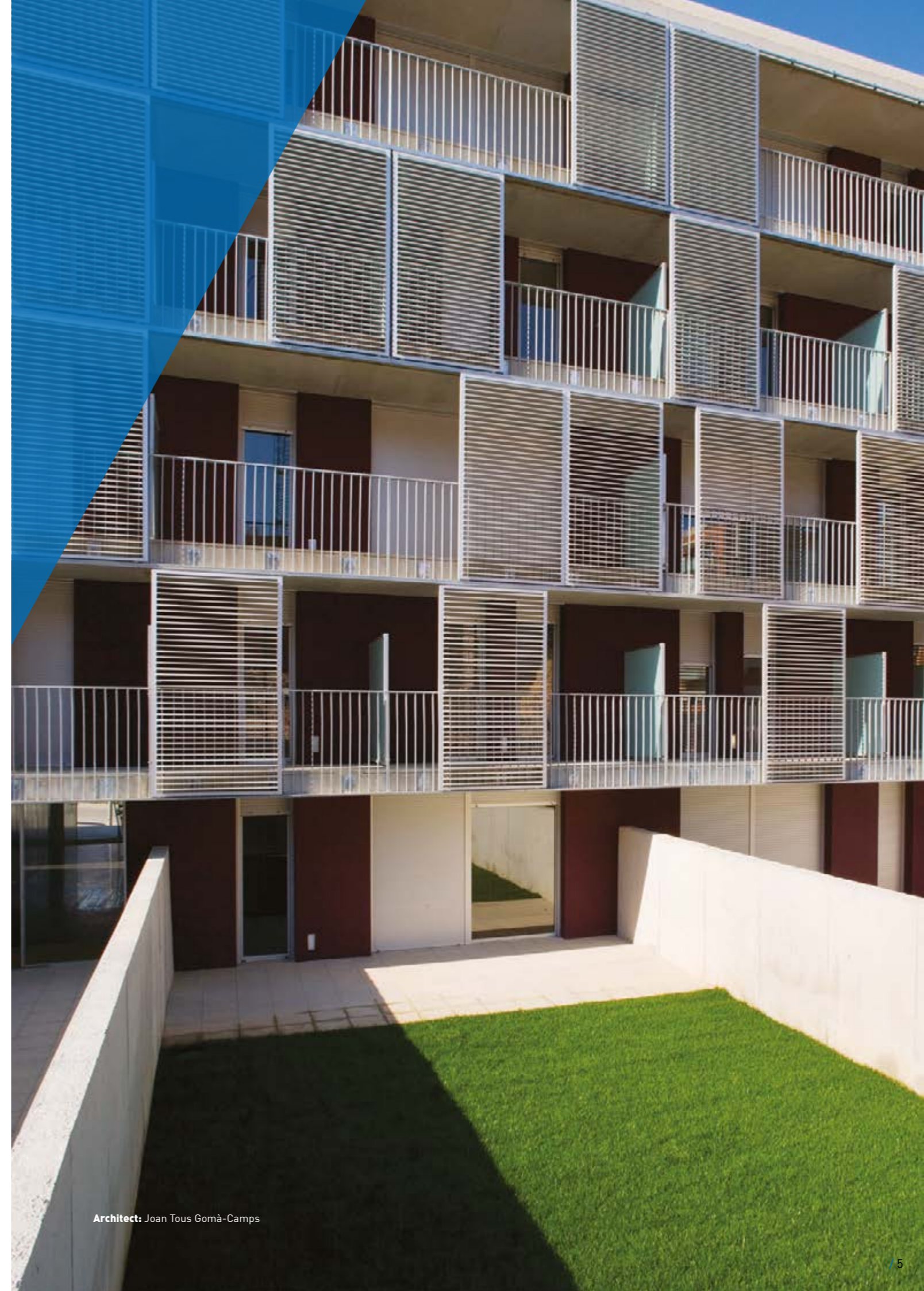
- Windows and patio doors
- Single and double sash
- Inward-opening sashes: patio door, turn/tilt, bottom-hung
- Outward-opening sashes: projecting top-hung, top-hung on butt hinges, side-hung outward-opening
- Special opening sashes: horizontal and vertical pivot
- Composite frames

## TWO VERSIONS OF OPENING SASHES WITH INTERIOR OVERLAP

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

## PERFORMANCE

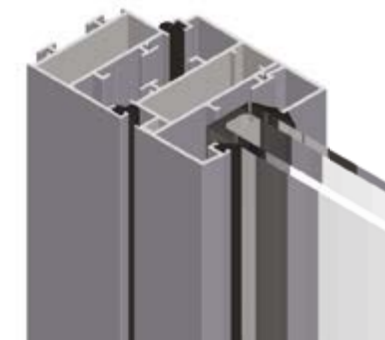
- Weather performance: tested to the EN1026 - EN1027 - EN12211 European standards
- Air permeability: up to 600 Pa (class 4)
- Watertightness: up to 1200 Pa (class 1200A)
- Wind resistance: up to 2000 Pa (class 5)
- Acoustic:  $R_w$  (C; Ctr)  $\leq 38$  dBa (-1; -4) depending on glazing used.





## 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

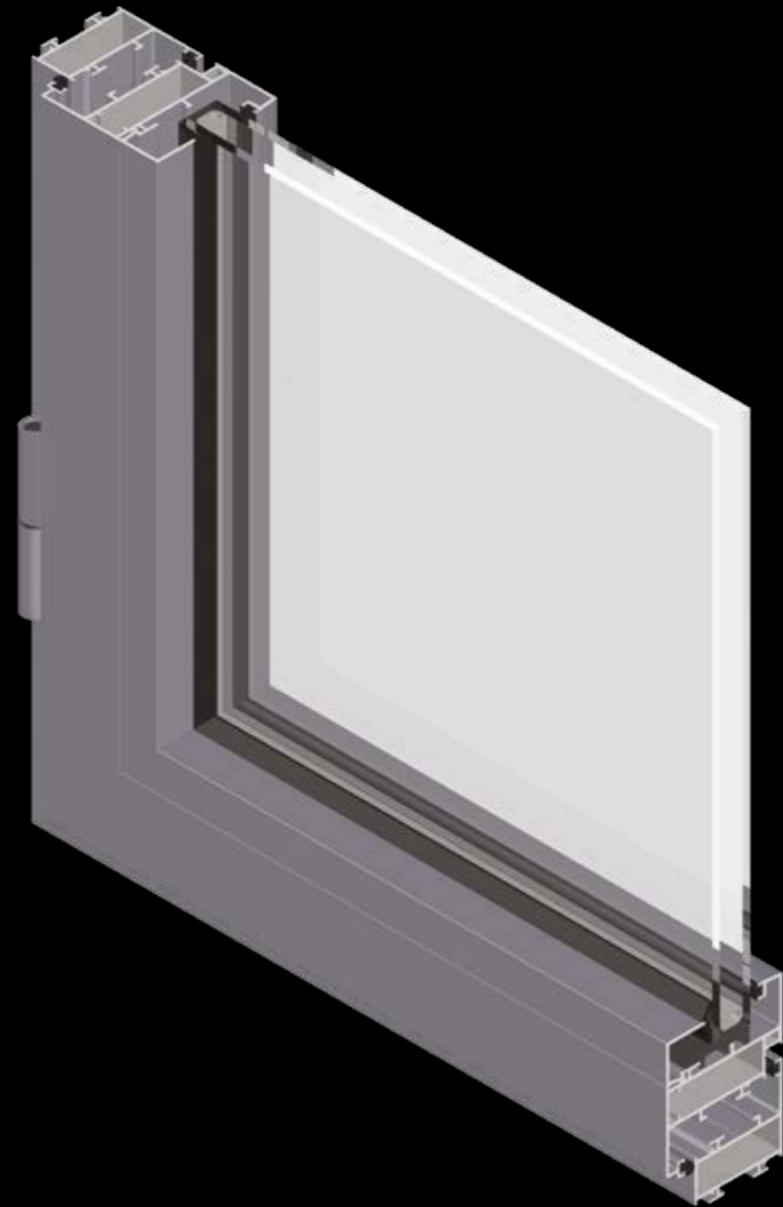


Single espagnolette handle with narrow back plate: outward opening doors and sashes

# TOPAZE / INWARD OPENING

## APPLICATIONS

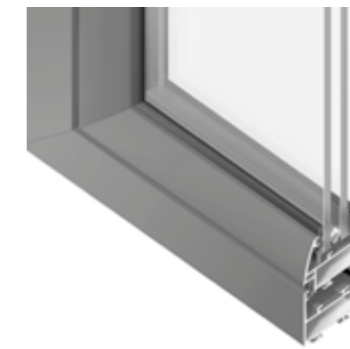
- Windows and patio doors
- Single and double sash
- Composite framing
- Opening:
  - Inward opening
  - Turn/tilt
  - Bottom hung
- Glass thickness capacity: from 6 to 33 mm
- Adjustable hinges



## 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

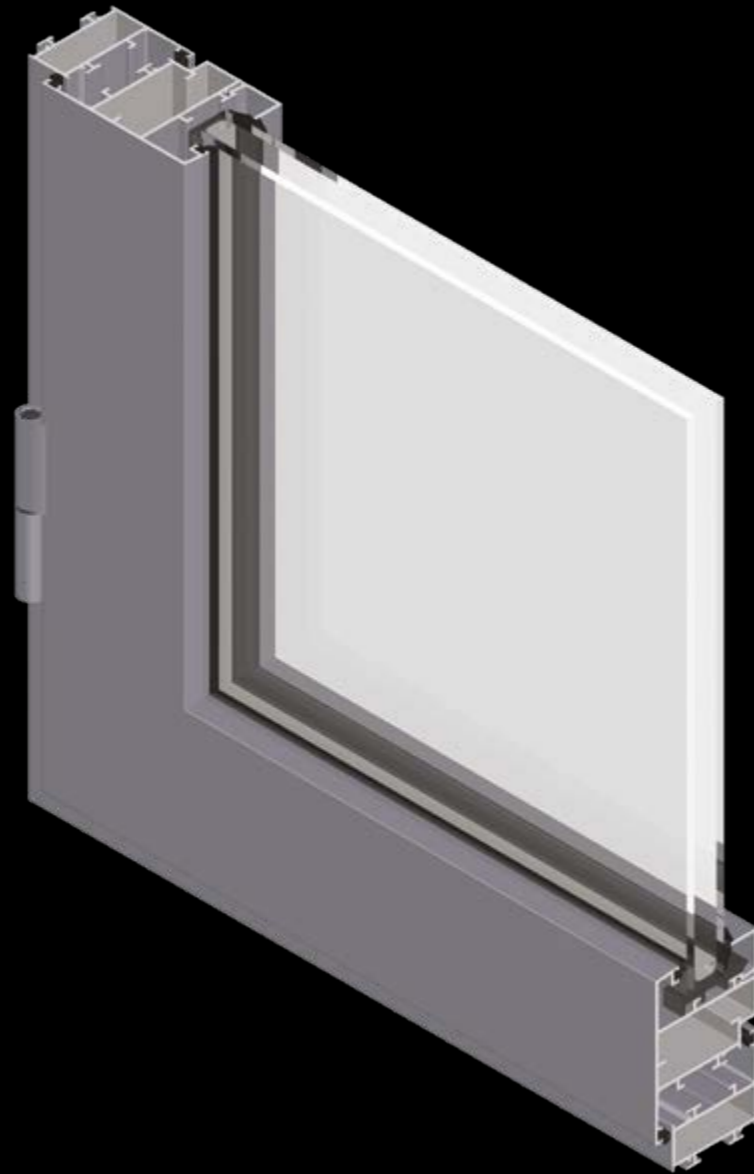


**"Intermediate"** range  
espagnolette and aluminium cover,  
polyamide connector with Secustik®  
system Stainless steel, white, black,  
satin silver. Window, door



**"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

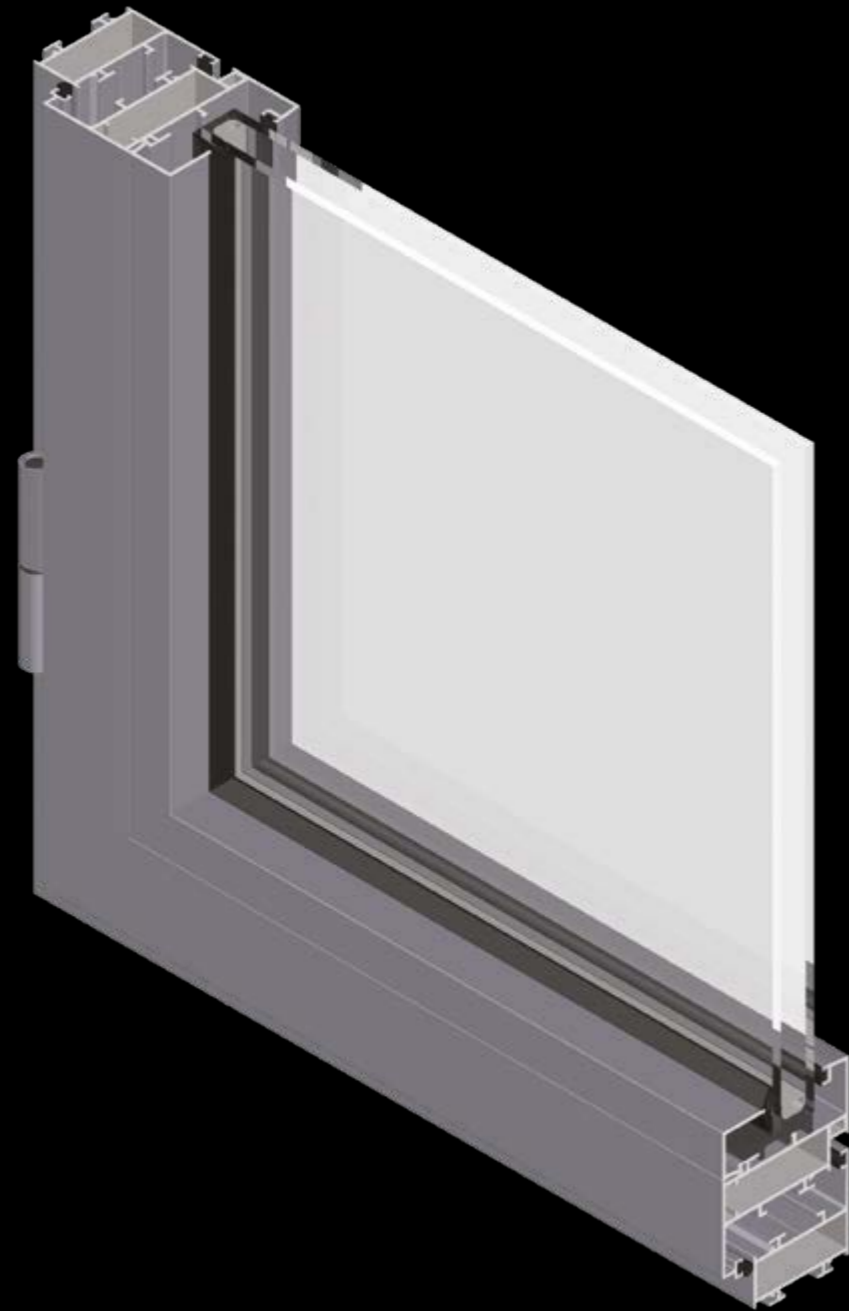
- Weathertightness: tested to European standards EN1026-EN1027-EN12210
- Air permeability: up to 600 Pa (class 4)
- Watertightness: up to 1050 Pa (class 1050A)
- Wind resistance: up to 2000 Pa (class 5)

## 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

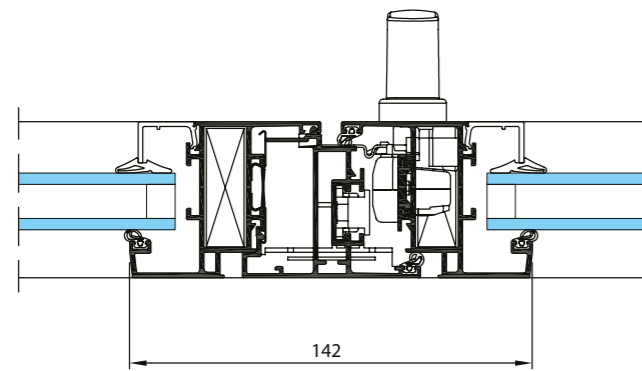
## INWARD OPENING

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

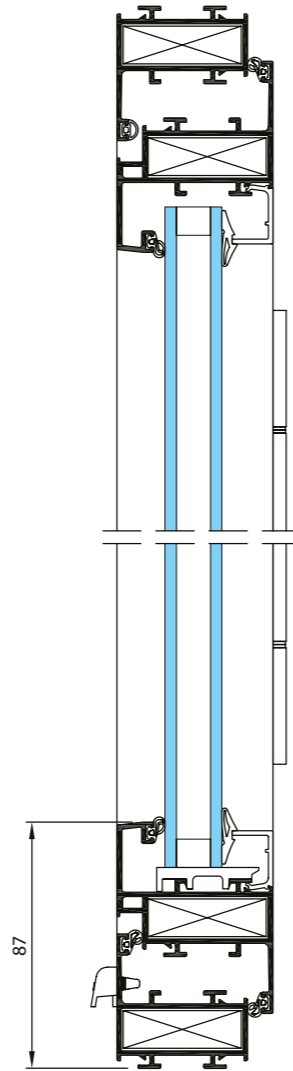


# SECTIONS

TOPAZE  
SINGLE AND DOUBLE SASH WINDOW  
INWARD OPENING, STRAIGHT DESIGN



2-sash central node

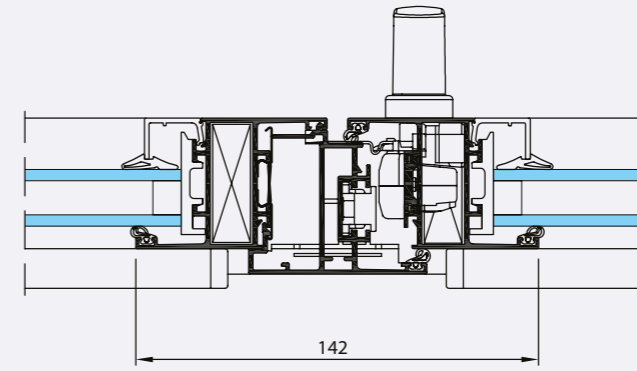


Vertical cross section

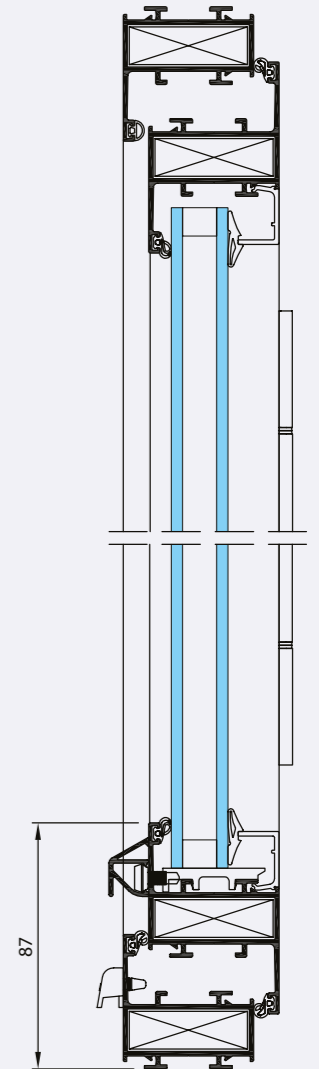


Horizontal cross section

TOPAZE  
SINGLE AND DOUBLE SASH WINDOW,  
INWARD OPENING, BASIC SASH



2-sash central node



Vertical cross section

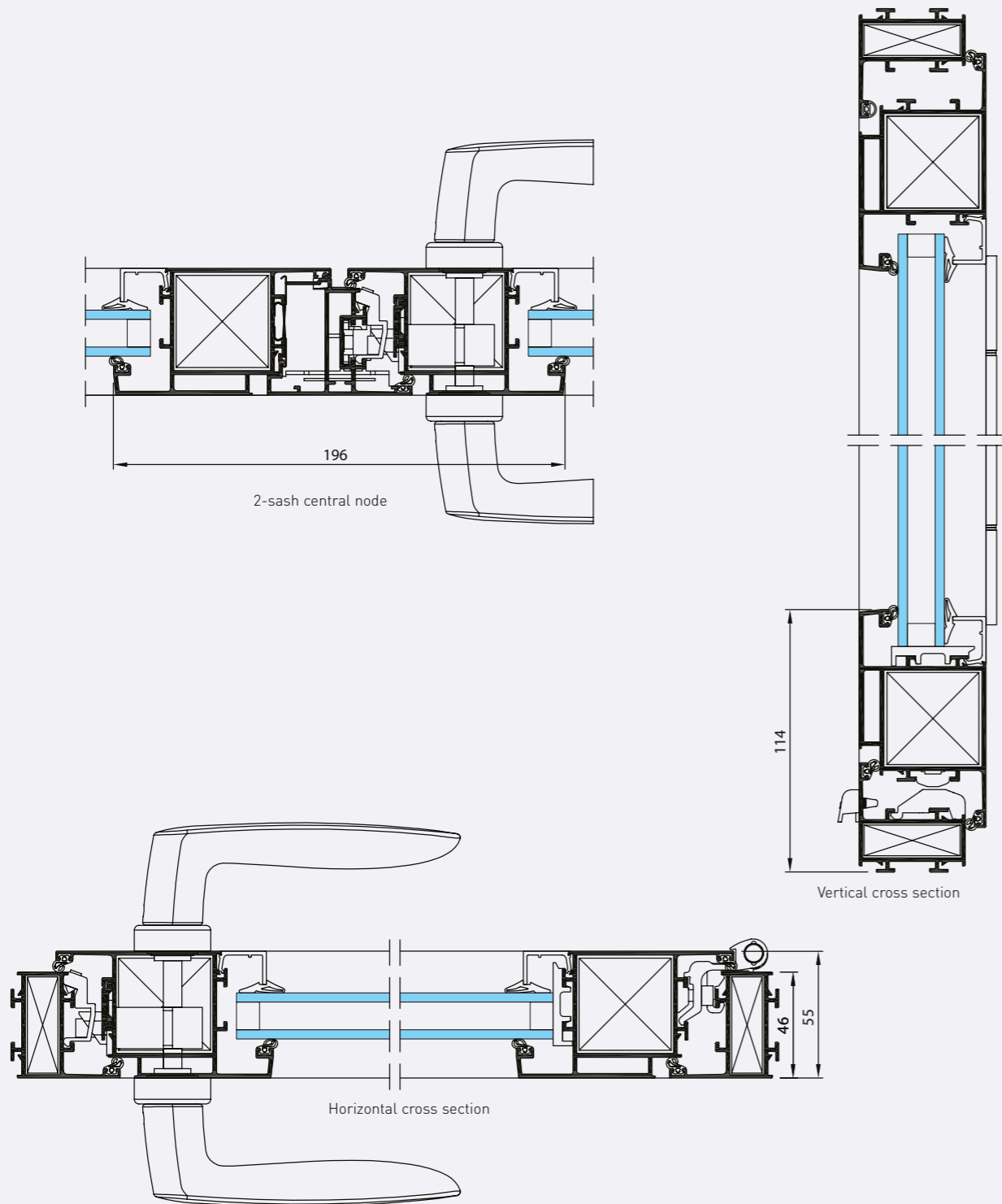


Horizontal cross section

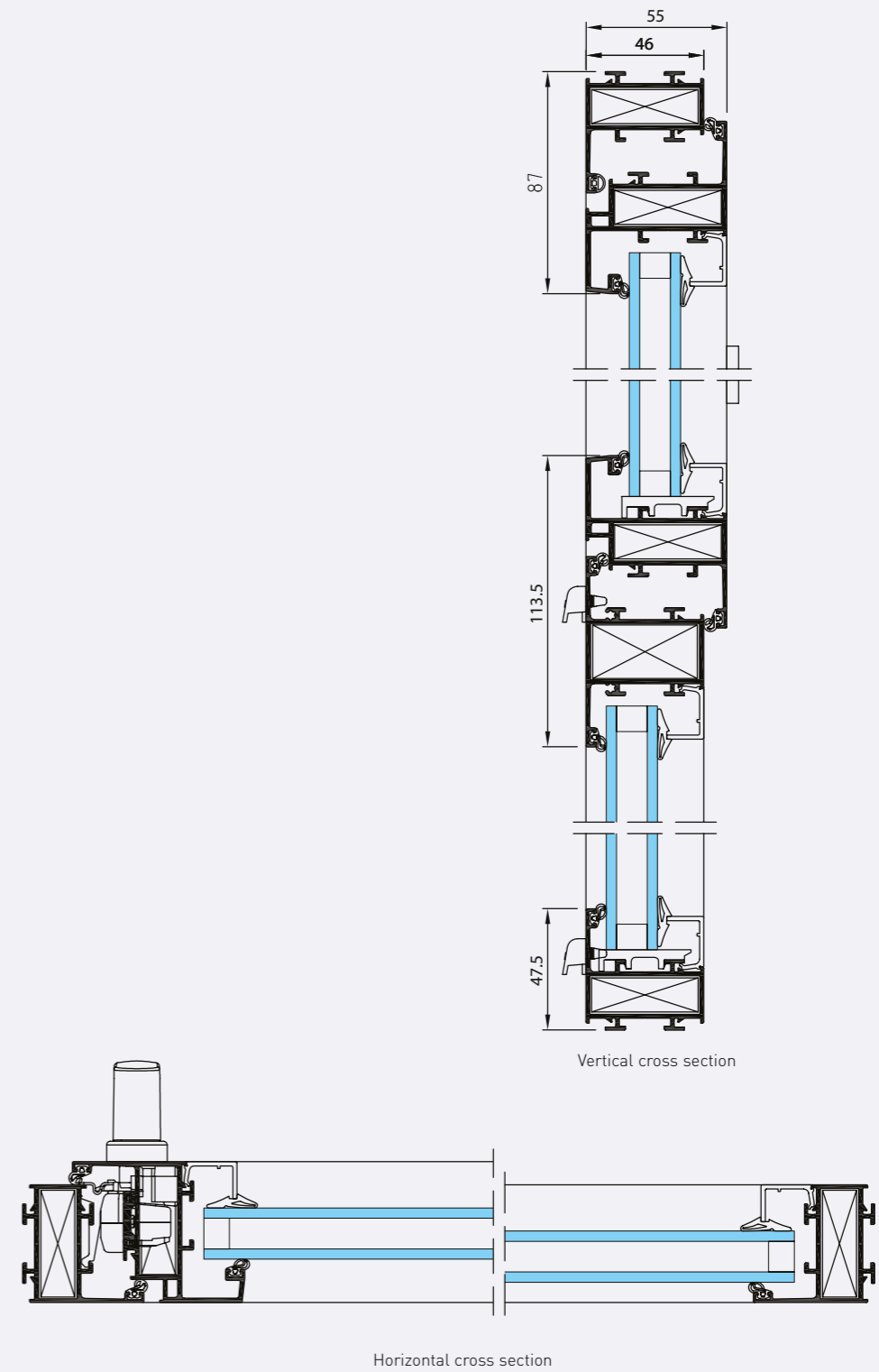


# SECTIONS

TOPAZE  
1 AND 2 SASH PATIO DOOR WITH  
LOCK, INWARD OPENING, STRAIGHT DESIGN

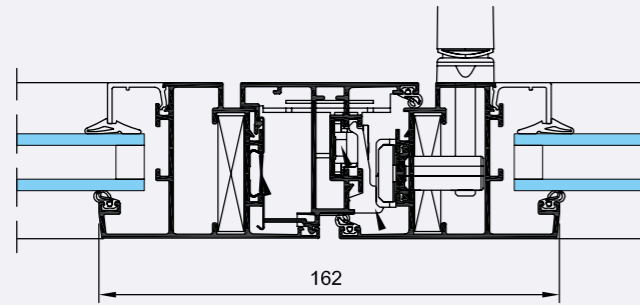


TOPAZE  
COMPOSITE FRAME  
INWARD OPENING

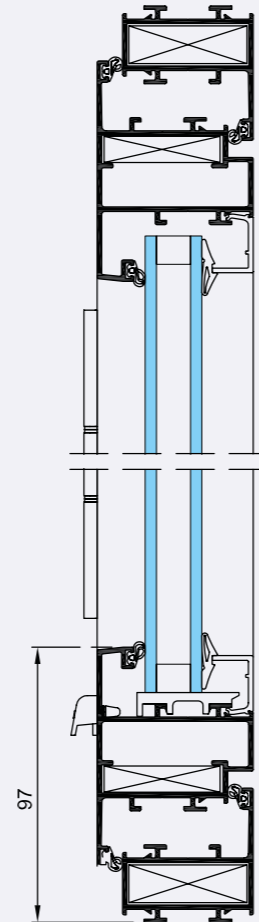


# SECTIONS

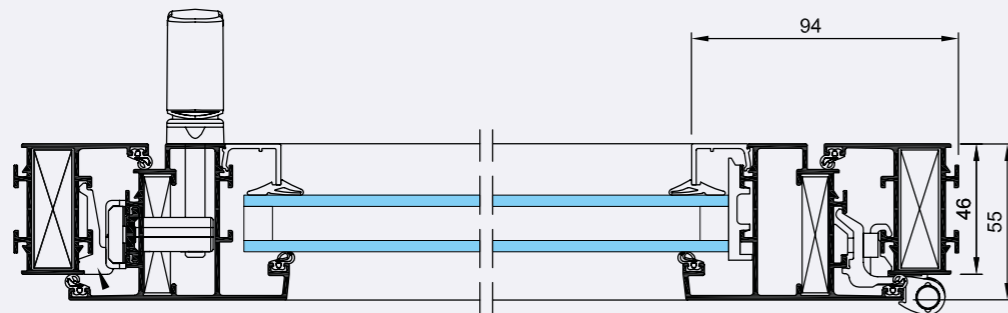
TOPAZE  
SIDE-HUNG WINDOW  
OUTWARD OPENING



2-sash central node

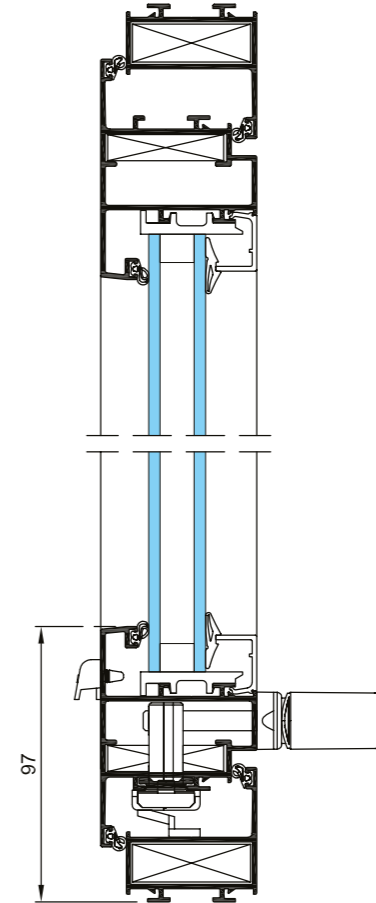


Vertical cross section

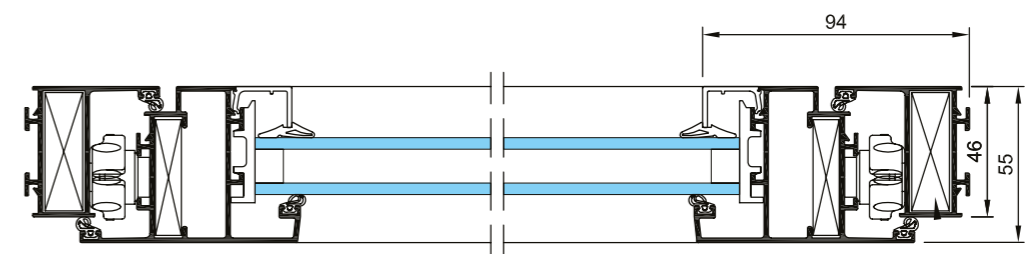


Horizontal cross section

TOPAZE  
TOP-HUNG WINDOW  
OUTWARD OPENING



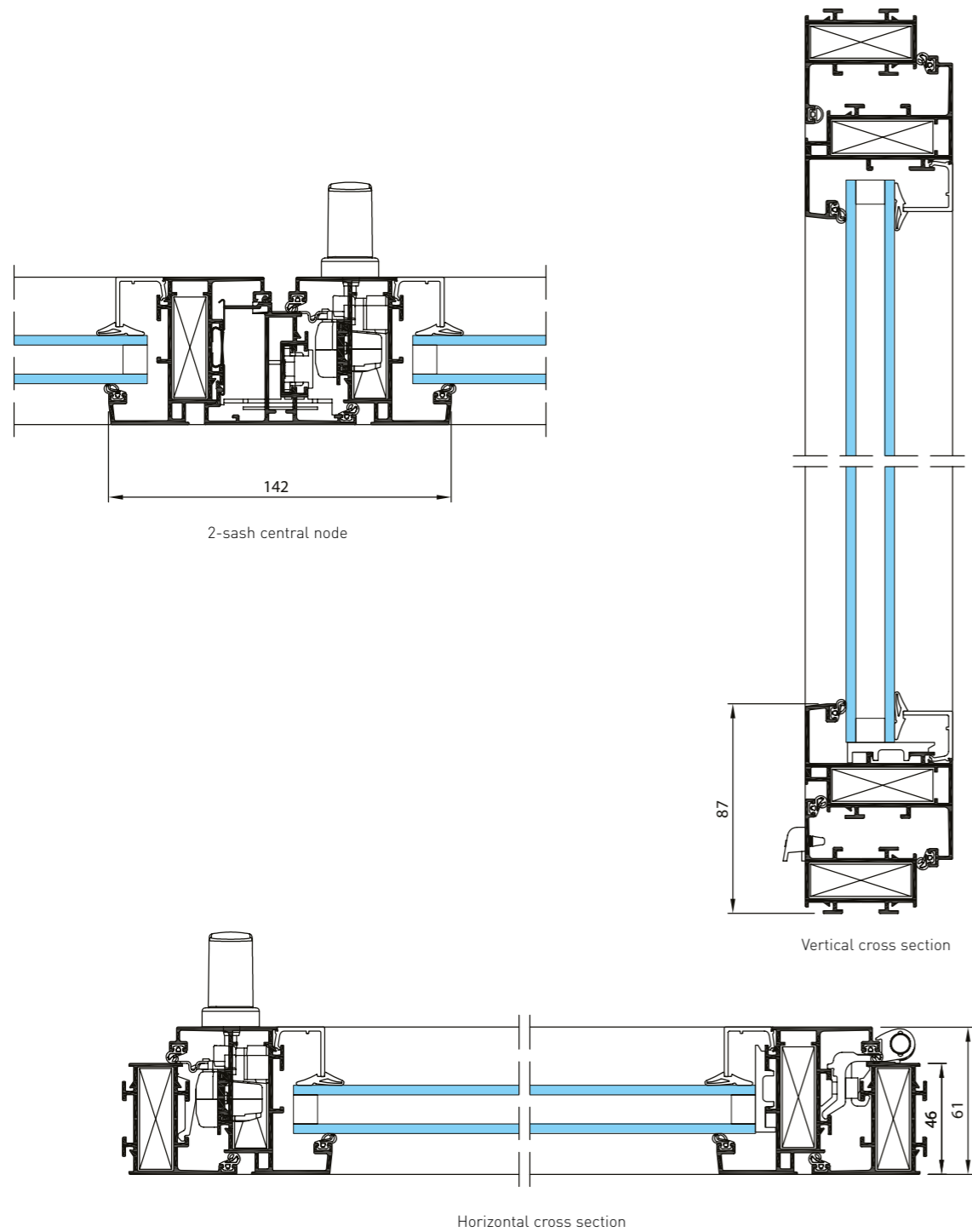
Vertical cross section



Horizontal cross section

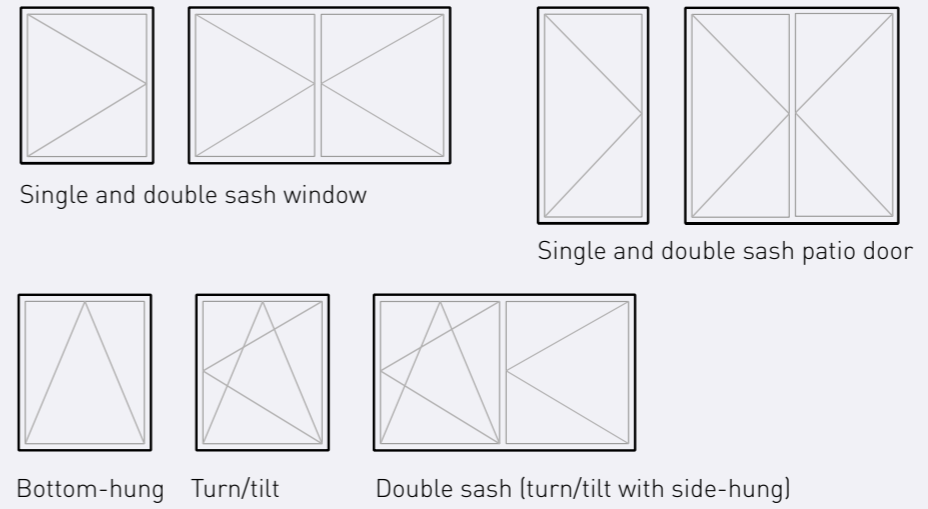
# SECTIONS

TOPAZE +  
SINGLE AND DOUBLE SASH WINDOW

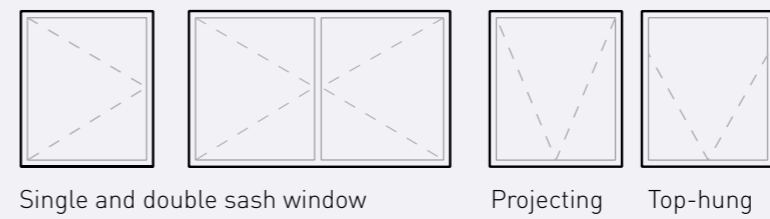


# CONFIGURATIONS

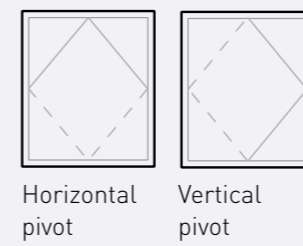
## INWARD OPENING



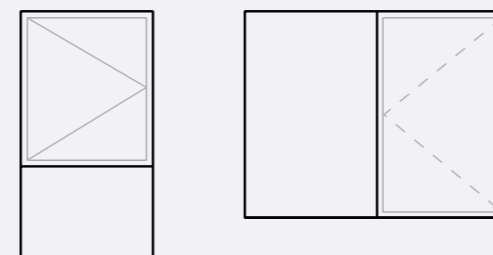
## OUTWARD OPENING



## SPECIAL OPENING SYSTEMS

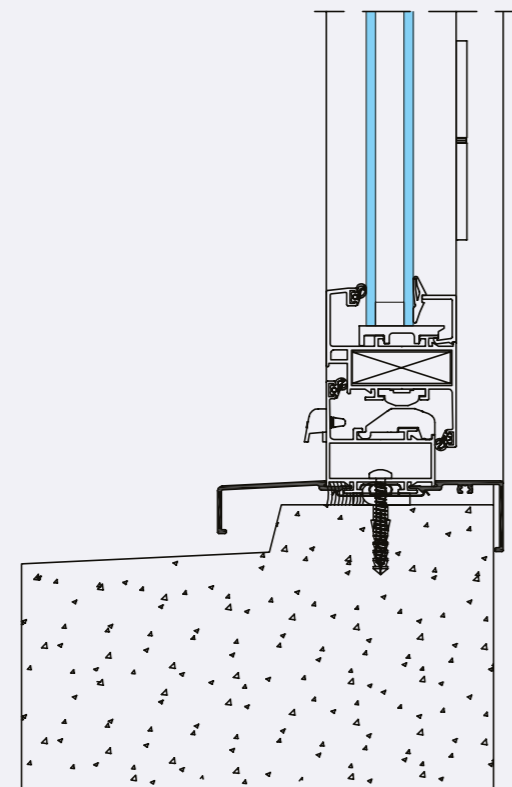
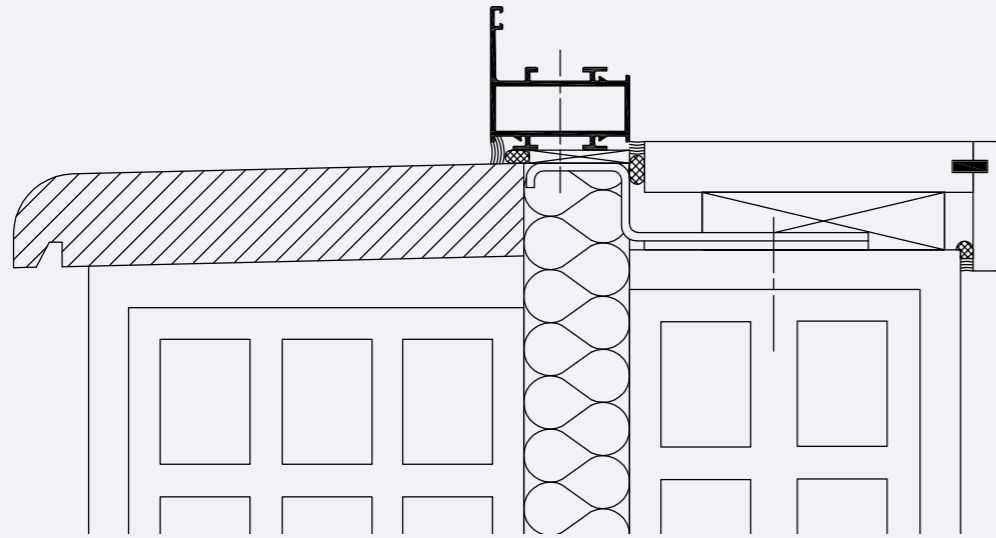


## COMPOSITE FRAMES



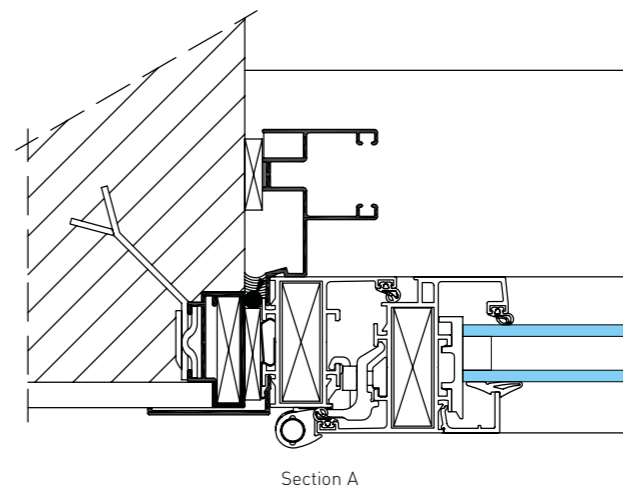
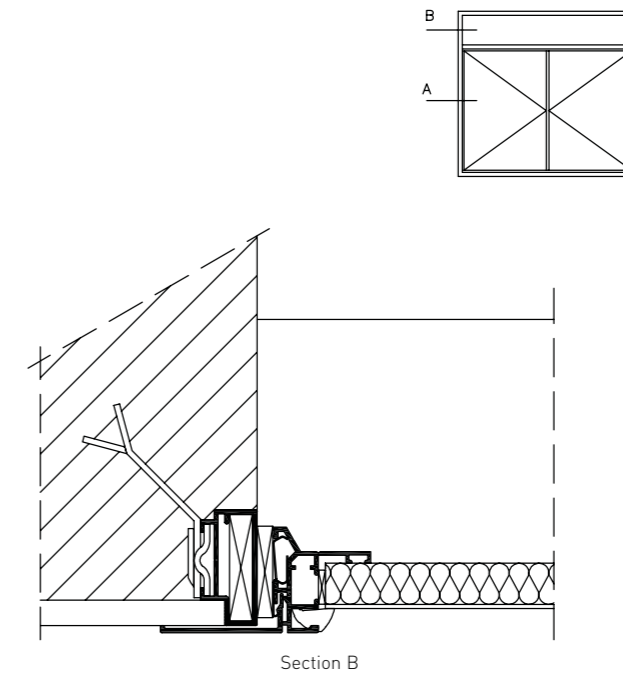
# TOPAZE INSTALLATION OPTIONS

## REVEAL INSTALLATION



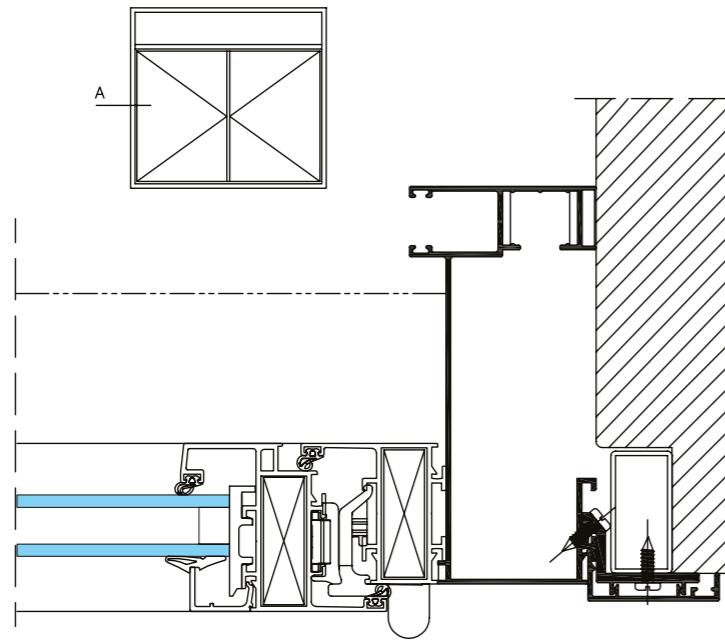
# TOPAZE INSTALLATION OPTIONS

## INSTALLATION OF MONOBLOC ROLLER SHUTTER TRACK



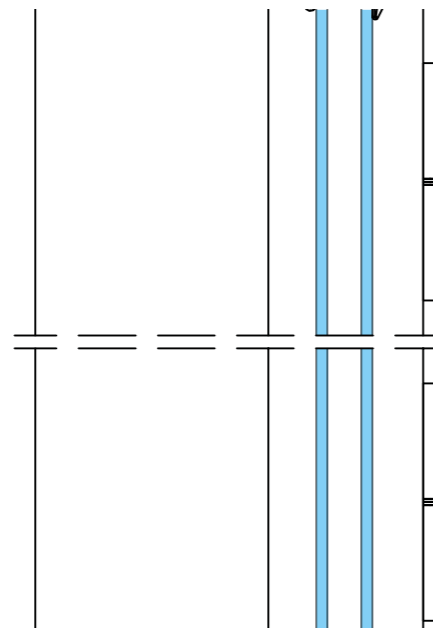
# TOPAZE INSTALLATION OPTIONS

## 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
<b>TOPAZE</b>				
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
<b>TOPAZE +</b>				
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
<b>TOPAZE</b>					
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 the best materials and parts are used to minimise maintenance and ensure long-term performance.

- The aluminium profiles are extruded from alloys 6060 Building compliant with EN 12020, EN 573-3, EN 515 and EN 775-1 to 9.
- Fittings are cast from EN 12844 compliant Zamak 5.
- Screws are made from 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.



IMAGINE WHAT'S NEXT

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By  Hydro