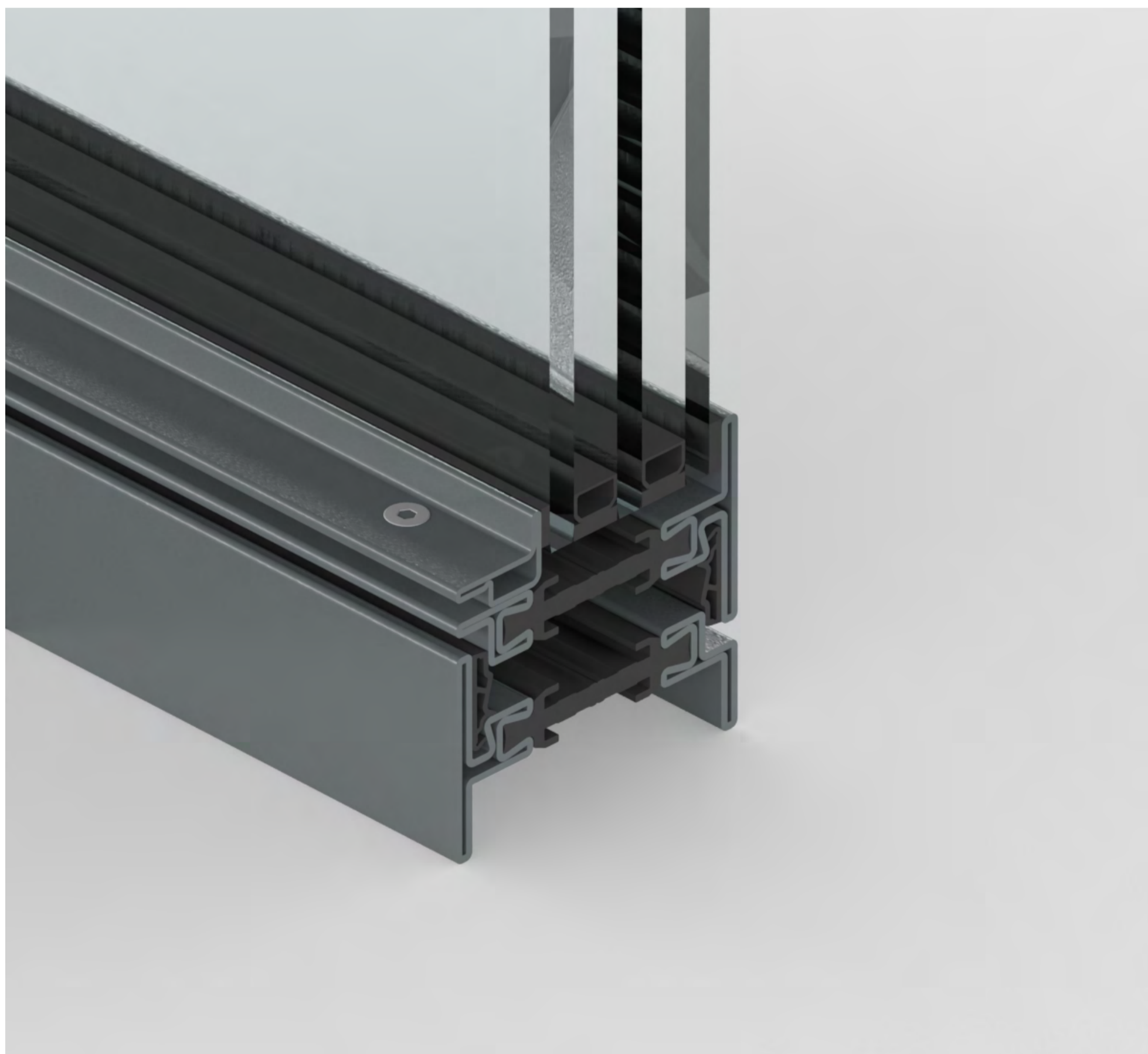


Slimline Steel



G3

State of the art energy efficient
steel windows & doors



Slimline Steel G3

The most advanced steel doors & windows system on the market

Perla Slimline Steel G3 retains the clean, slim profile of the steel product family while delivering exceptional thermal insulation and a maximum vent height of 3m. With both flush and overlapping design options, it includes a highly efficient polyamide insulating core and supports the newest selective insulating glass. This system is ideal for demanding projects, offering high-level aesthetics and performance across all types of windows and doors.

Features



1.00 W/m²K uValue
Most energy efficient steel system available



Up to 3m Vent Height
Largest slimline steel system on the market



RAL Finishes
Powder-coated finishes in any RAL colour



Sound Insulation
Cancels out exterior noise up to 44db (-2.5)



Thermal Barrier
Heat-resistant glass fibre reinforced insulating bars



Burglary Resistance
Tested in accordance with EN 1627 up to RC2



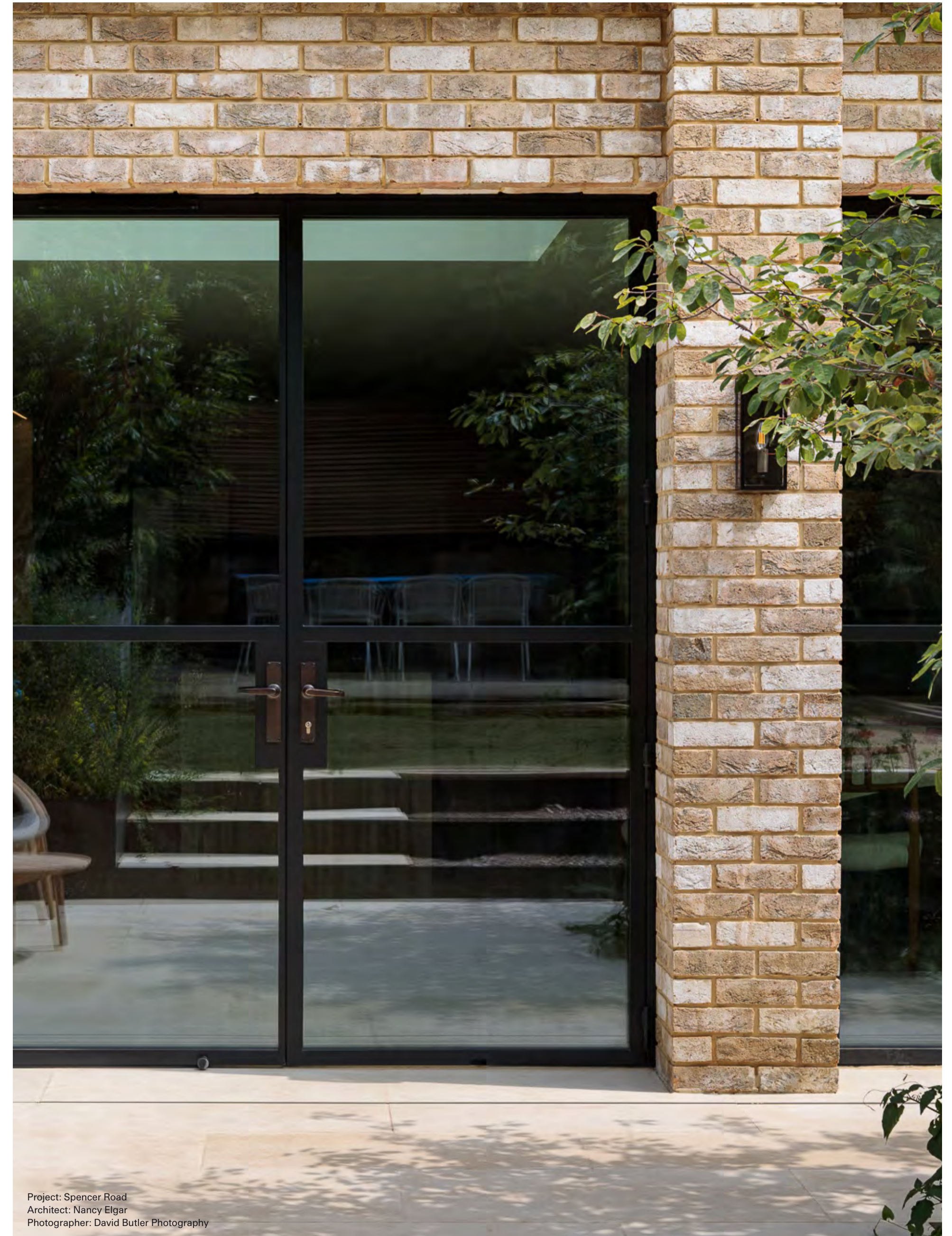
2000Pa Wind Load
Certified C5 Class to meet EN 12210



600Pa Air Permeability
Certified 4 Class to meet EN 12207



600Pa Water Tightness
Certified 9A Class to meet EN 12208



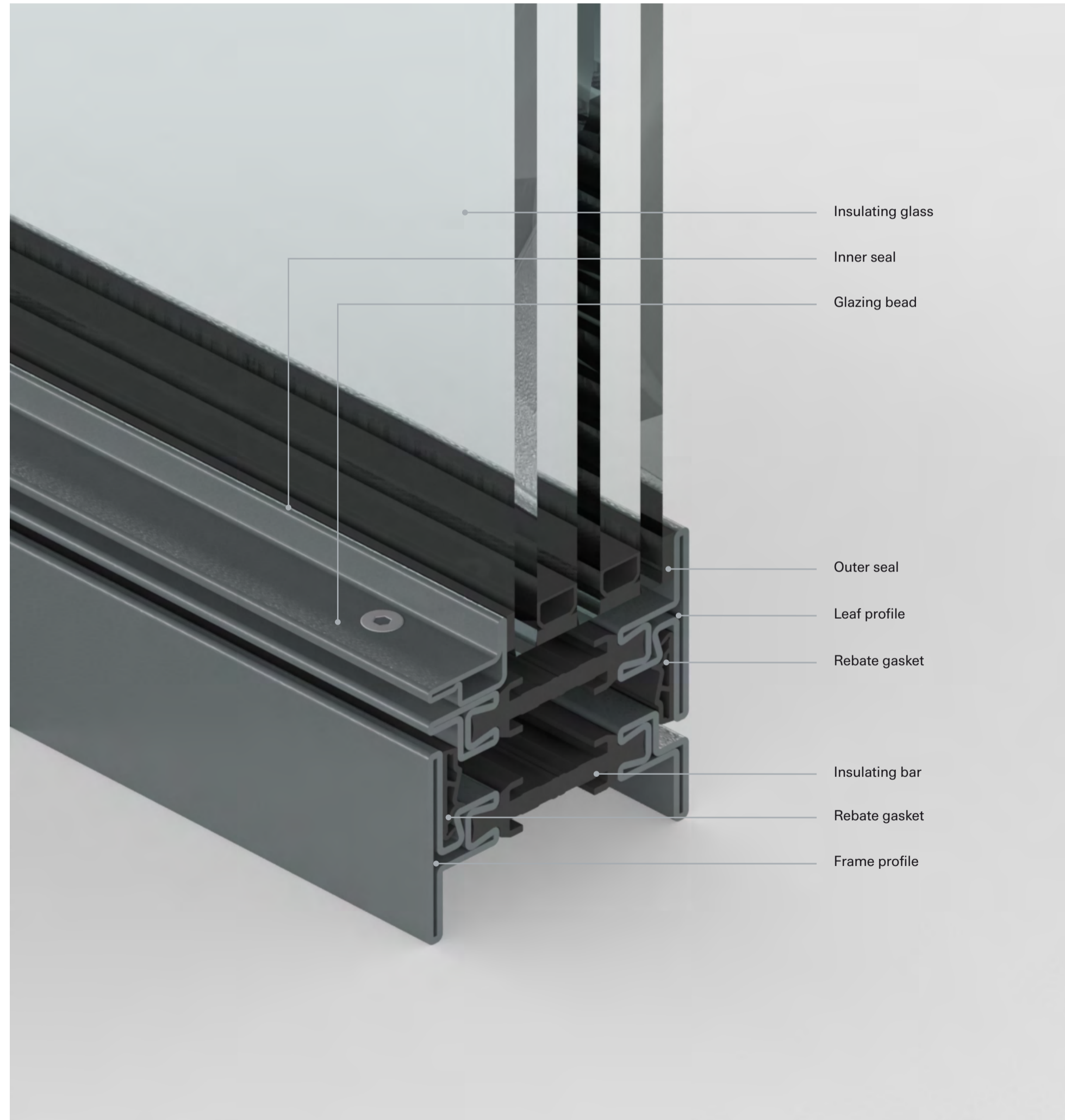
Project: Spencer Road
Architect: Nancy Elgar
Photographer: David Butler Photography

Overview

Perla
Slimline Steel G3
System overview

State of the art profile design and construction

1. Cold formed and sharp-edged 1.5 mm thick galvanized steel profiles – high precision production lines
2. Continuously laser welded profile, high mechanical performance
3. Can be both internally and externally flush or overlapping, or externally flush and internally overlapping
4. Profile depth compatible with insulating glass up to 56 mm
5. Fiberglass-reinforced polyamide insulator
6. Wide range of glazing beads, rectangular, triangular and double “L” shape
7. Epdm co-extruded sealing gaskets
8. Wide choice of specific fittings, including both visible and concealed hinges
9. Side-hung, single and double leaf inward or outward-opening windows and doors. Bottom-hung windows inward-opening. Top-hung and projected top-hung windows, outward-opening. Fixed glazing. Folding doors.



Sleak and slimline profiles

With a construction depth of 75 mm, the face width of the leaf and frame is just 64 mm, adding up to a slim 75 mm in the face plate.

75 mm
profile depth

75 mm
face plate

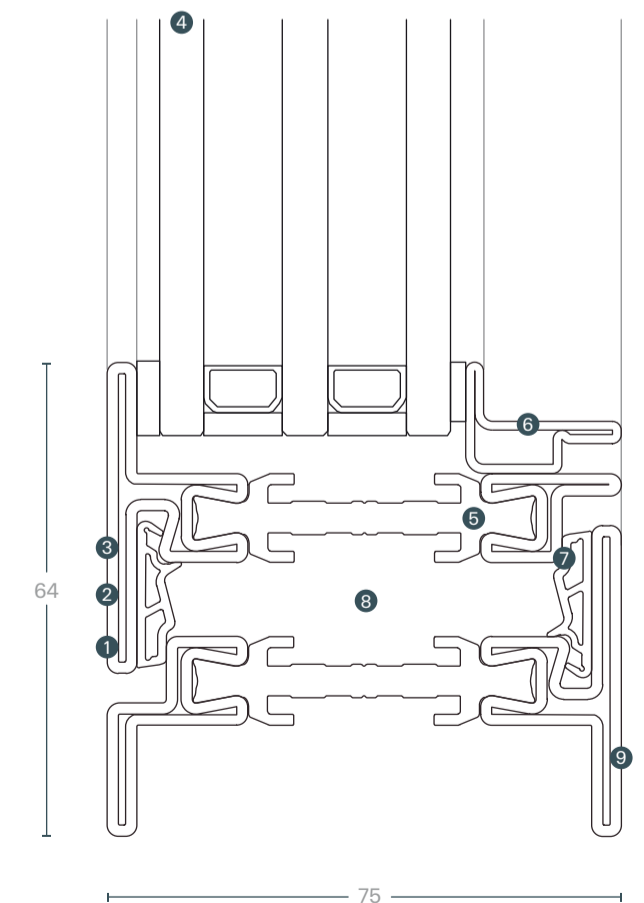
Maximum dimensions

Element sizes of up to 1200 mm width x 3000 mm height per leaf (max. 190 kg leaf weight)

120 cm
max. leaf width

300 cm
max. leaf height

190 kg
max. leaf weight



Drawing scale 1:1

Finishes

Perla
Slimline Steel G3
Materials & Finishes

Powder Coated Steel

A versatile canvas to express your style without limits

Coating steel, including stainless steel, fulfills two key roles. Technically, it boosts the material's resistance to corrosion, while design-wise, it opens up endless possibilities for customization. This enables the creation of frames that align seamlessly with any architectural aesthetic. From traditional RAL colours to innovative, textured finishes, coated steel merges steel's strength with superior visual and mechanical qualities.

Classic Steel

Natural uniform texture with a distinctive raw character

Cold-rolled steel profiles – whether galvanized or bright – feature a consistent texture that is ideal for a variety of finishes. Techniques like light brushing or blackening offer an alternative to traditional painting, providing a high degree of customization for the frame. The corners of cold-rolled steel doors and windows are always welded. Depending on the desired look, welds can be ground flat, left in their natural state, or highlighted with brushing or blackened using specialized patinas.

Cor-Ten Steel

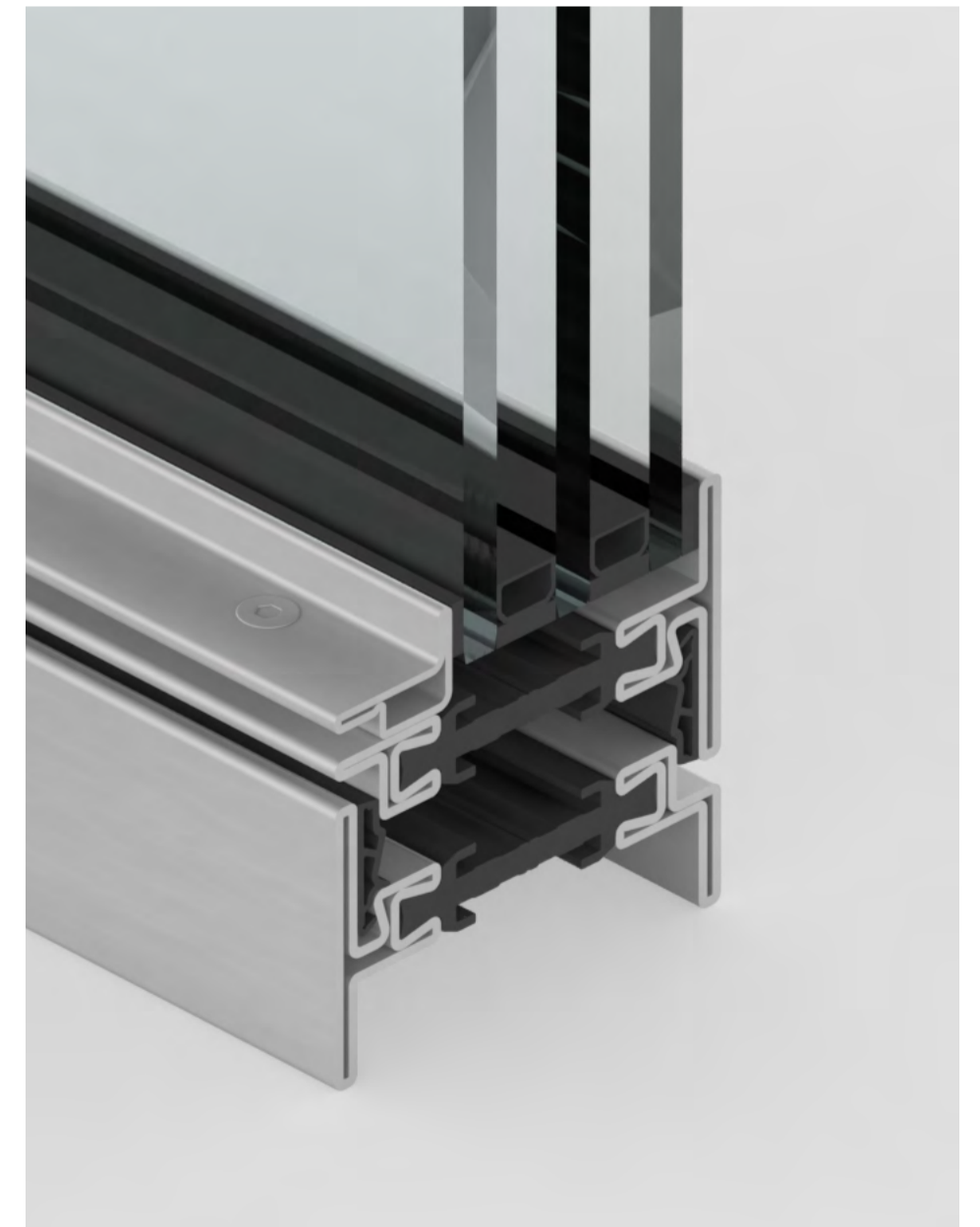
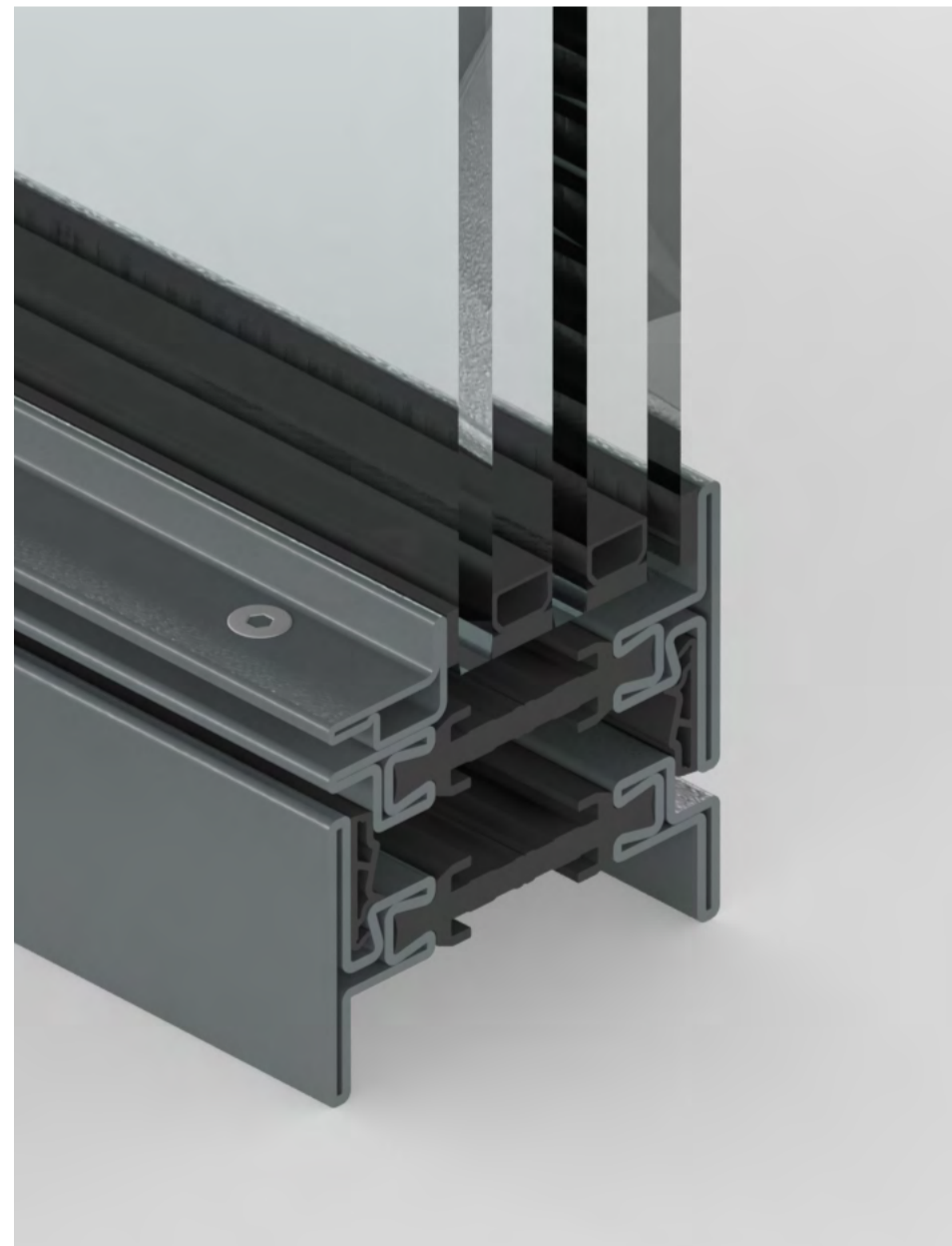
The ultimate combination of durability, hardness and style

Cor-Ten is a material celebrated for its remarkable visual impact and refined elegance, making it highly sought after for windows and doors in renovation and restoration projects. As a natural, living material, Cor-Ten takes on distinctive shades through its exposure to the elements. The oxidation process can be regulated with periodic applications of waxes or oils. The corners of the frames are welded, with the welding marks either left in their raw form or smoothed flat for a polished finish.

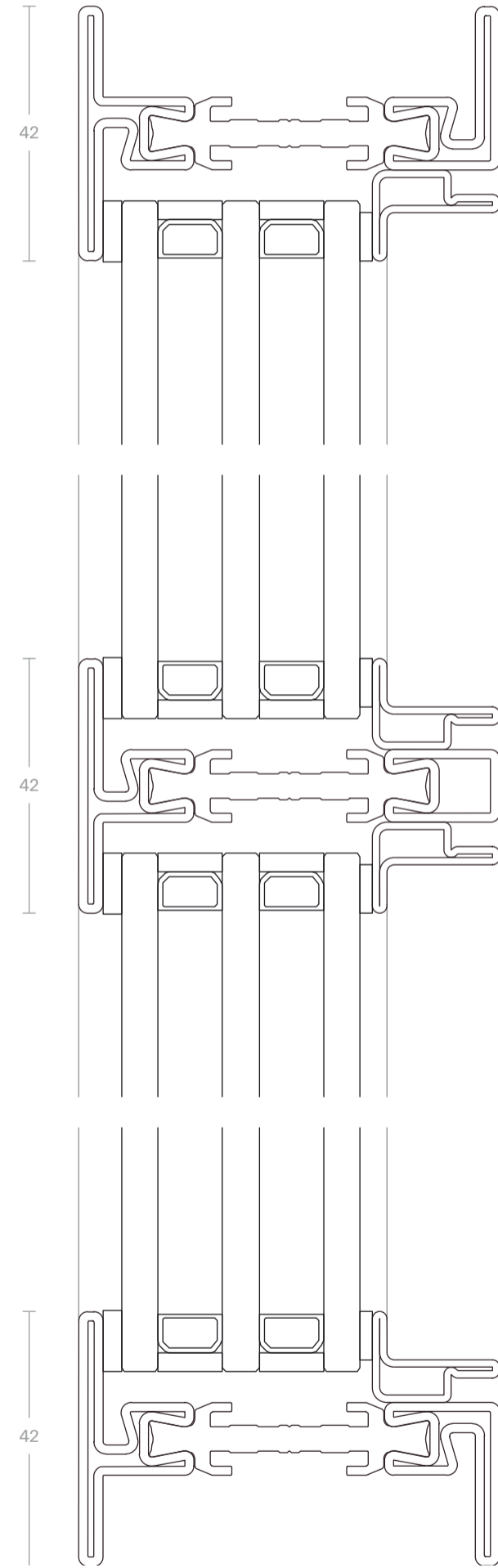
Stainless Steel

Unique, captivating and the highest expression of luxury

With its exceptional technical properties and long-lasting durability, stainless steel is a material of great popularity. Known for its metallic sheen, stainless steel allows for a wide range of design options, including finishes like black stainless steel. The natural and evocative texture of black stainless steel adds an exclusive character to windows and doors. The corners of windows and doors made from cold-rolled stainless steel profiles are welded, ground flat, and polished for a flawless finish.



Mullions



TDL mullions

Timeless industrial style and seamless construction

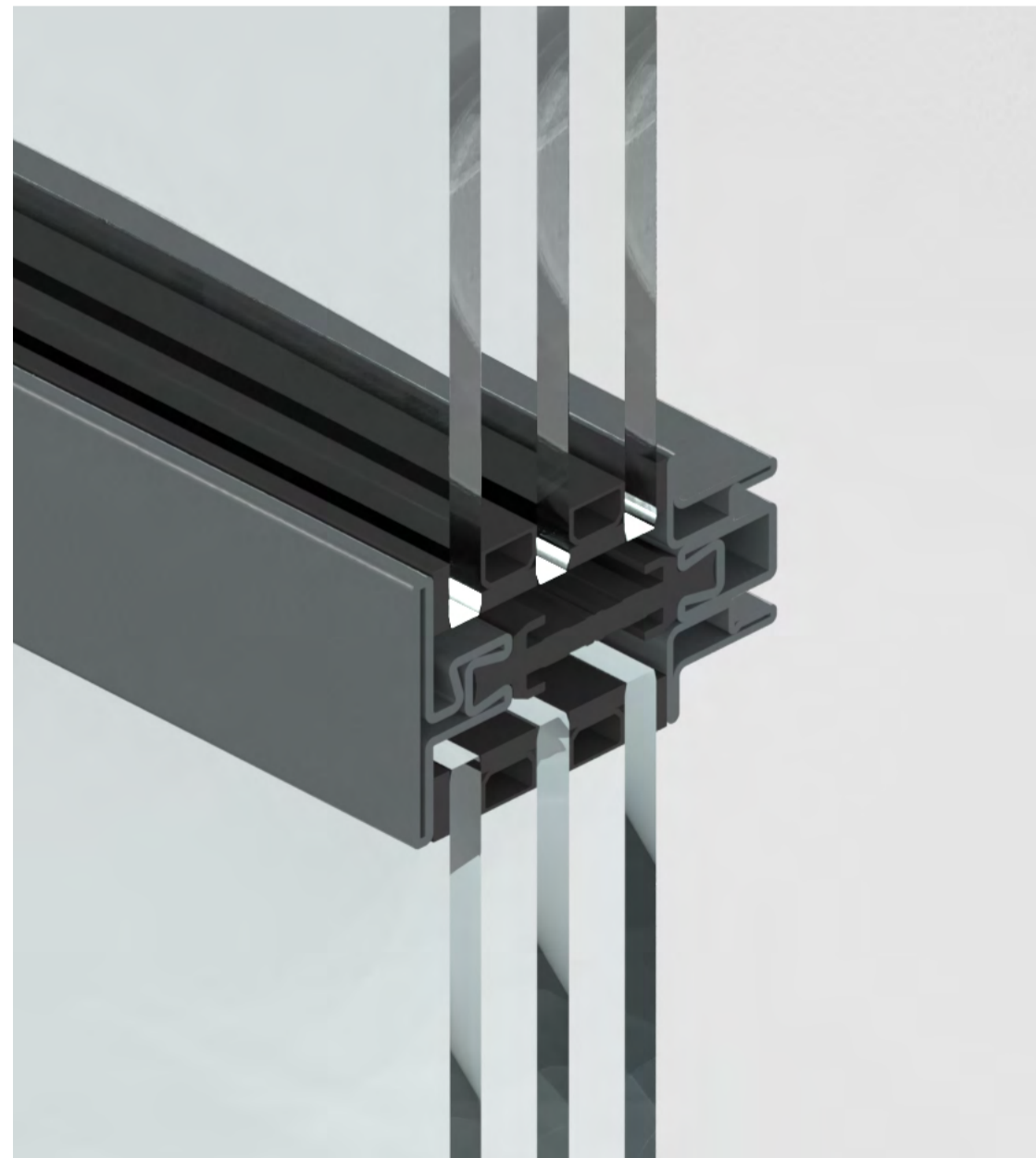
TDL mullions are a fundamental feature of the frame, designed to break up the depth of the frame and separate the glazing sections.

The interface between TDL mullions and the frame is flawlessly seamless, with joints that are expertly welded, polished, and finished to ensure a smooth, unified appearance with no visible seams.

While TDL mullions can support a wide range of design patterns, special attention should be given to glass size and weight. Ensuring the configurations are not top-heavy is essential for structural balance.

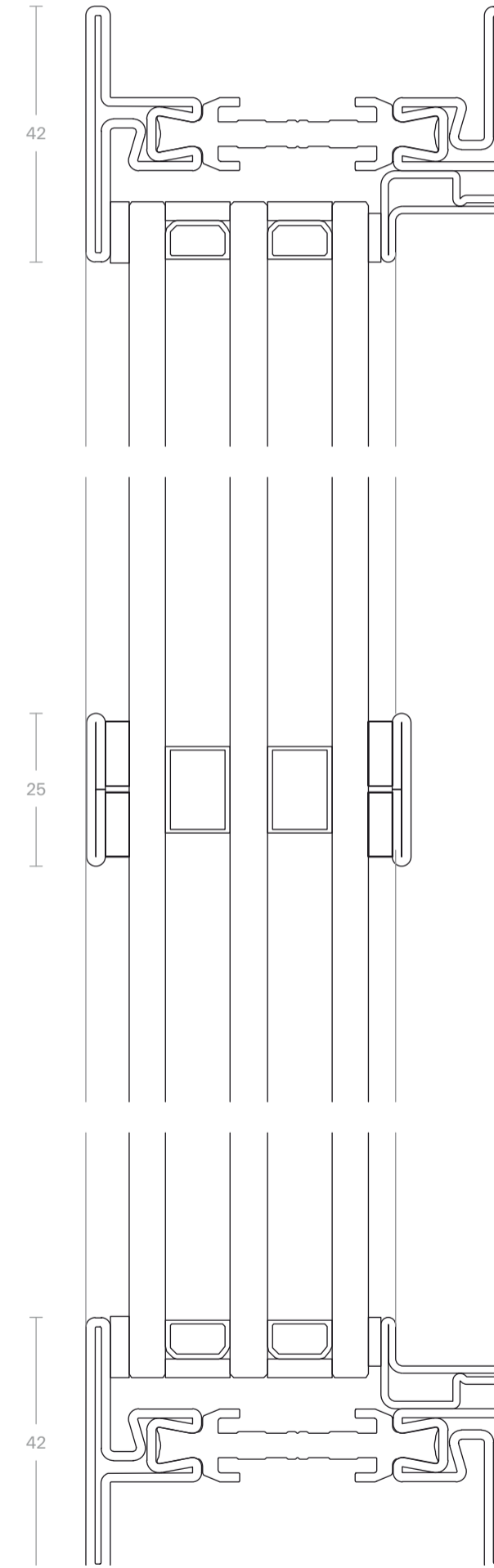
300 cm
max. leaf height

42 mm
glazing bar



Drawing scale 1:1

Perla Slimline Steel G3 Design options



SDL mullions

Total design freedom with the slimmest sightlines

SDL mullions feature a glazing bar that is adhered directly to the surface of the glass unit. The glazing unit is full-sized, completely filling the frame, with the glazing bars applied in any configuration. The patterns can be as intricate as needed or tailored to match the design of existing buildings.

In contrast to TDL mullions, which are seamlessly welded to the frame, SDL mullions display a small joint between the glazing bar and the outer frame. The glazing bar sits flat against the glass, while the surrounding frame has a slight relief, creating a subtle distinction between the two elements.

300 cm
max. leaf height

25 mm
glazing bar

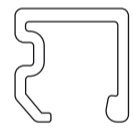


Drawing scale 1:1

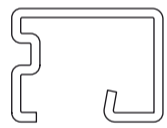
Glazing Beads

Perla
Slimline Steel G3
Design options

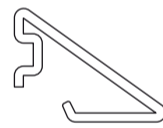
G3 1515R
Material Aluminium
Dimensions 20mm (w) × 15mm (h)
Finishes Powder coated



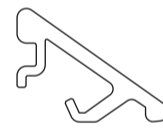
G3 1520R
Material Aluminium
Dimensions 20mm (w) × 15mm (h)
Finishes Powder coated



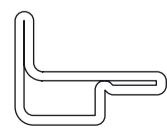
G3 1520S
Material Aluminium
Dimensions 20mm (w) × 15mm (h)
Finishes Powder coated



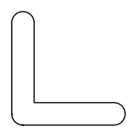
G3 1520S-02
Material Aluminium
Dimensions 20mm (w) × 15mm (h)
Finishes Powder coated



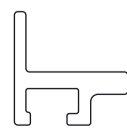
G3 1520E
Material Steel
Dimensions 20mm (w) × 15mm (h)
Finishes Raw, powder coated



G3 1515A
Material Steel
Dimensions 20mm (w) × 15mm (h)
Finishes Raw, powder coated



G3 1515E
Material Steel
Dimensions 20mm (w) × 15mm (h)
Finishes Raw, powder coated



Hinges

Perla
Slimline Steel G3
Design options

3D weld-on hinge
16mm(w) × 122mm (h)

Stainless steel / classic steel profiles

3D Screw-on hinge
Material Steel
Dimensions 16mm (w) × 122mm (h)
Finishes Raw, powder coated



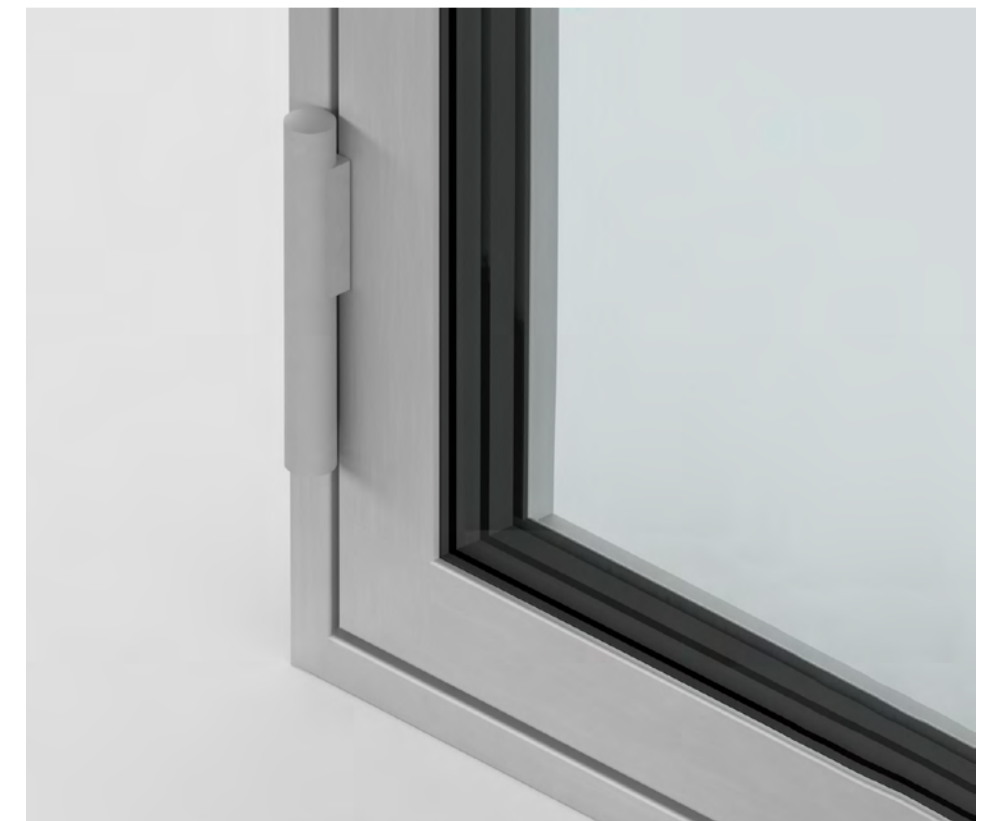
3D Screw-on hinge
Material Stainless steel
Dimensions 16mm (w) × 122mm (h)
Finishes Raw, powder coated



3D Screw-on hinge
Material Steel
Dimensions 16mm (w) × 122mm (h)
Finishes Raw, powder coated

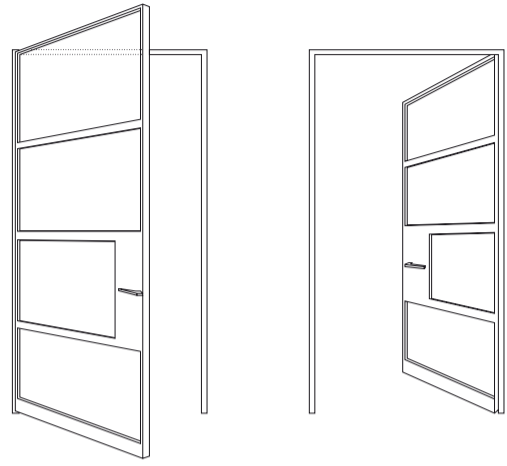


3D Screw-on hinge
Material Stainless steel
Dimensions 16mm (w) × 122mm (h)
Finishes Raw, powder coated

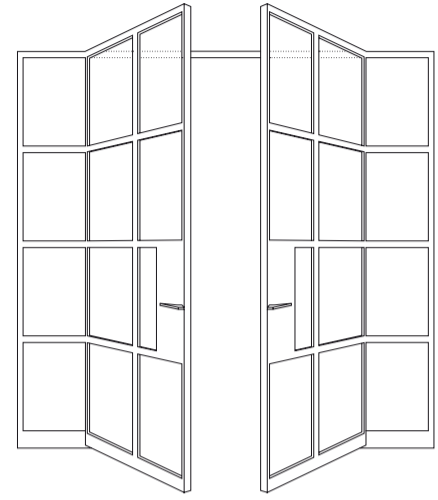


Doors & windows
Type overview

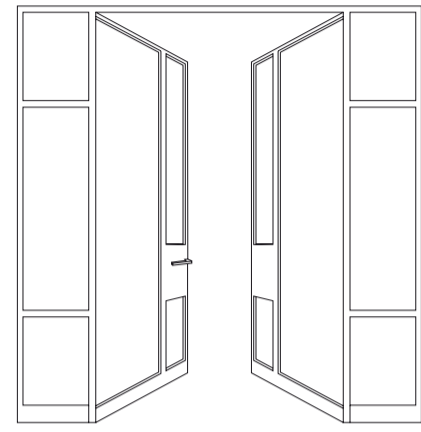
Perla
Slimline Steel G3
Type overview & dimensions



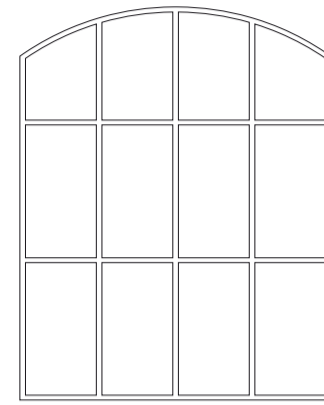
Single leaf inward / outward opening door



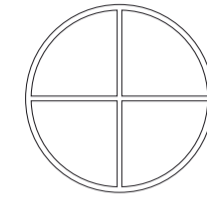
Double leaf inward opening door with side lights



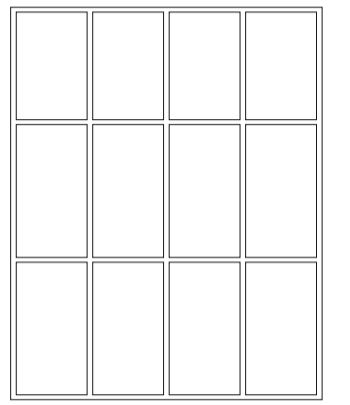
Double leaf outward opening door with side lights



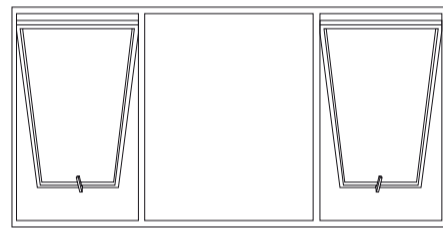
Fixed Glazing



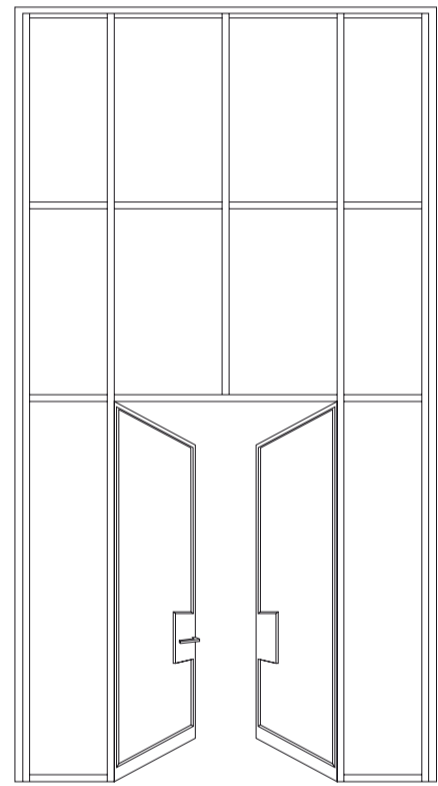
Fixed Glazing



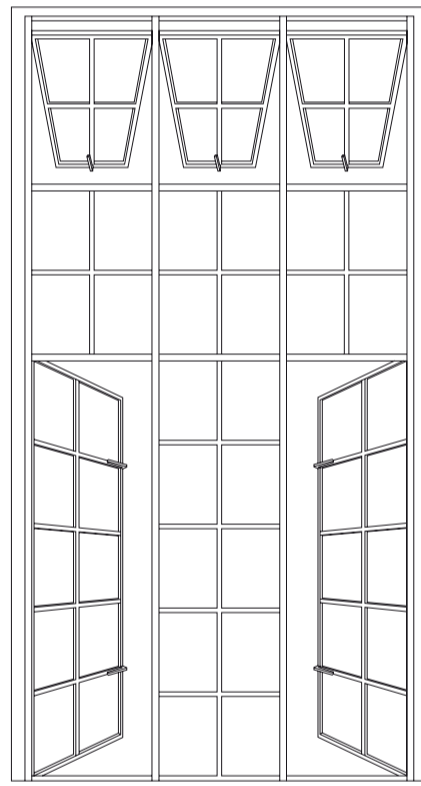
Fixed Glazing



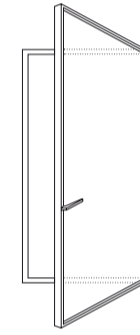
Fixed glazing with single leaf inward opening door with top hung windows



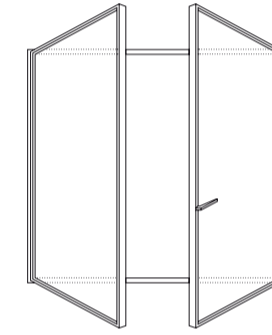
Curtain wall with double leaf outward opening door and top hung windows



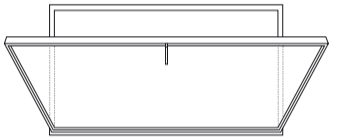
Industrial sidewall windows and historical curtain walls



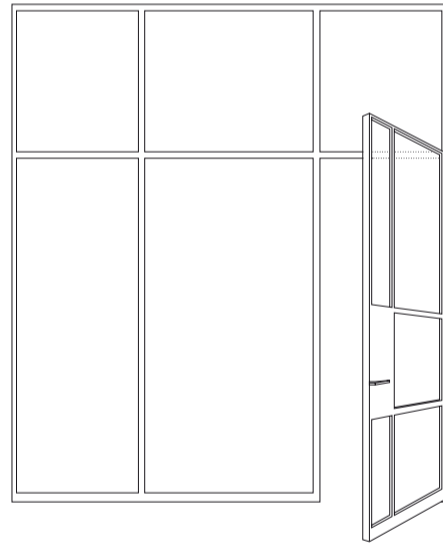
Single leaf inward opening side hung window



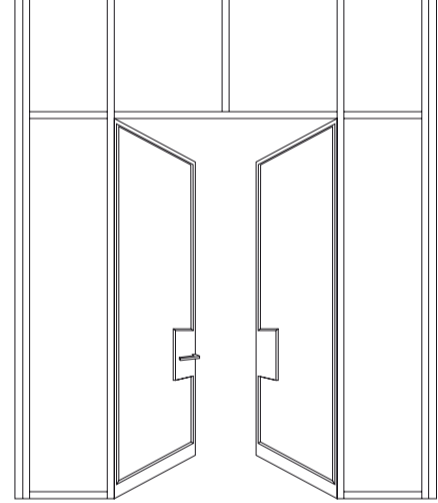
Double leaf inward opening side hung window



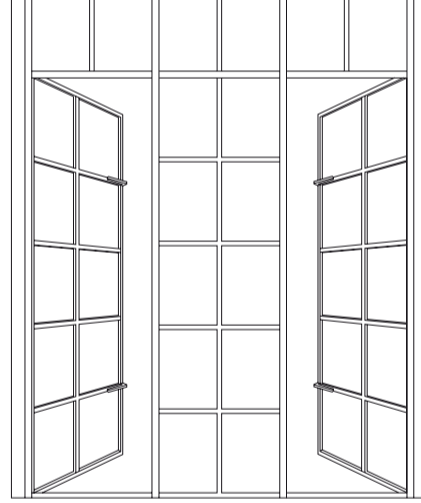
Inward opening bottom hung window



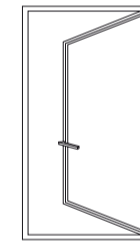
Fixed glazing with single leaf outward opening door



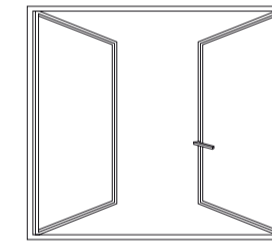
Curtain wall with double leaf outward opening door and top hung windows



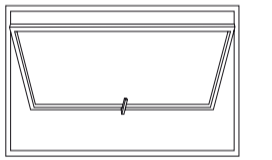
Industrial sidewall windows and historical curtain walls



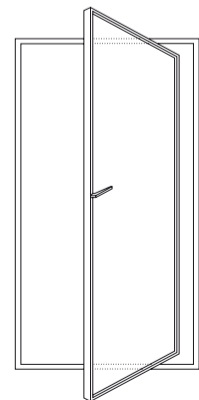
Single leaf outward opening side hung window



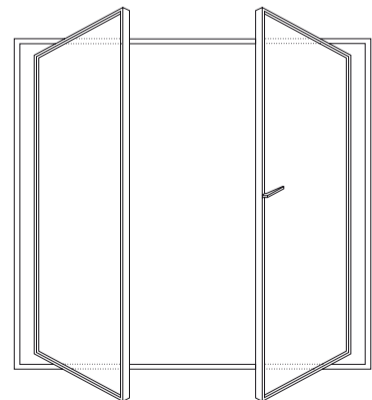
Double leaf outward opening side hung window



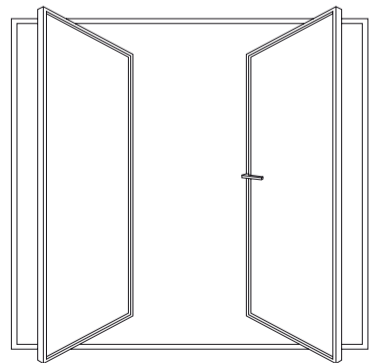
Outward opening top hung projecting window



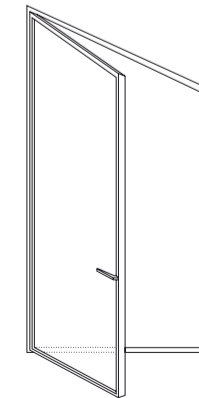
Single leaf inward / outward opening pivot door



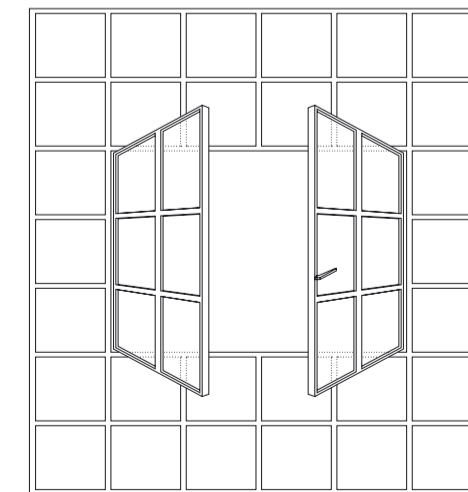
Double leaf inward / outward opening pivot door



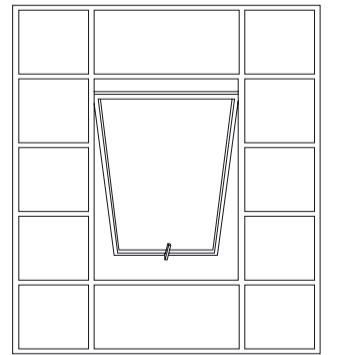
Double leaf inward / outward opening pivot door



For trapezoidal windows
Min angle of 80° on hinged side



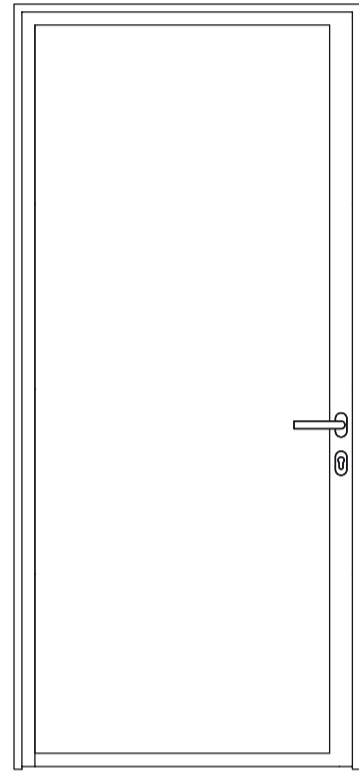
Double leaf inward opening side hung window in fixed glazing



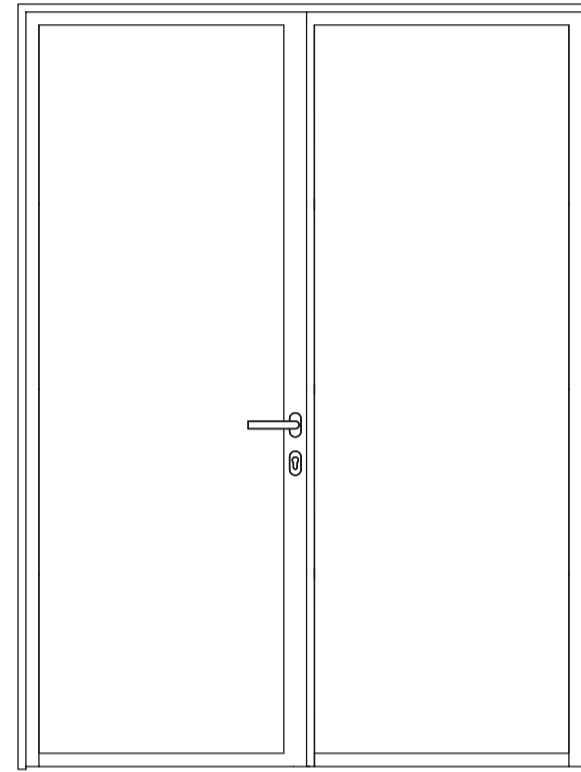
Outward opening top hung projecting window

Dimensions
Doors

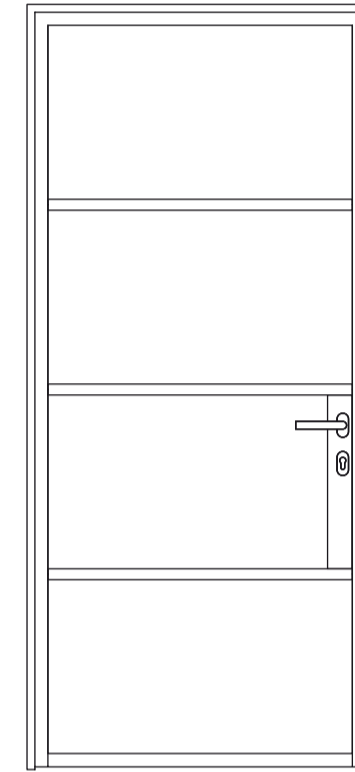
Perla
Slimline Steel G3
Type overview & dimensions



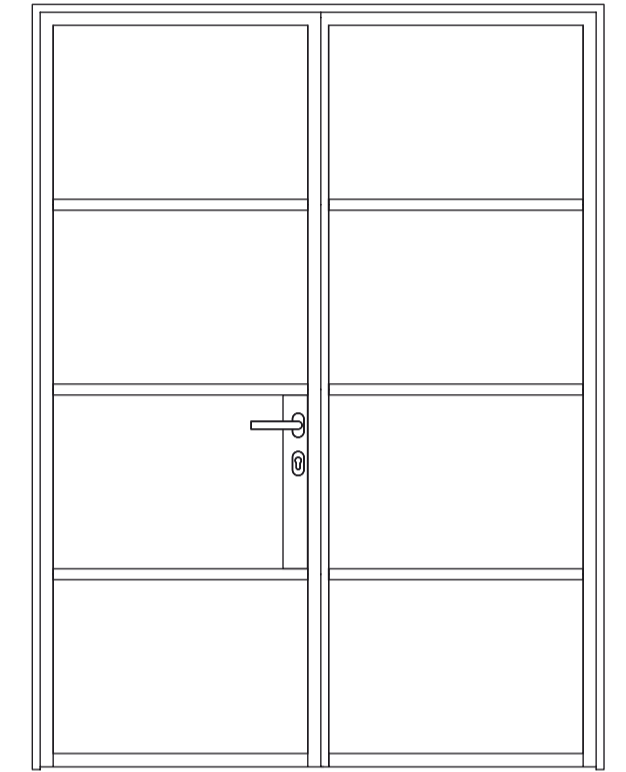
Single leaf door with widening on complete height on lock side
mn dimensions 700 mm (w) × 1800 mm (h)
mx dimensions 1200 mm (w) × 3000 mm (h)



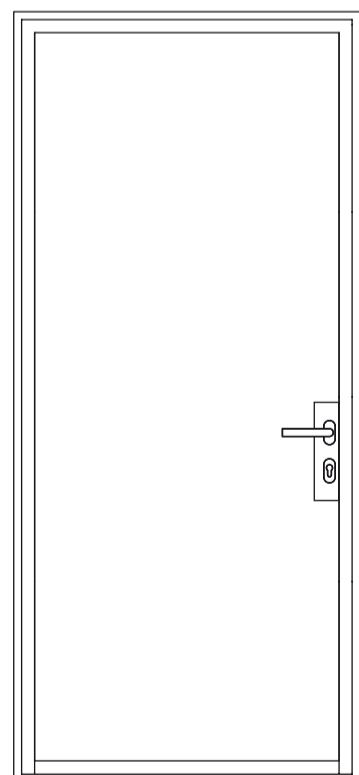
Double leaf door with widening on complete height on lock side
mn dimensions 1400 mm (w) × 1800 mm (h)
mx dimensions 2400 mm (w) × 3000 mm (h)



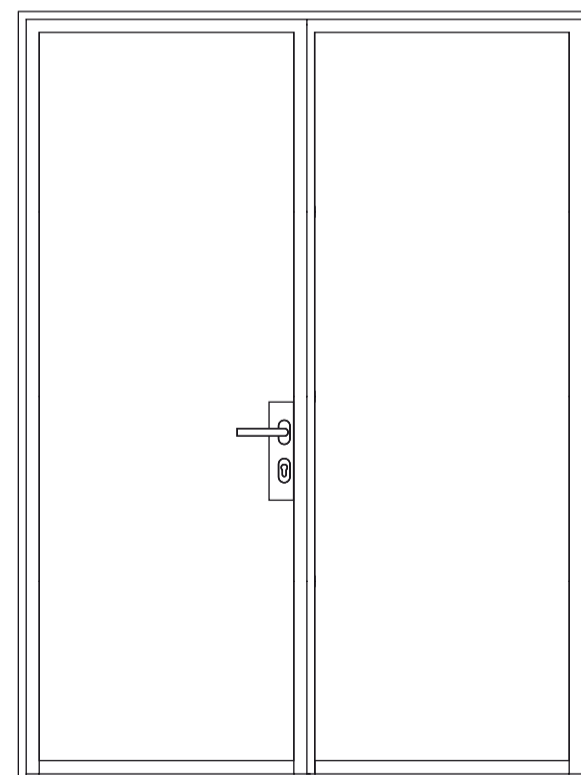
Single leaf door with TDL mullions and lock box
mn dimensions 700 mm (w) × 1800 mm (h)
mx dimensions 1200 mm (w) × 3000 mm (h)



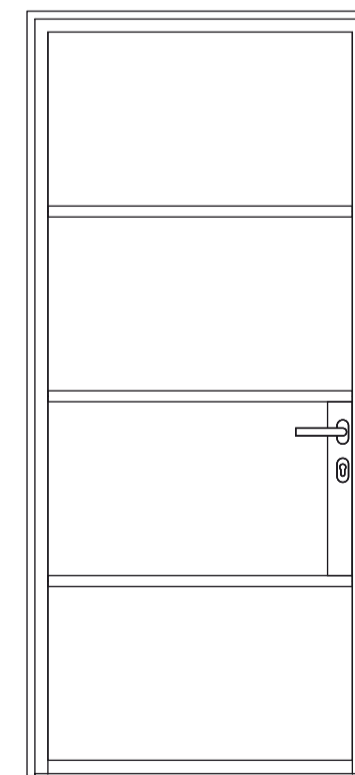
Double leaf door with TDL mullions and lock box
mn dimensions 1400 mm (w) × 1800 mm (h)
mx dimensions 2400 mm (w) × 3000 mm (h)



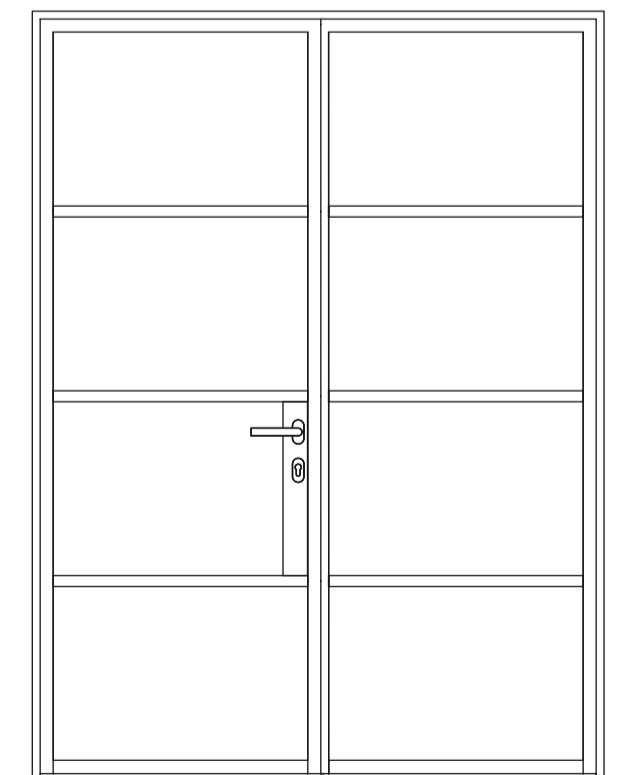
Single leaf inward opening door with floating lock box
mn dimensions 700 mm (w) × 1800 mm (h)
mx dimensions 1200 mm (w) × 3000 mm (h)



Double leaf inward opening door with floating lock box
mn dimensions 1400 mm (w) × 1800 mm (h)
mx dimensions 2400 mm (w) × 3000 mm (h)



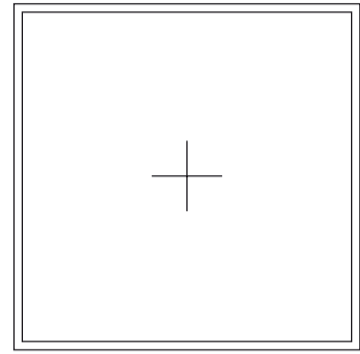
Single leaf door with TDL mullions and lock box
mn dimensions 700 mm (w) × 1800 mm (h)
mx dimensions 1200 mm (w) × 3000 mm (h)



Double leaf door with SDL mullions and lock box
mn dimensions 1400 mm (w) × 1800 mm (h)
mx dimensions 2400 mm (w) × 3000 mm (h)

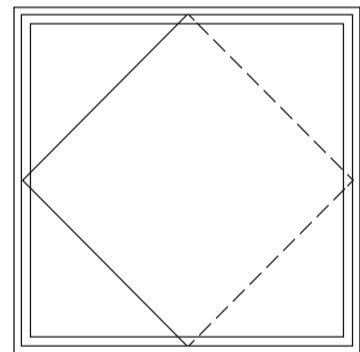
Dimensions Windows

Fixed Window

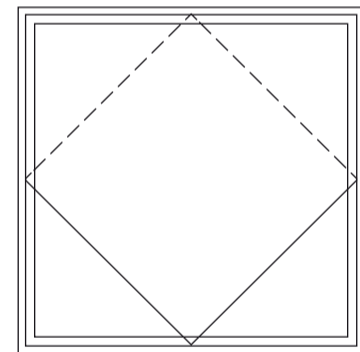


mn dimensions 400 mm (w) × 400 mm (h)
mx dimensions 2400 mm (w) × 2600 mm (h)

Pivot window

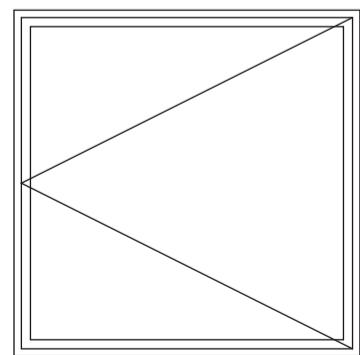


Vertical pivot
mn dimensions 600 mm (w) × 600 mm (h)
mx dimensions 2000 mm (w) × 3000 mm (h)

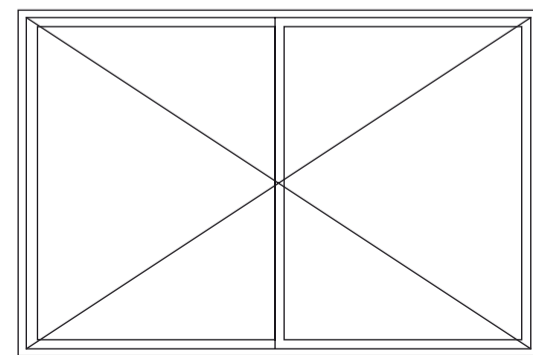


Horizontal pivot
mn dimensions 600 mm (w) × 600 mm (h)
mx dimensions 2000 mm (w) × 3000 mm (h)

Side hung window Overlapped profiles — hardware with concealed hinges



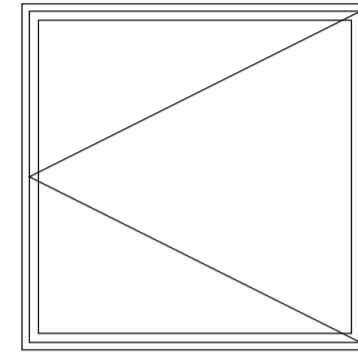
Single leaf inward opening
mn dimensions 370 mm (w) × 455 mm (h)
mx dimensions 1400 mm (w) × 2800 mm (h)



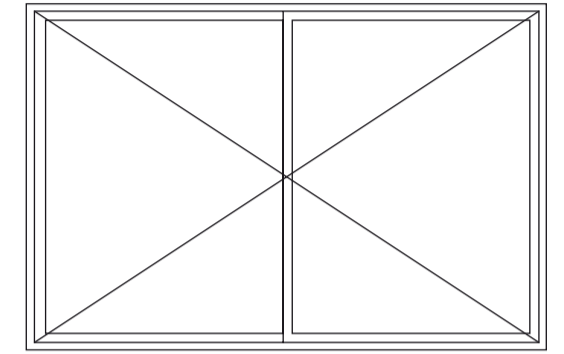
Double leaf inward opening
mn dimensions 270 mm (w) × 455 mm (h)
mx dimensions 1400 mm (w) × 2800 mm (h)

Perla Slimline Steel G3 Type overview & dimensions

Side hung window Flush and overlapped profiles — with weld-on or screw-on hinges

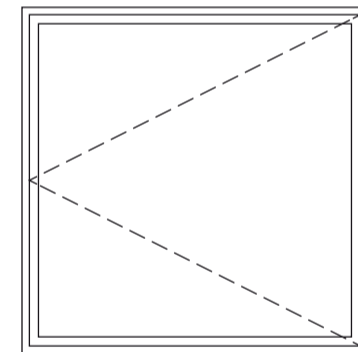


Single leaf inward opening
mn dimensions 400 mm (w) × 700 mm (h)
mx dimensions 1200 mm (w) × 3000 mm (h)

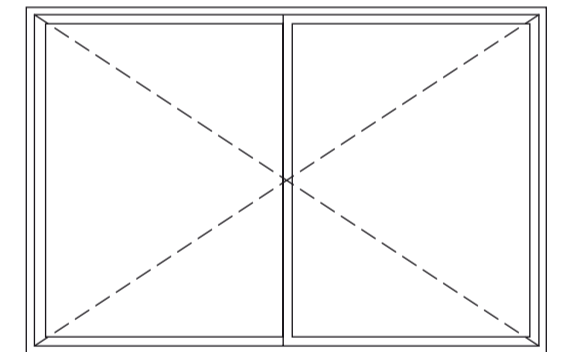


Double leaf inward opening
mn dimensions 800 mm (w) × 700 mm (h)
mx dimensions 2400 mm (w) × 3000 mm (h)

Side hung window Flush and overlapped profiles — with weld-on or screw-on hinges

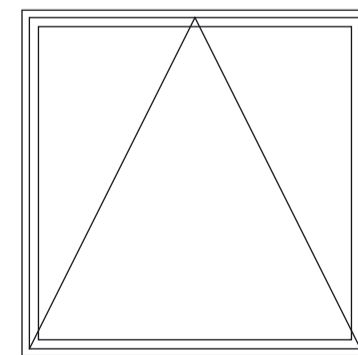


Single leaf outward opening
mn dimensions 400 mm (w) × 700 mm (h)
mx dimensions 1200 mm (w) × 3000 mm (h)

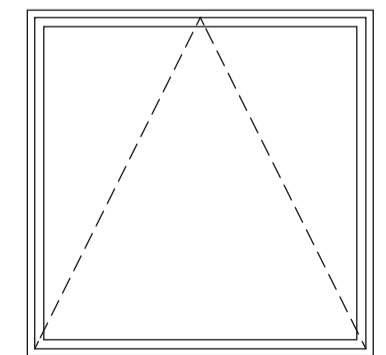


Double leaf outward opening
mn dimensions 800 mm (w) × 700 mm (h)
mx dimensions 2400 mm (w) × 3000 mm (h)

Bottom hung window Flush and overlapped profiles — with weld-on or screw-on hinges



Bottom hung inward opening
mn dimensions 500 mm (w) × 450 mm (h)
mx dimensions 1800 mm (w) × 1800 mm (h)

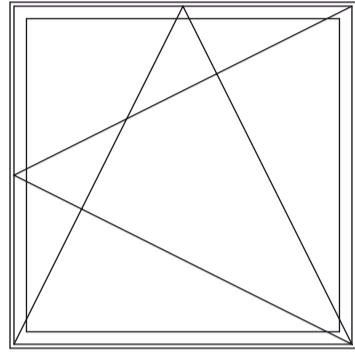


Bottom hung outward opening
mn dimensions 600 mm (w) × 450 mm (h)
mx dimensions 1800 mm (w) × 1800 mm (h)

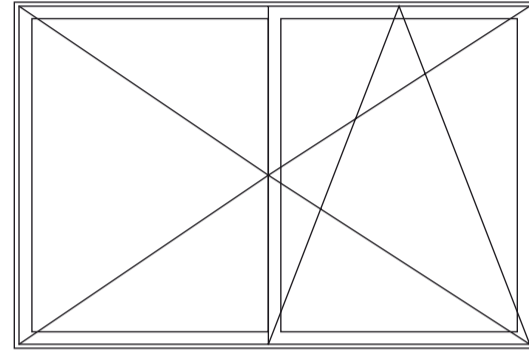
Dimensions Windows

Perla
Slimline Steel G3
Type overview & dimensions

Tilt & turn window
Hardware with concealed hinges

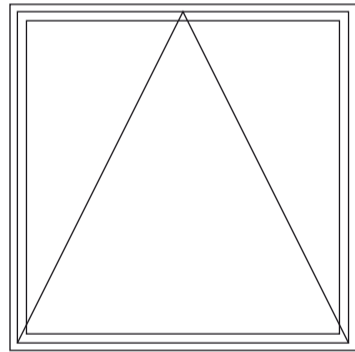


Single leaf tilt & turn
mn dimensions 370 mm (w) × 455 mm (h)
mx dimensions 1400 mm (w) × 2800 mm (h)



Double leaf tilt & turn
mn dimensions 270 mm (w) × 455 mm (h)
mx dimensions 1400 mm (w) × 2800 mm (h)

Bottom hung window
Hardware with concealed hinges



Inward opening
mn dimensions 400 mm (w) × 400 mm (h)
mx dimensions 1200 mm (w) × 2400 mm (h)

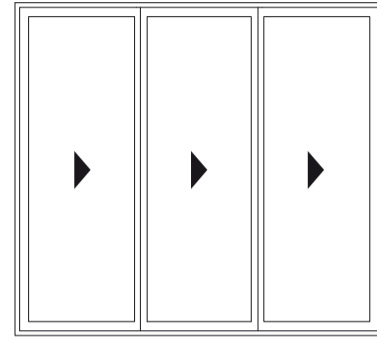


Project: Spencer Road
Architect: Nancy Elgar
Photographer: David Butler Photography

Opening Possibilities
Bifold doors

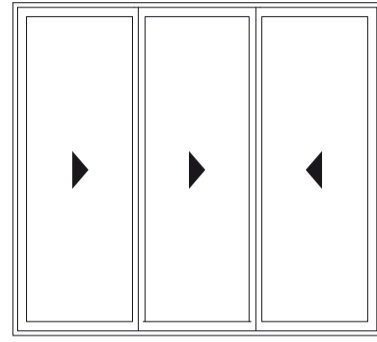
Perla
Slimline Steel G3
Opening possibilities

3 + 0



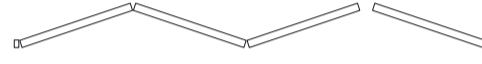
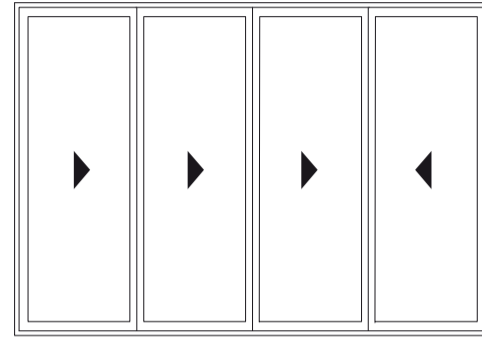
Max leaf dimensions
1000 mm (w) x 3300 mm (h)

2 + 1



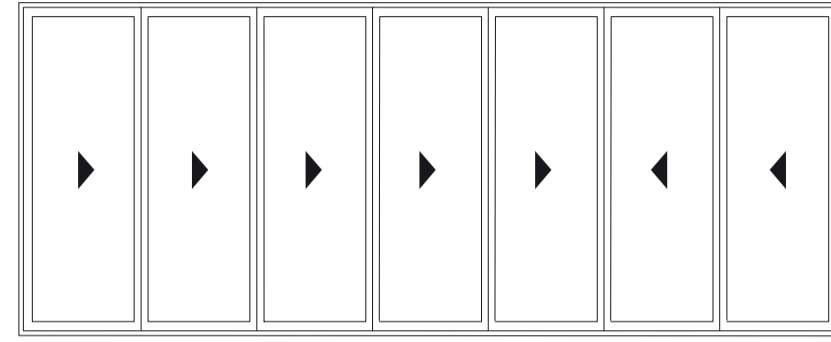
Max leaf dimensions
1000 mm (w) x 3300 mm (h)

3 + 1



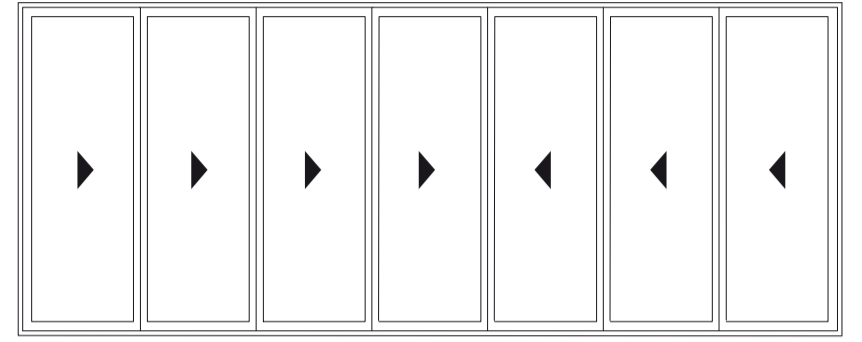
Max leaf dimensions
1000 mm (w) x 3300 mm (h)

5 + 2



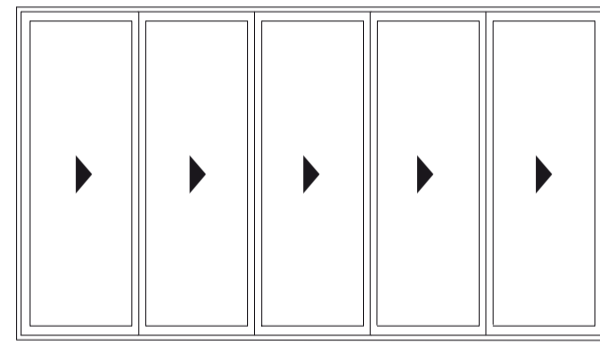
Max leaf dimensions
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4 + 3



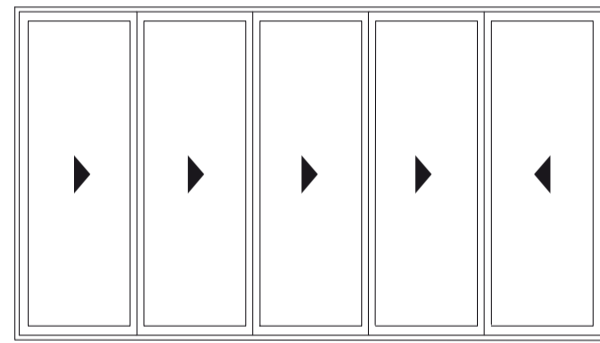
Max leaf dimensions
1000 mm (w) x 3300 mm (h)

5 + 0



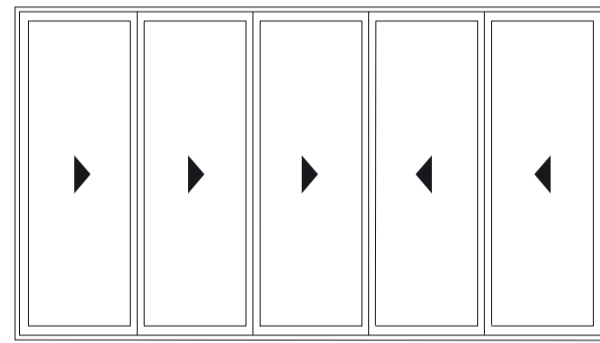
Max leaf dimensions
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4 + 1



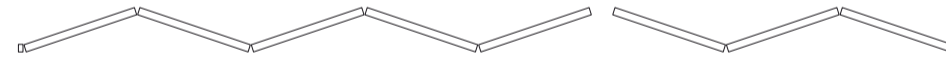
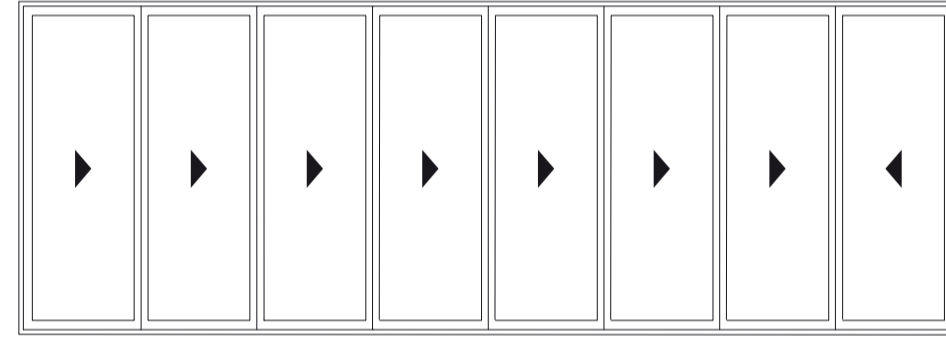
Max leaf dimensions
1000 mm (w) x 3300 mm (h)

3 + 2



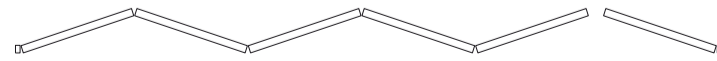
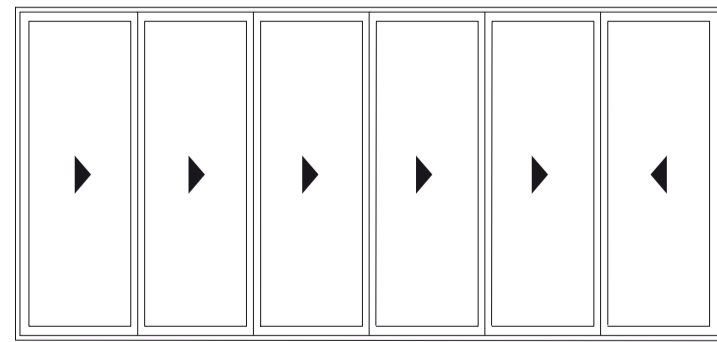
Max leaf dimensions
1000 mm (w) x 3300 mm (h)

5 + 3



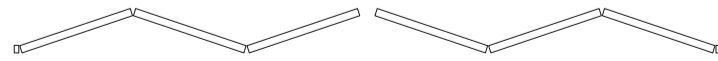
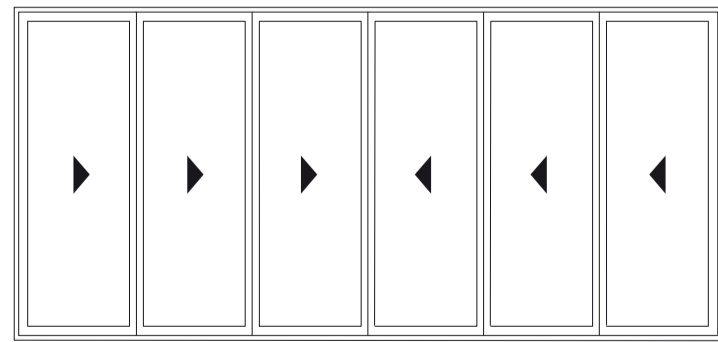
Max leaf dimensions
1000 mm (w) x 3300 mm (h)

5 + 1



Max leaf dimensions
1000 mm (w) x 3300 mm (h)

3 + 3

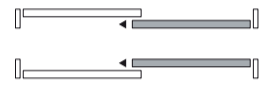
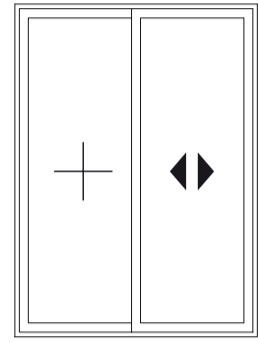


Max leaf dimensions
1000 mm (w) x 3300 mm (h)

Opening Possibilities Sliding Doors

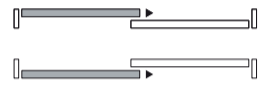
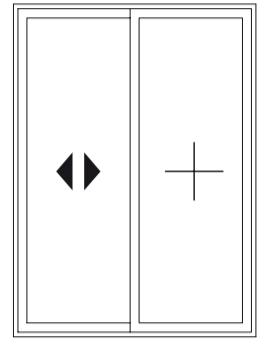
Two Rail Frame

1 Sash door

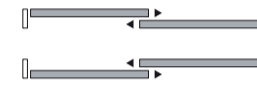
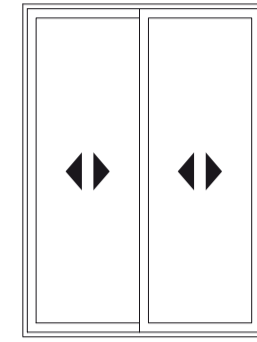


Max sash dimensions
1000 mm (w) × 3300 mm (h)

2 Sashes door

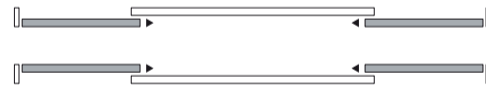
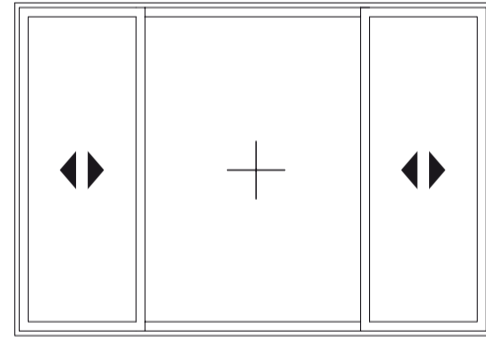


Max sash dimensions
1000 mm (w) × 3300 mm (h)



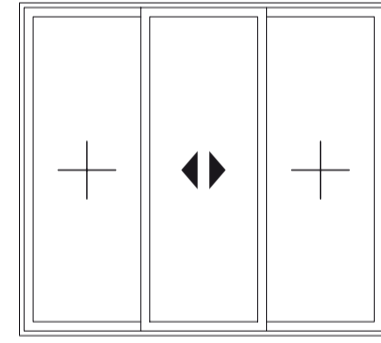
Max sash dimensions
1000 mm (w) × 3300 mm (h)

2 Sashes door with central fixed light



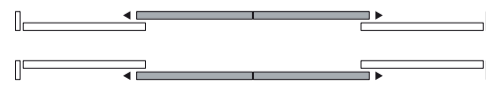
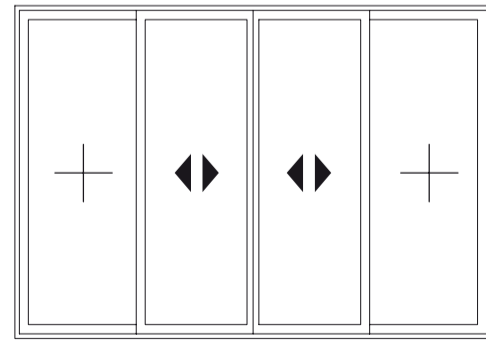
Max sash dimensions
1000 mm (w) × 3300 mm (h)

1 Sash door with 2 lateral fixed lights



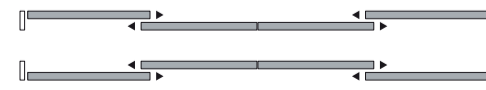
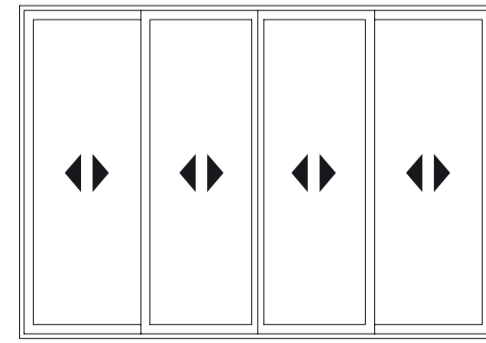
Max sash dimensions
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2 Sashes door with 2 lateral fixed lights

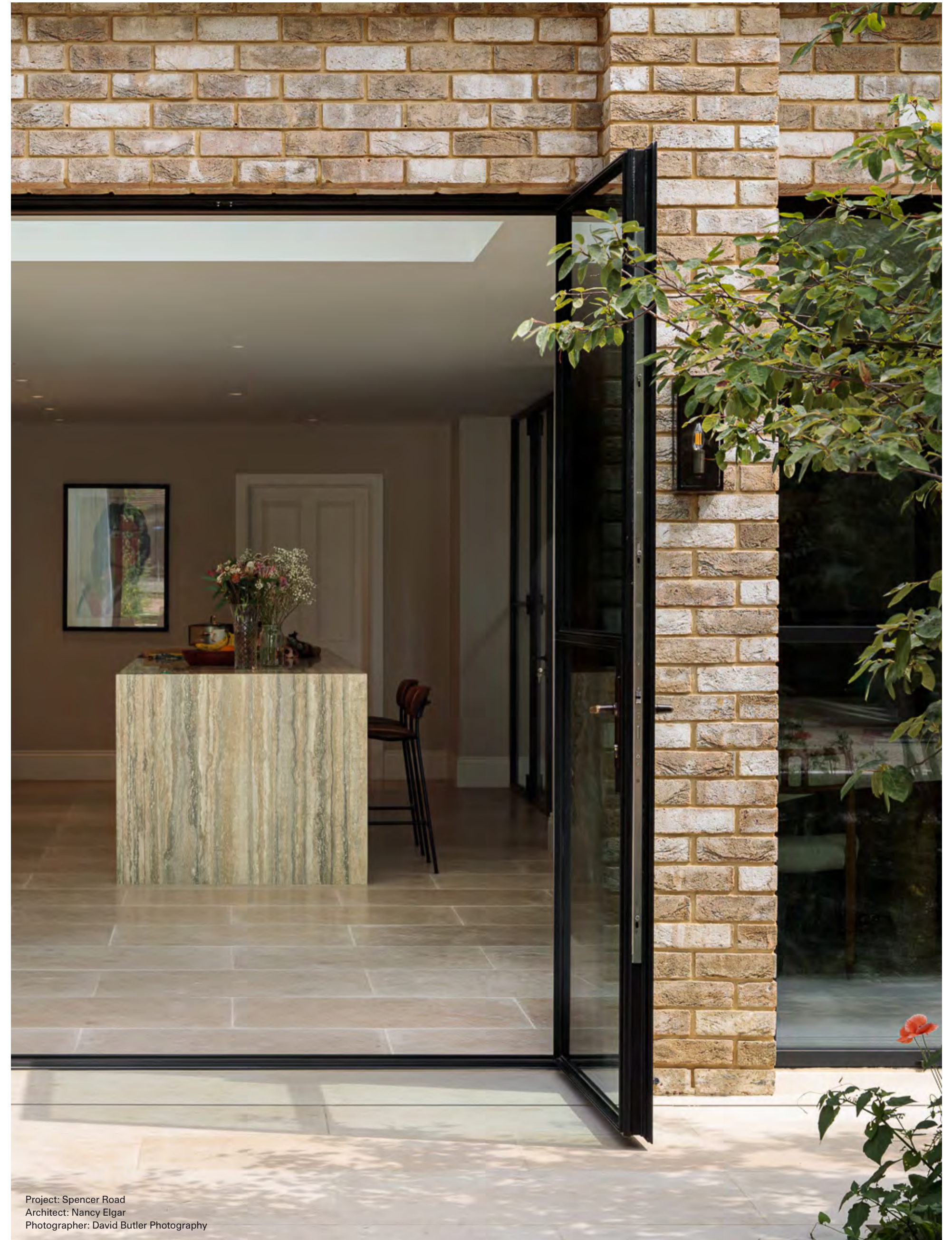


Max sash dimensions
1000 mm (w) × 3300 mm (h)

4 Sashes door



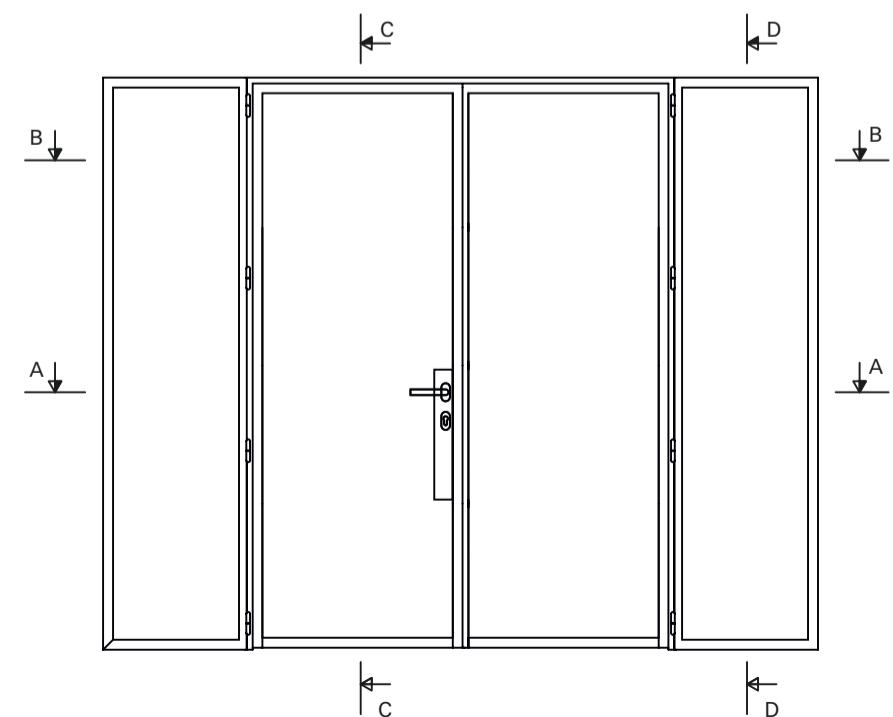
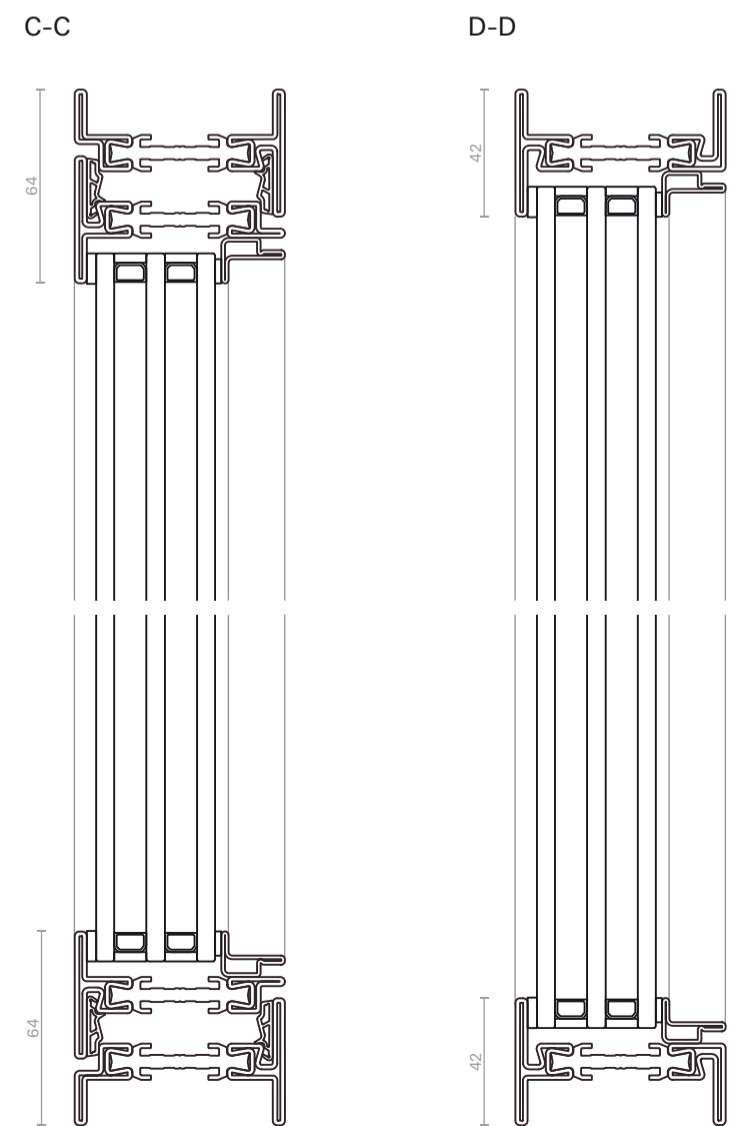
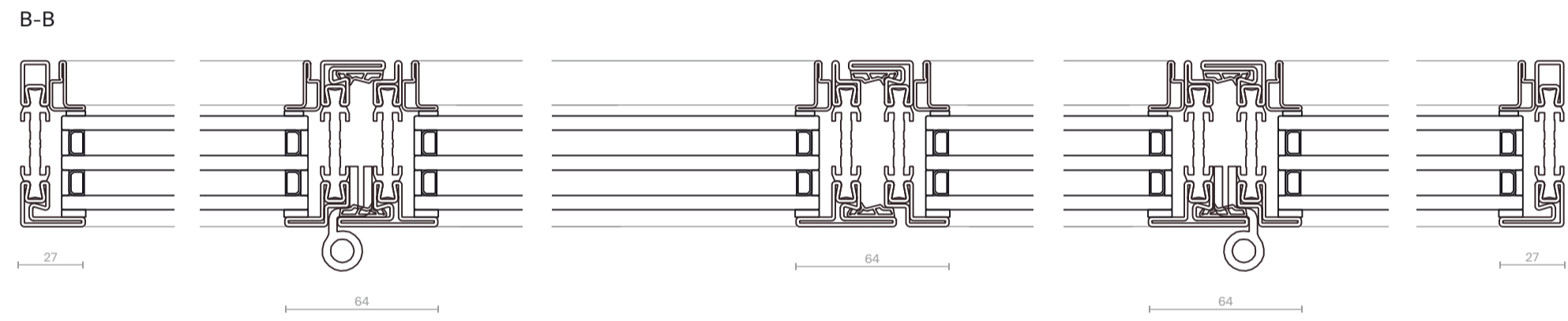
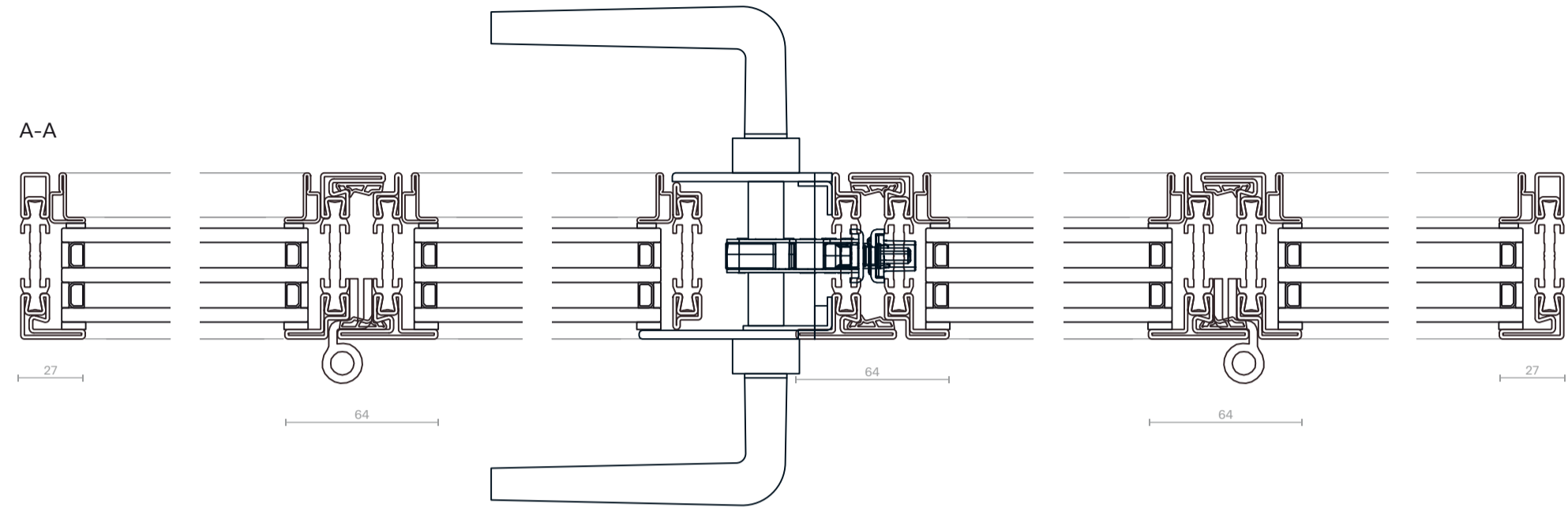
Max sash dimensions
1000 mm (w) × 3300 mm (h)



Project: Spencer Road
Architect: Nancy Elgar
Photographer: David Butler Photography

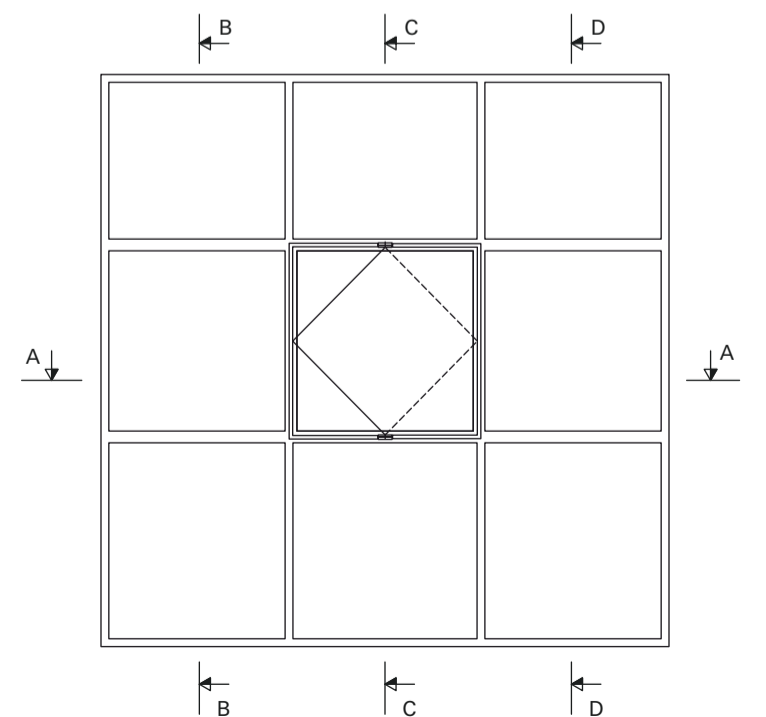
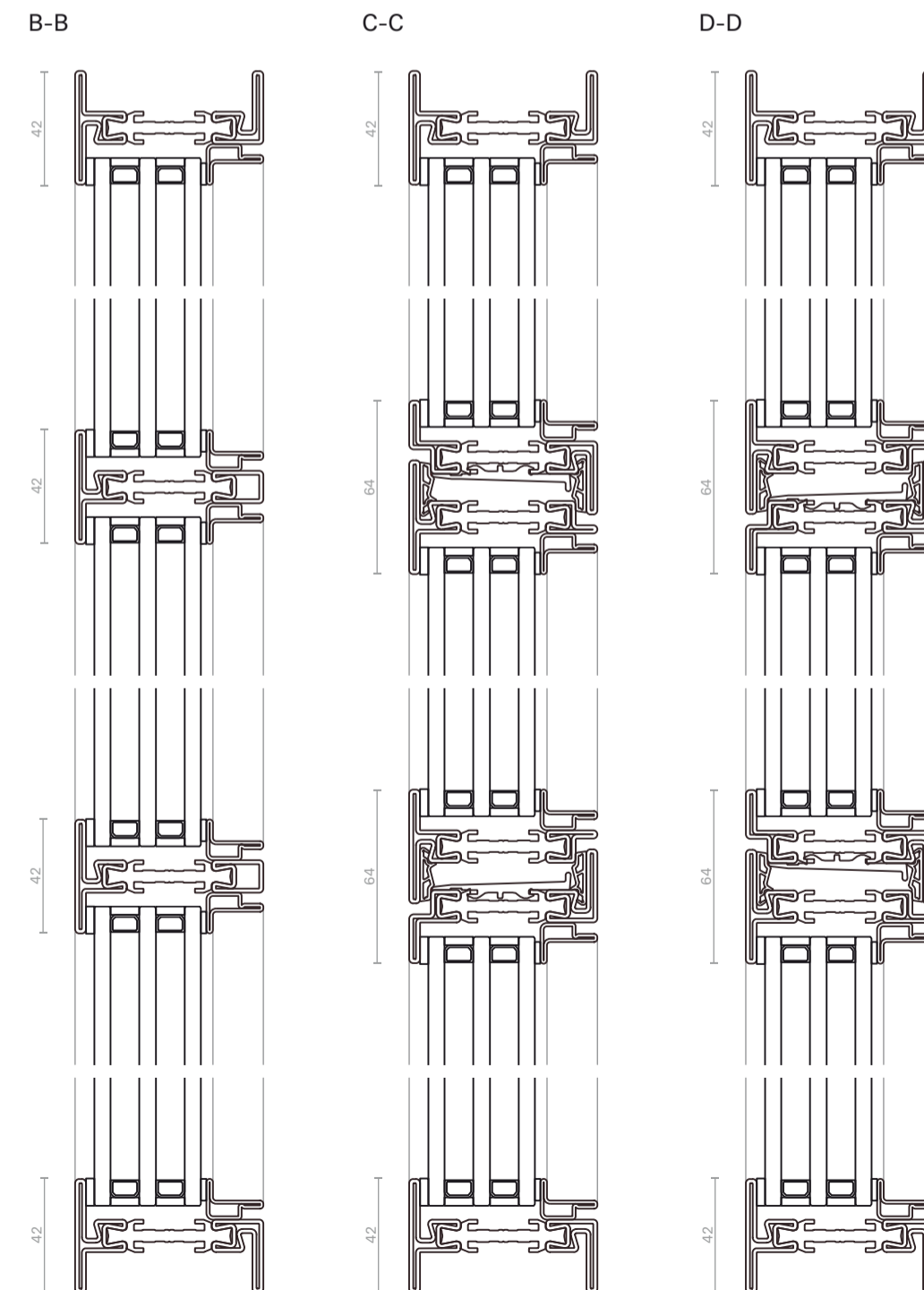
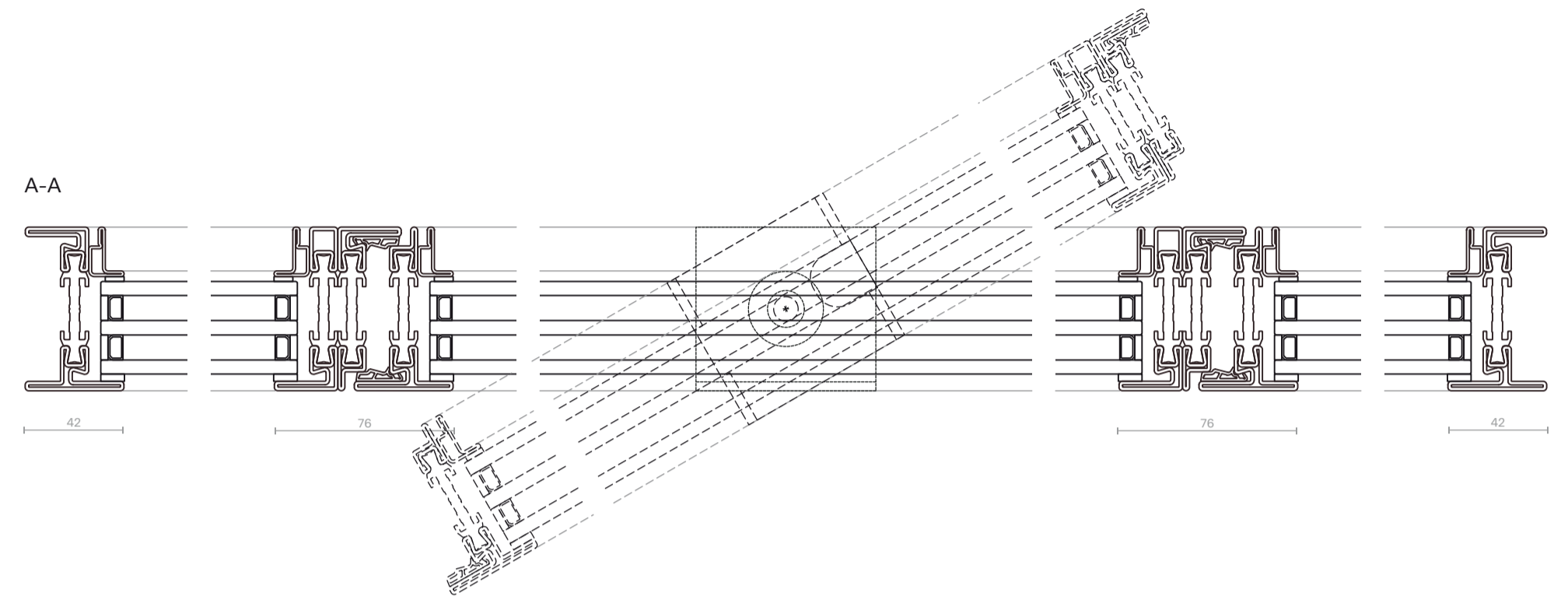
Outward-opening door
Full vent

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Slimline Steel G3
Example Drawings



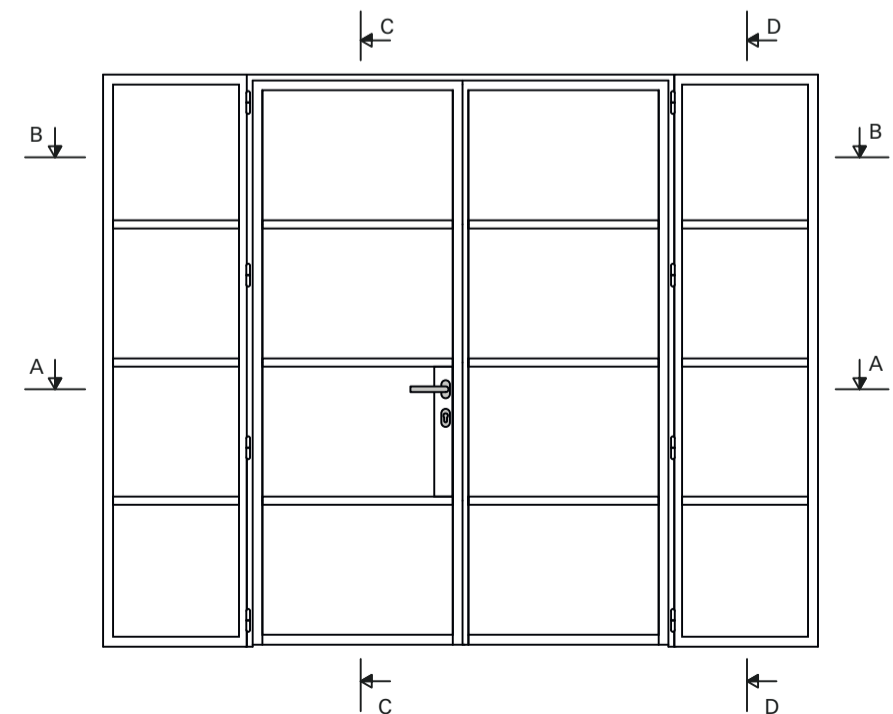
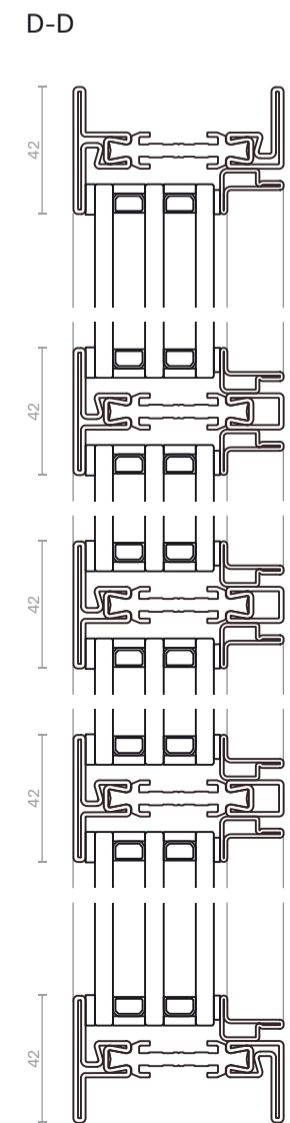
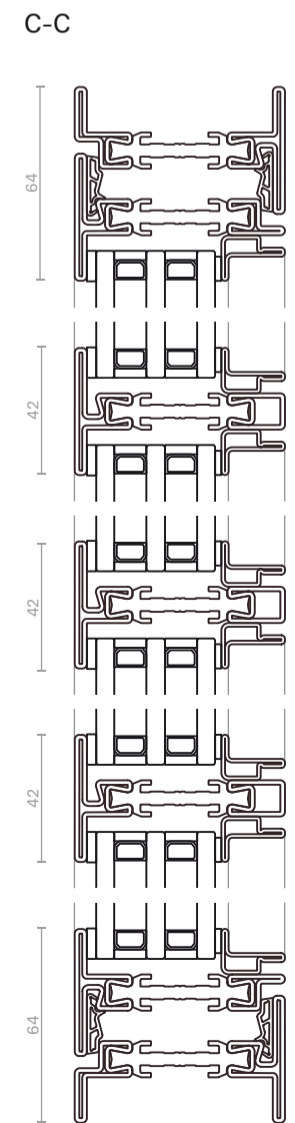
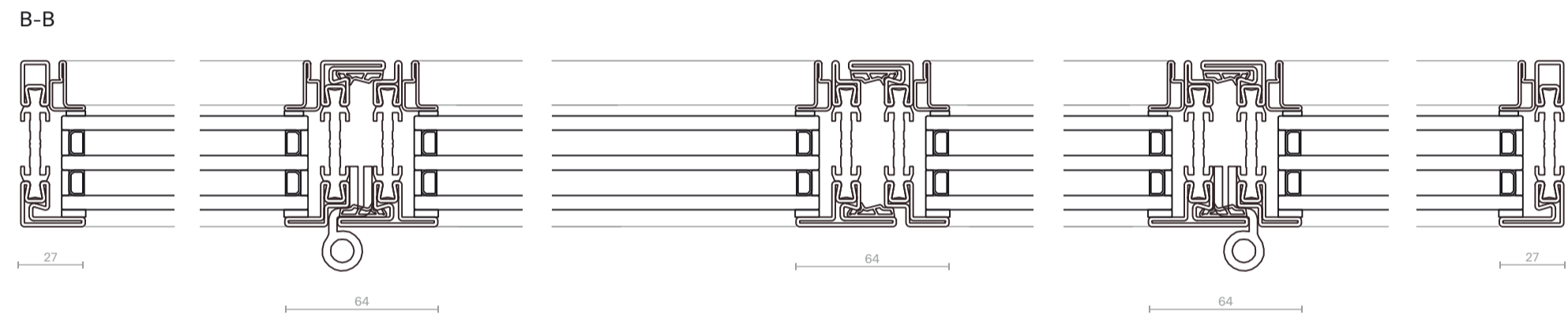
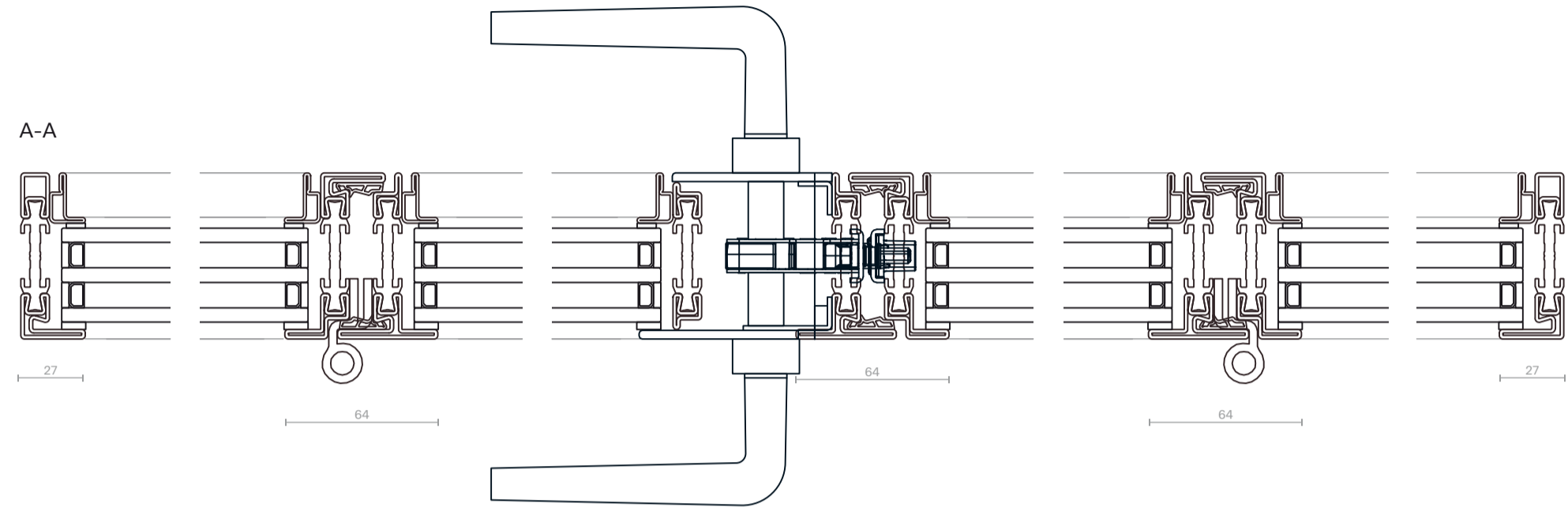
Pivot window / door
Vertical pivot

Perla
Slimline Steel G3
Example Drawings



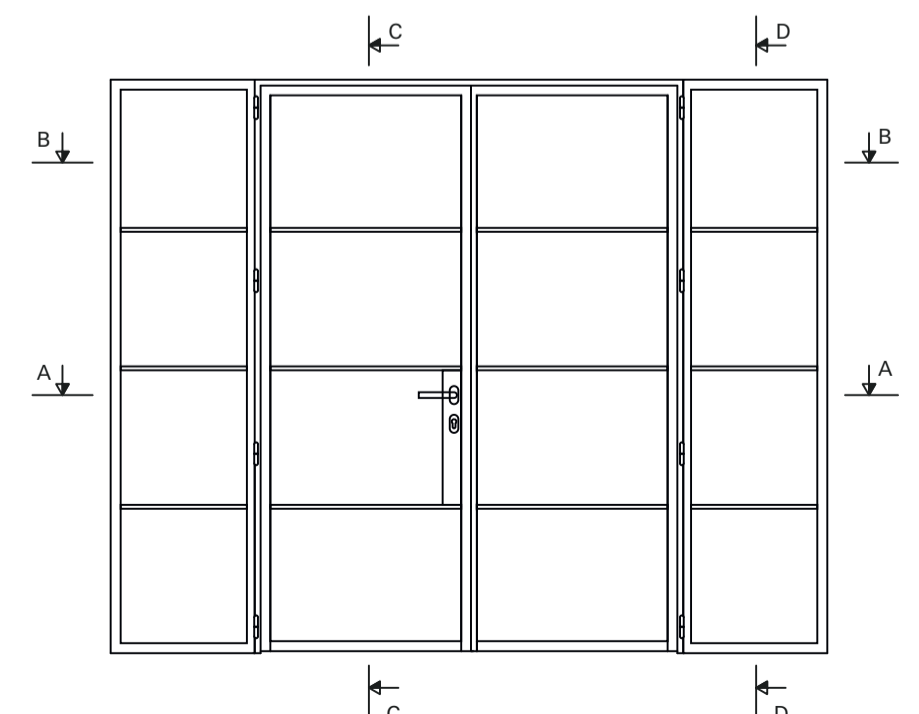
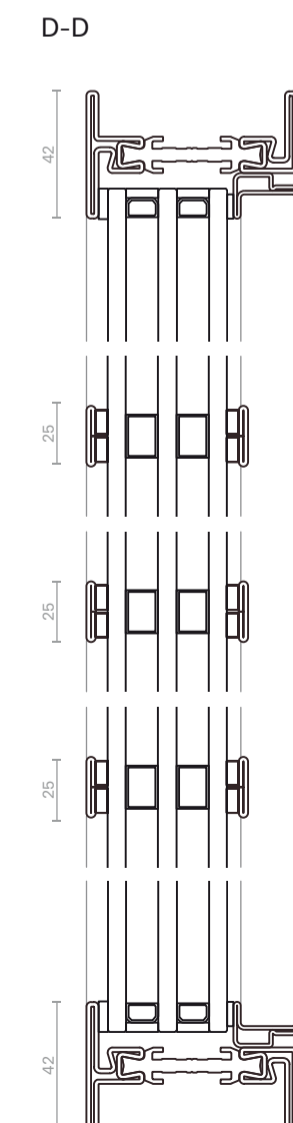
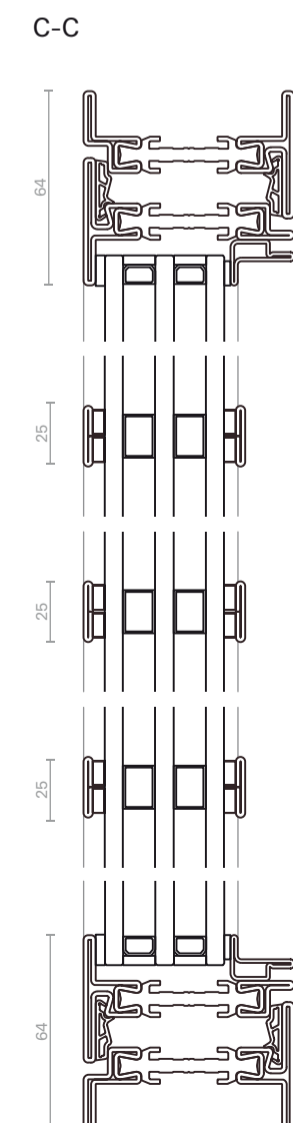
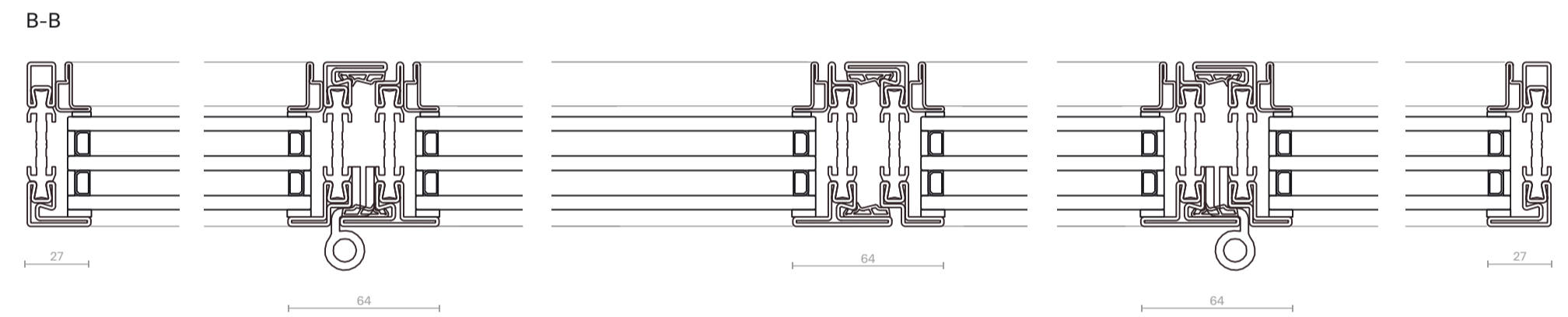
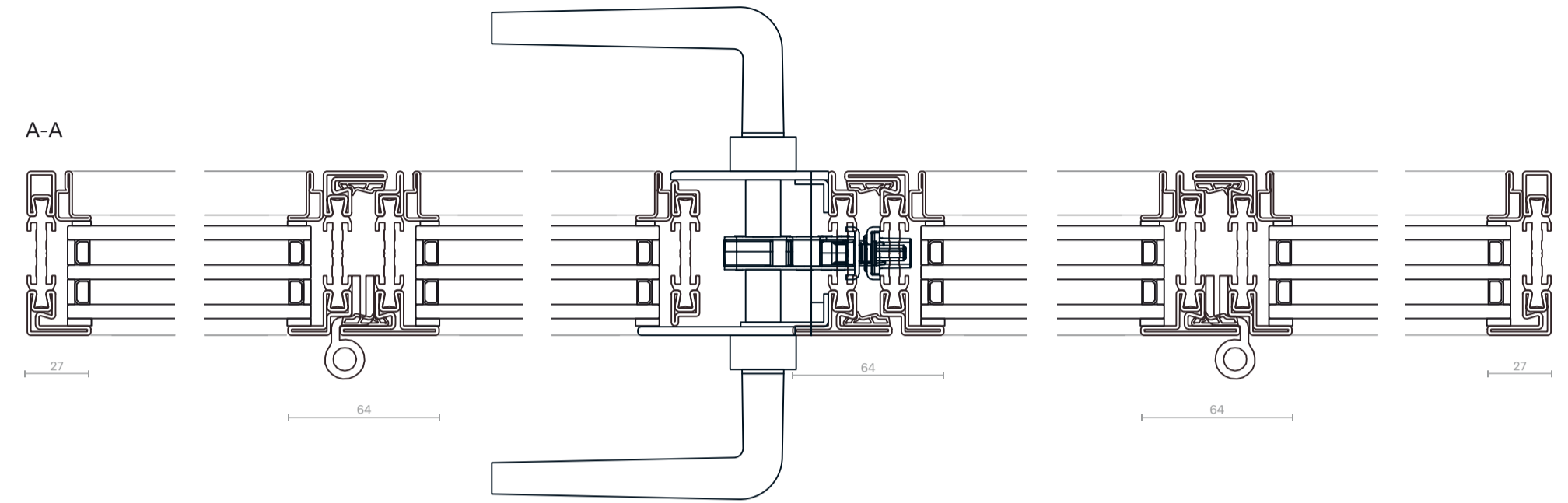
Outward-opening door
TDL mullion

Perla
Slimline Steel G3
Example Drawings



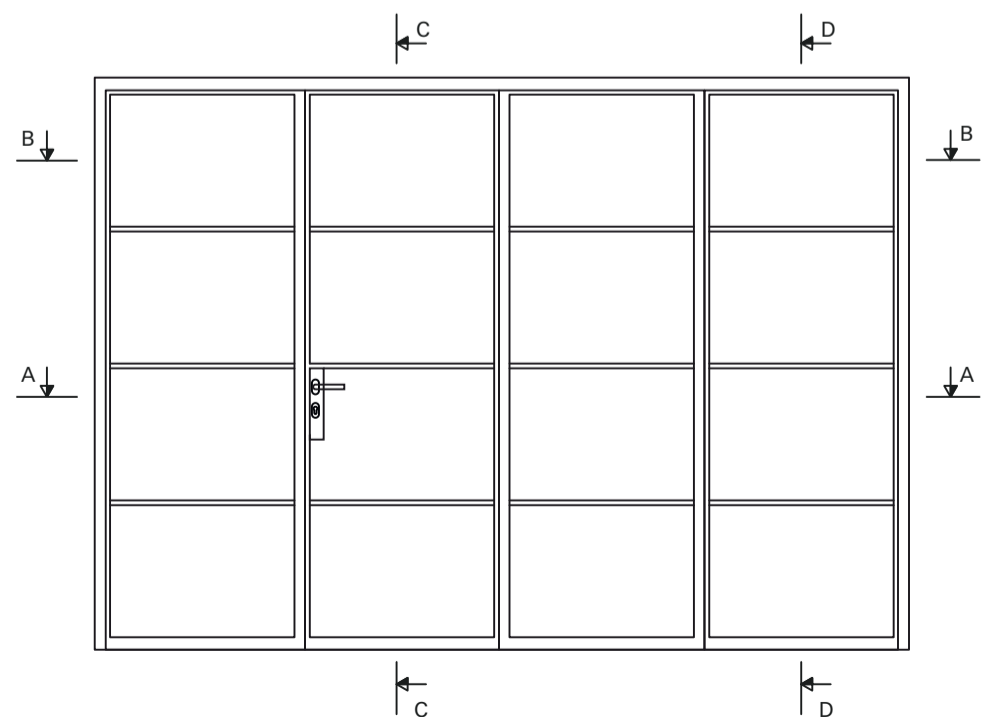
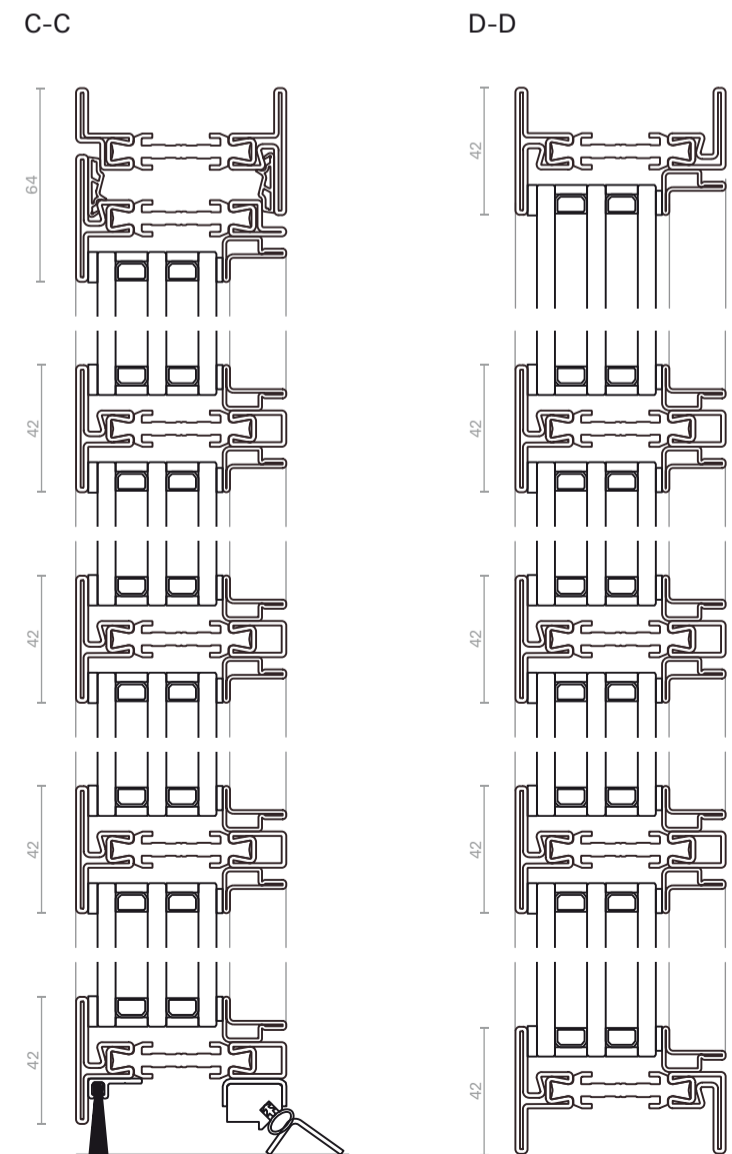
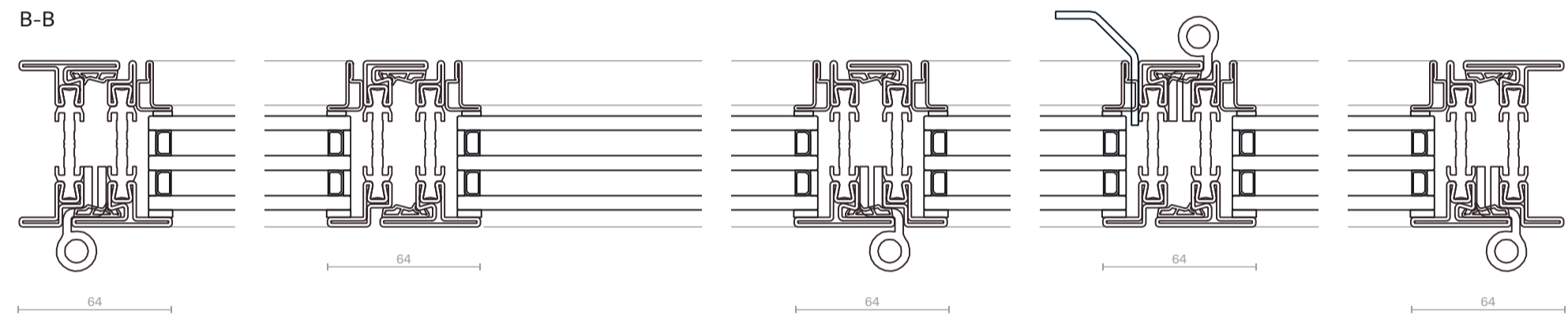
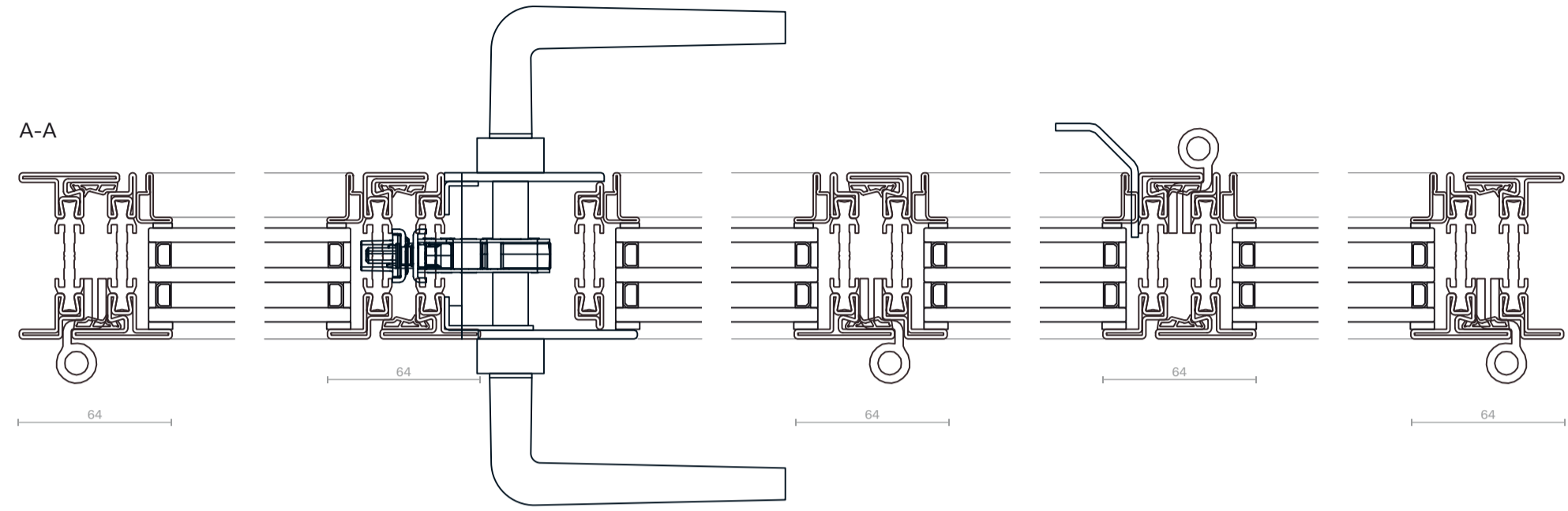
Outward-opening door
SDL mullion

Perla
Slimline Steel G3
Example Drawings



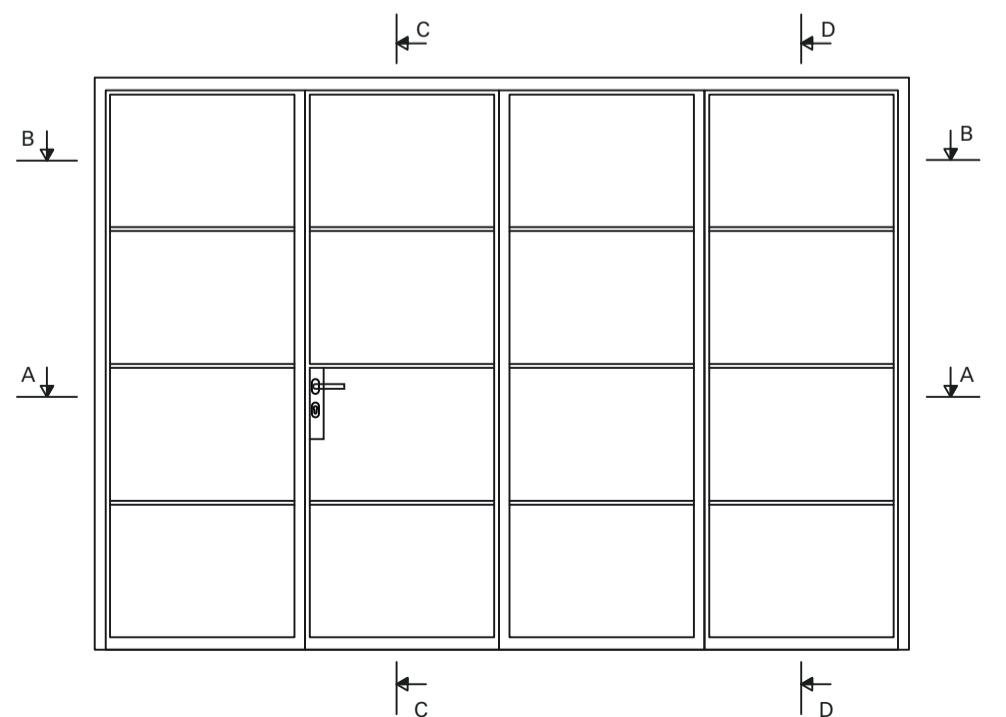
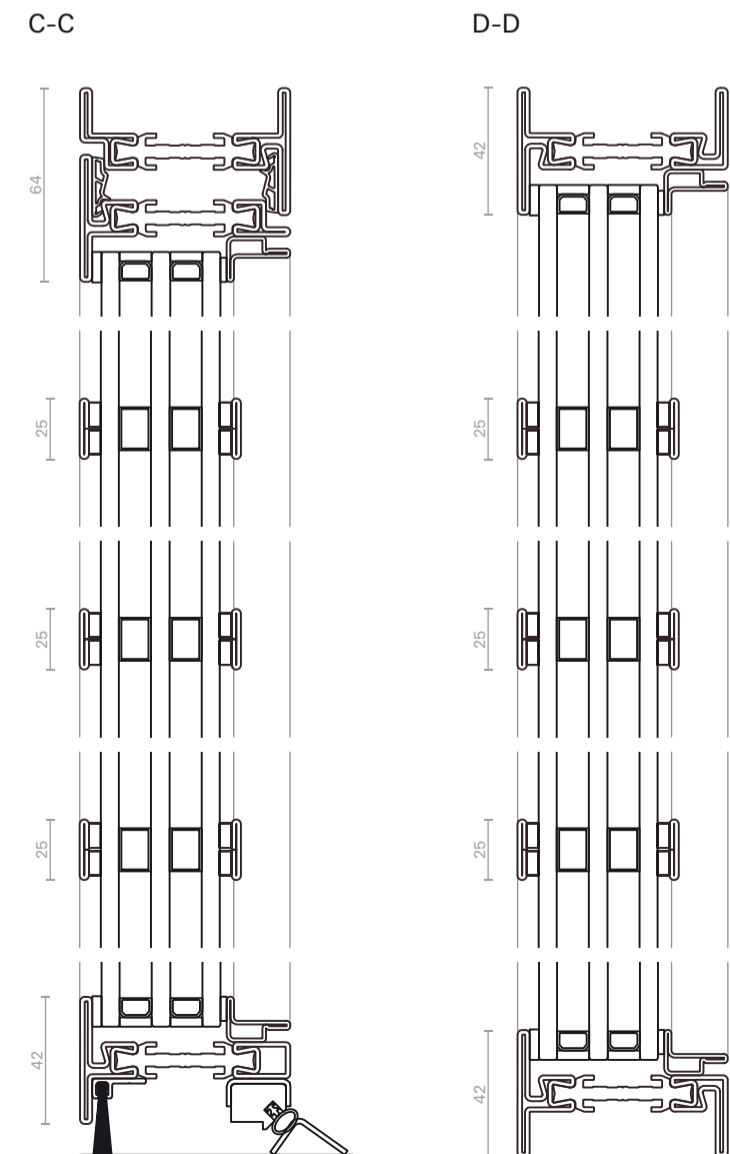
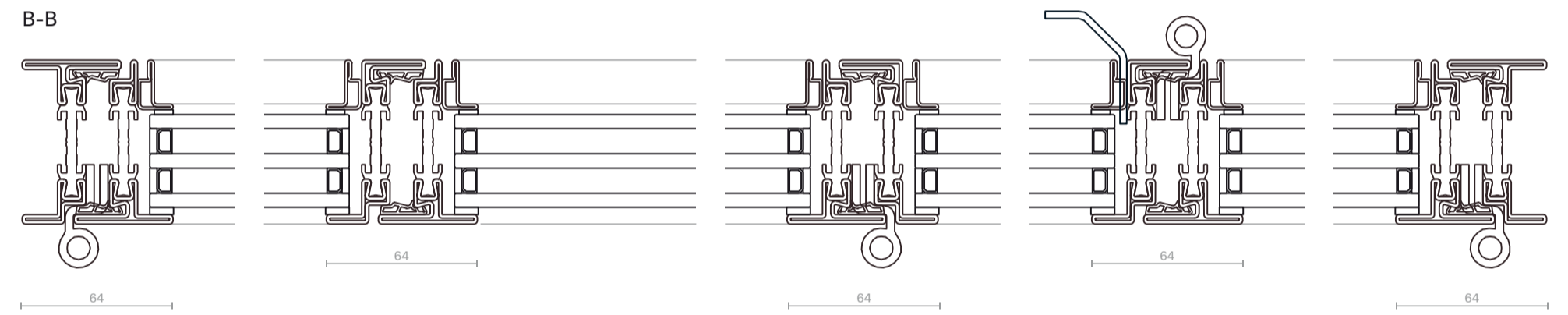
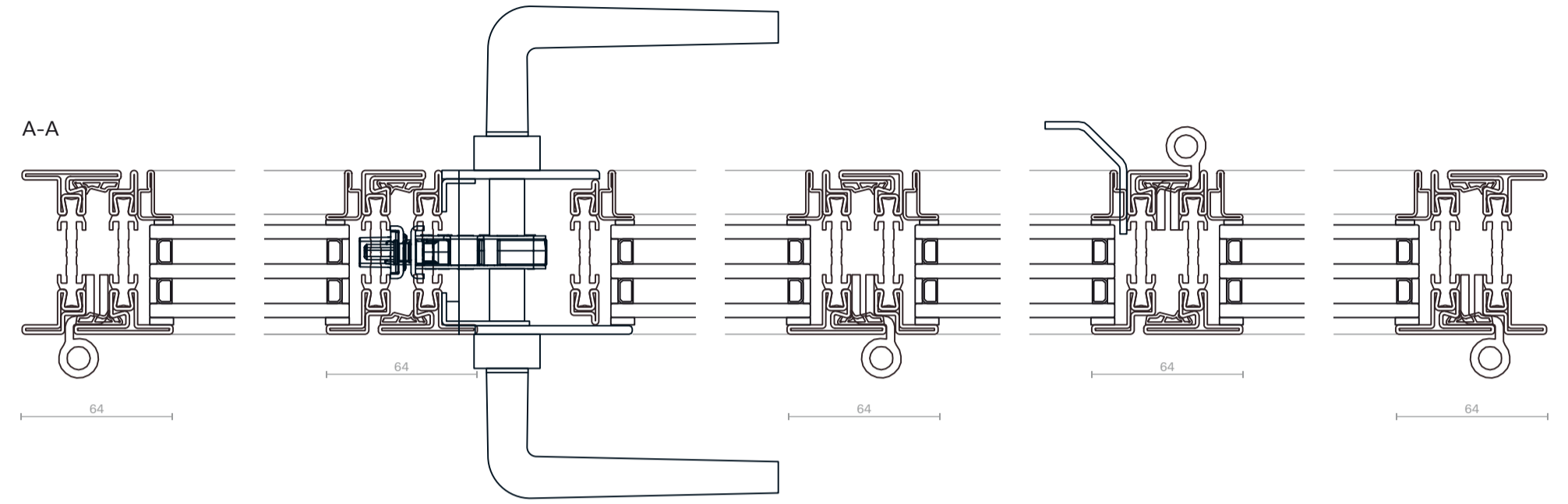
Bifold doors
TDL mullion

Perla
Slimline Steel G3
Example Drawings



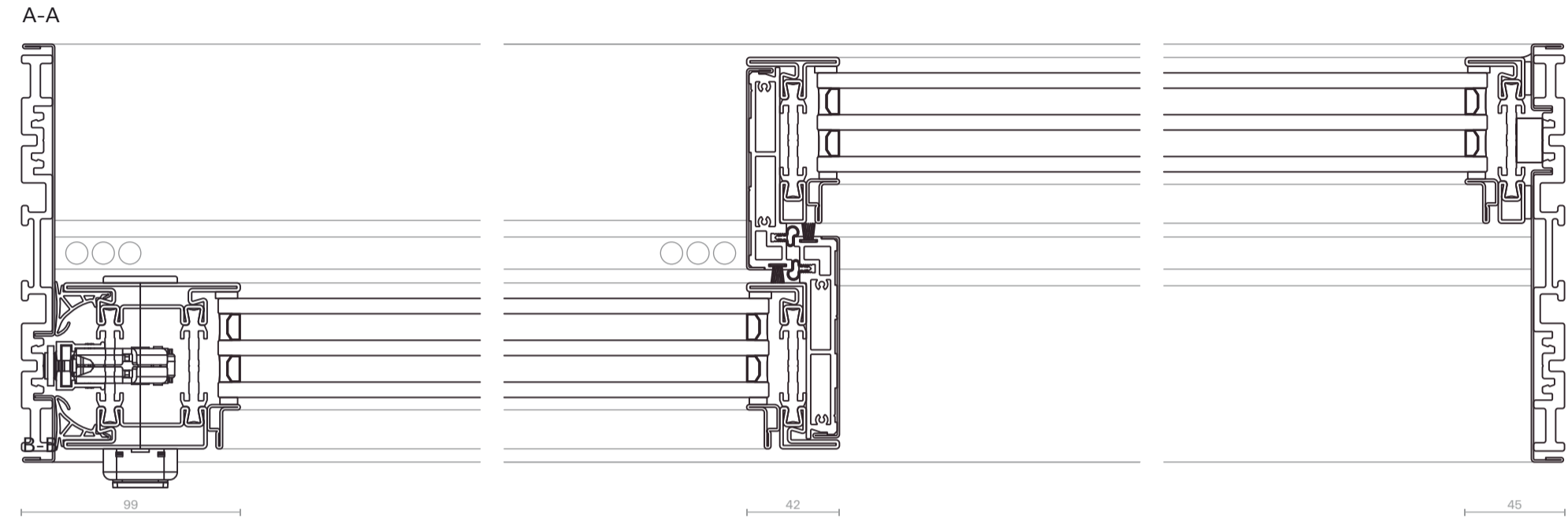
Bifold doors
SDL mullion

Perla
Slimline Steel G3
Example Drawings



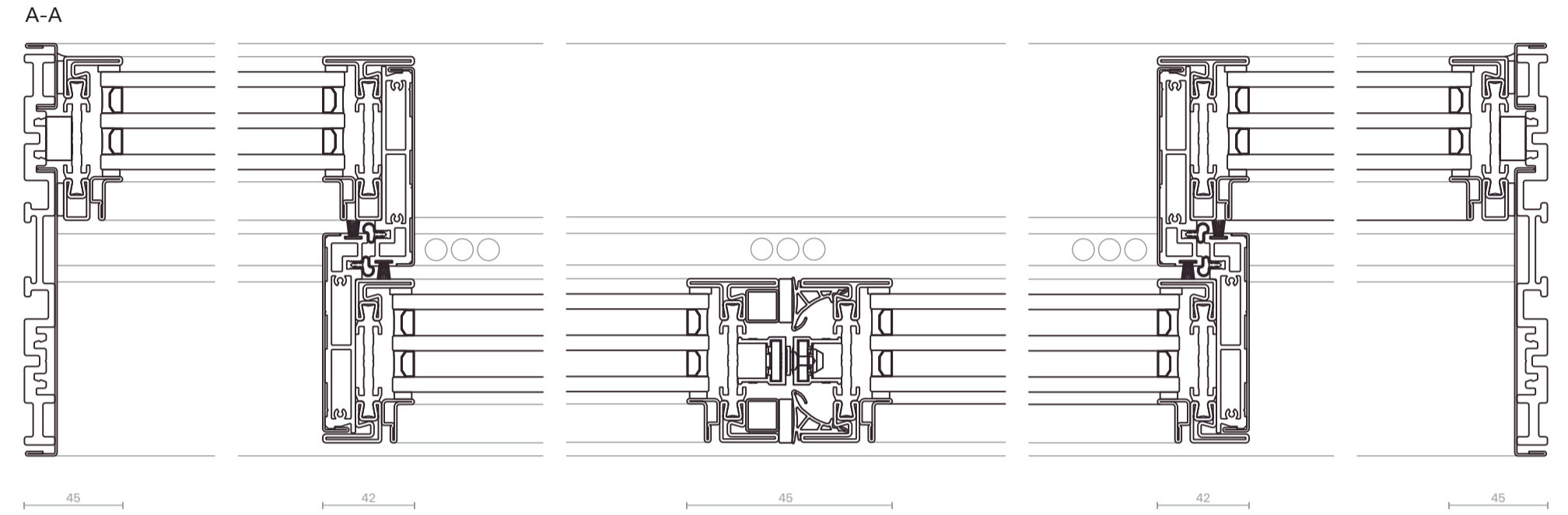
Sliding Doors
Full vent

Perla
Slimline Steel G3
Example Drawings

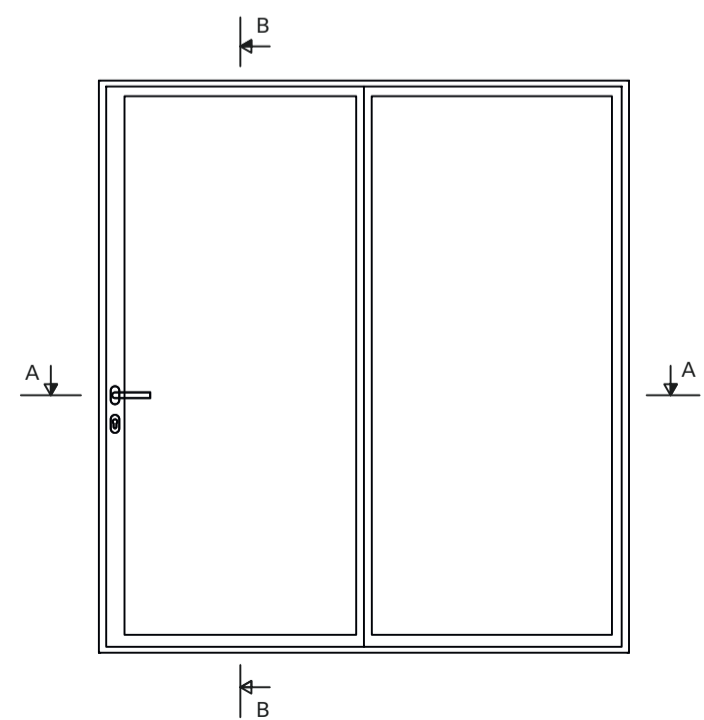
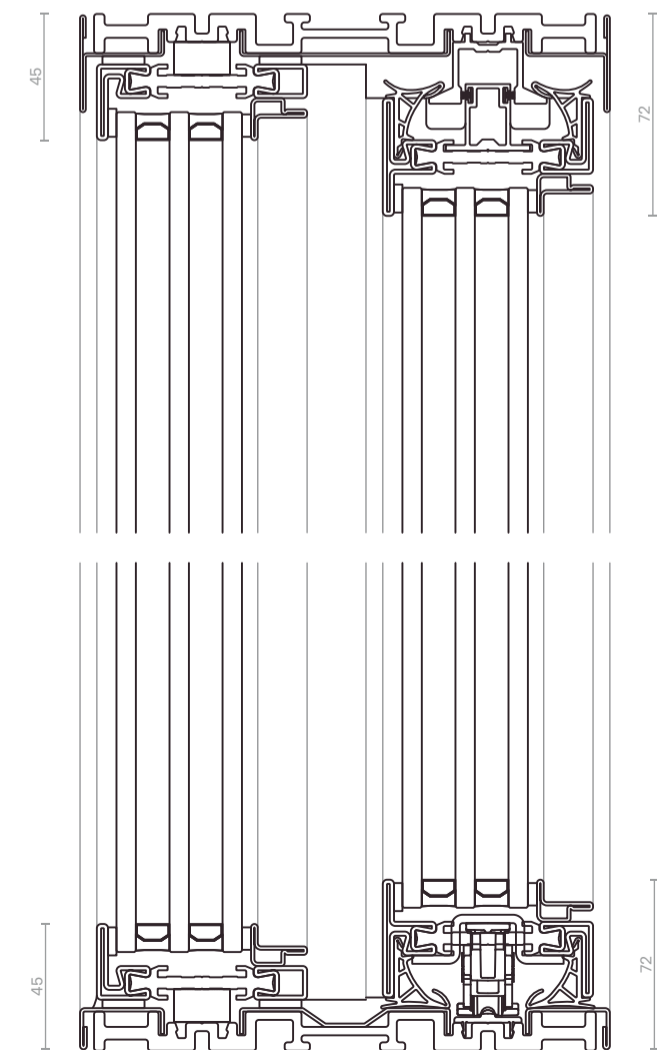


Sliding Doors
Full vent

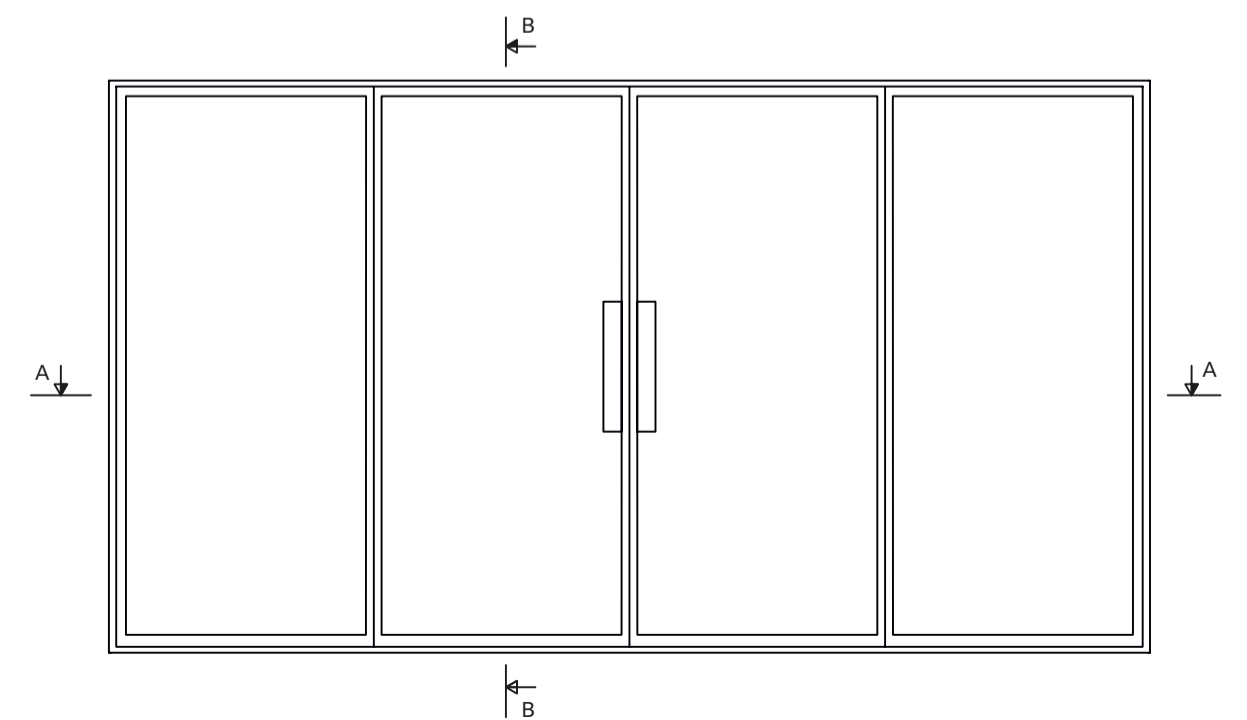
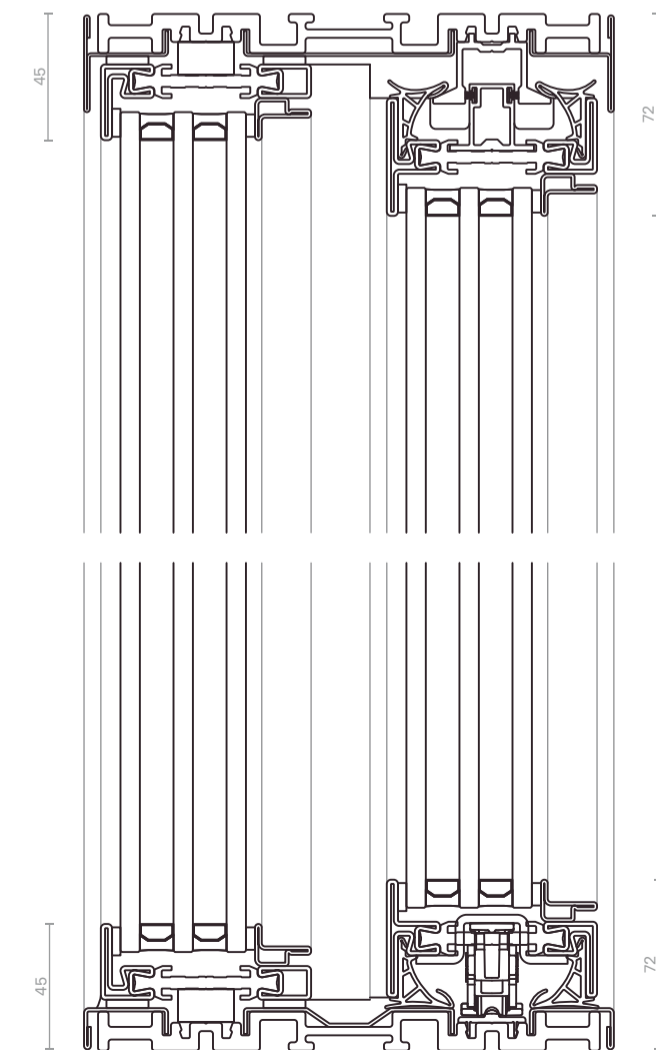
Perla
Slimline Steel G3
Example Drawings



B-B



B-B

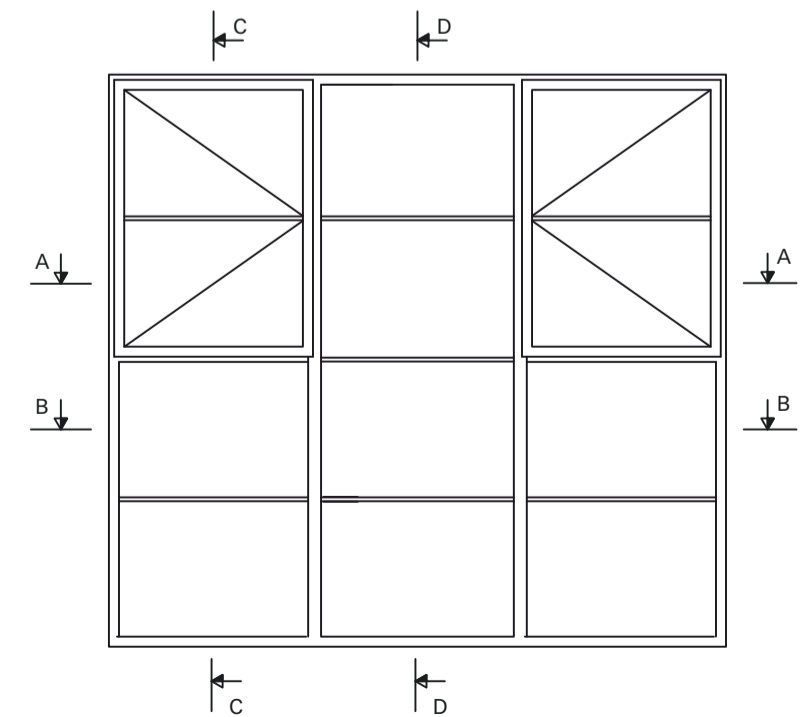
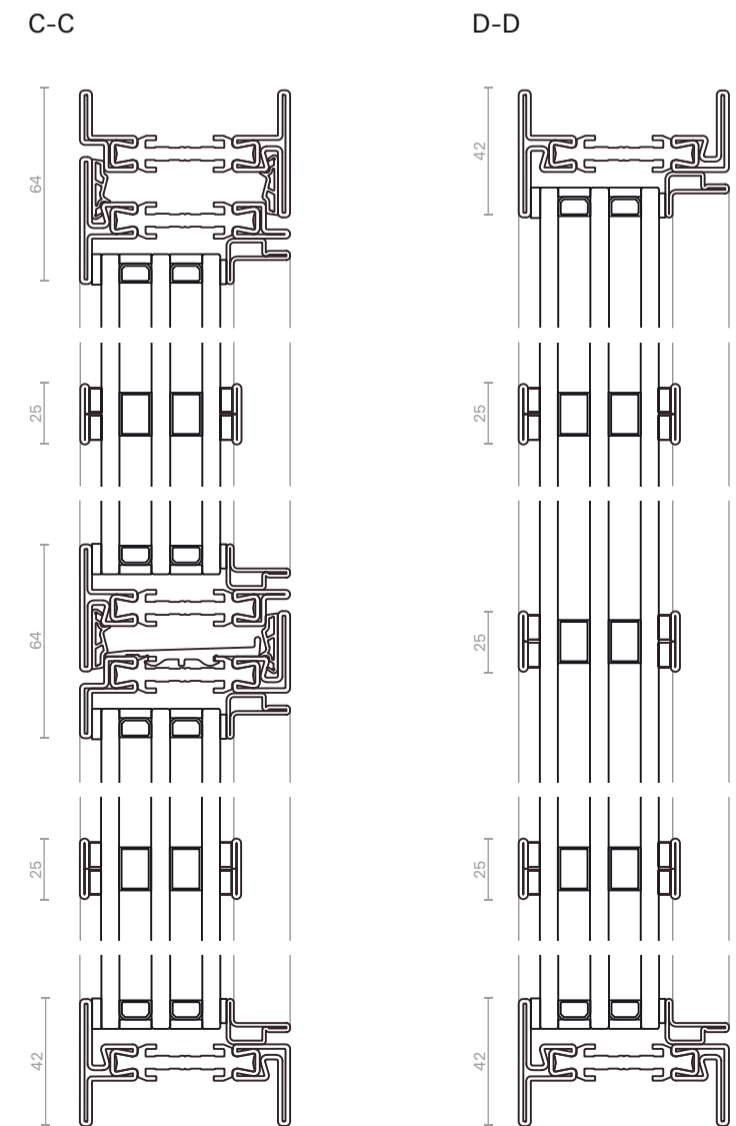
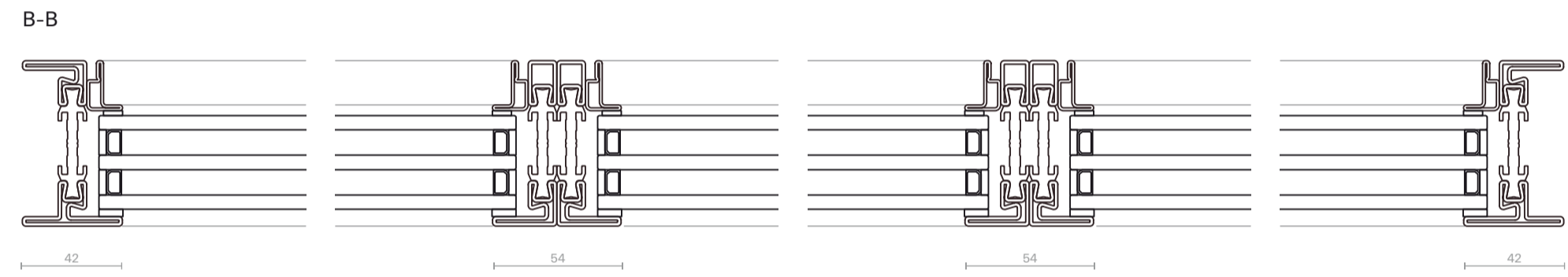
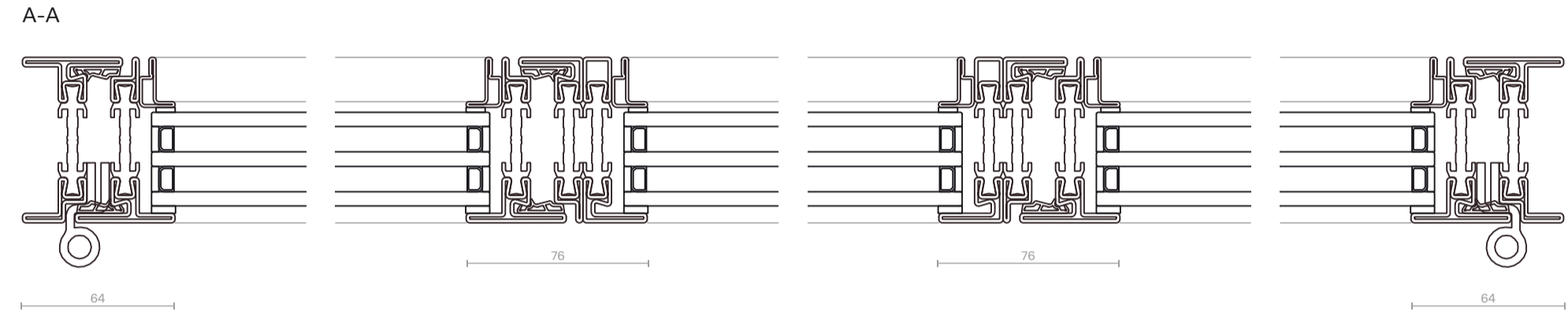
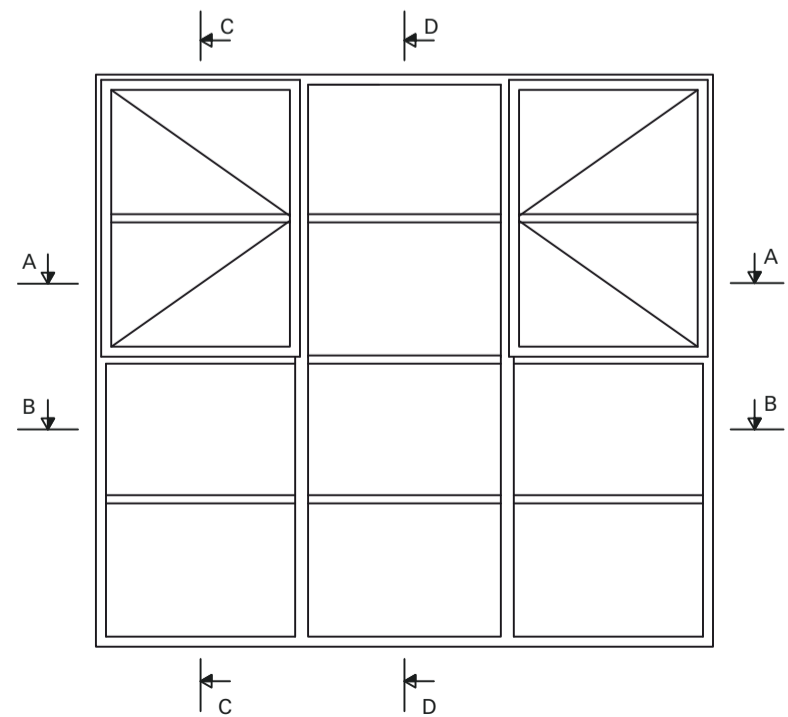
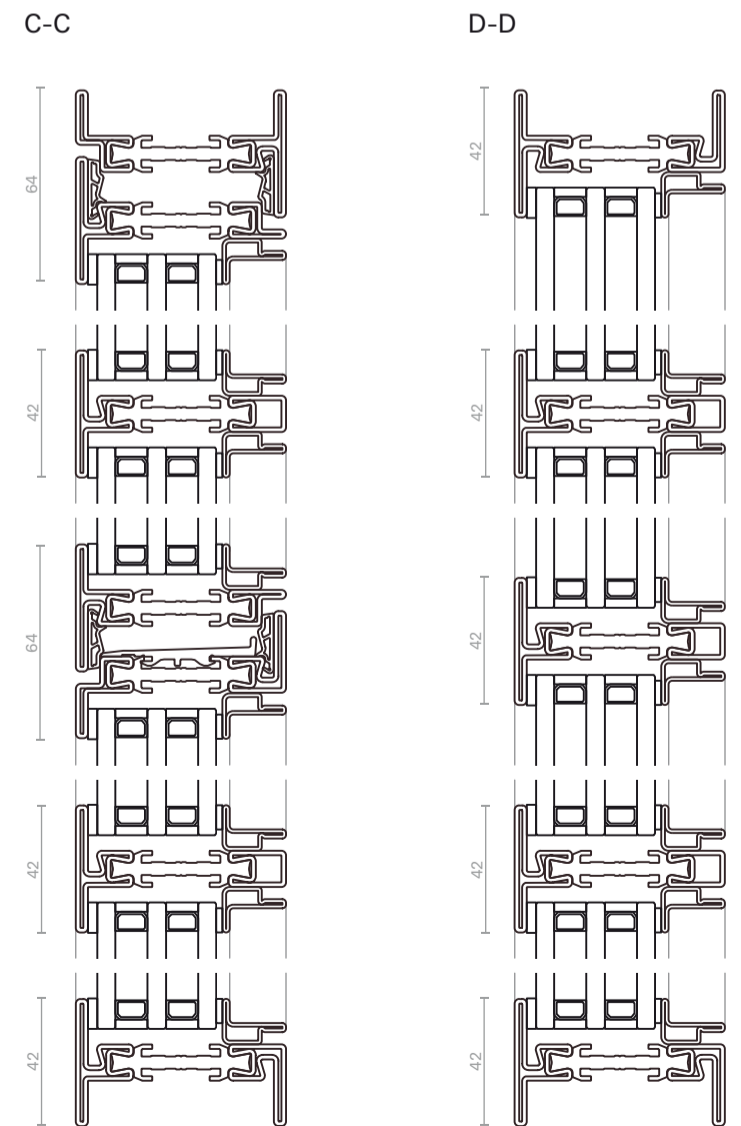
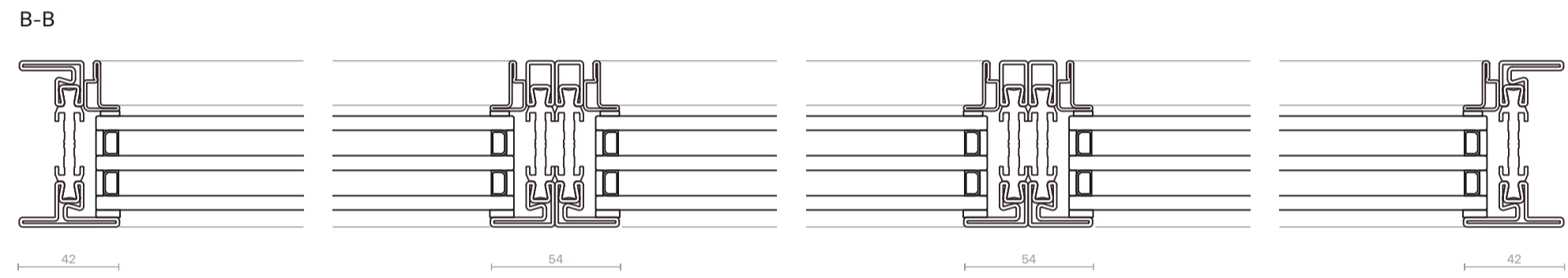
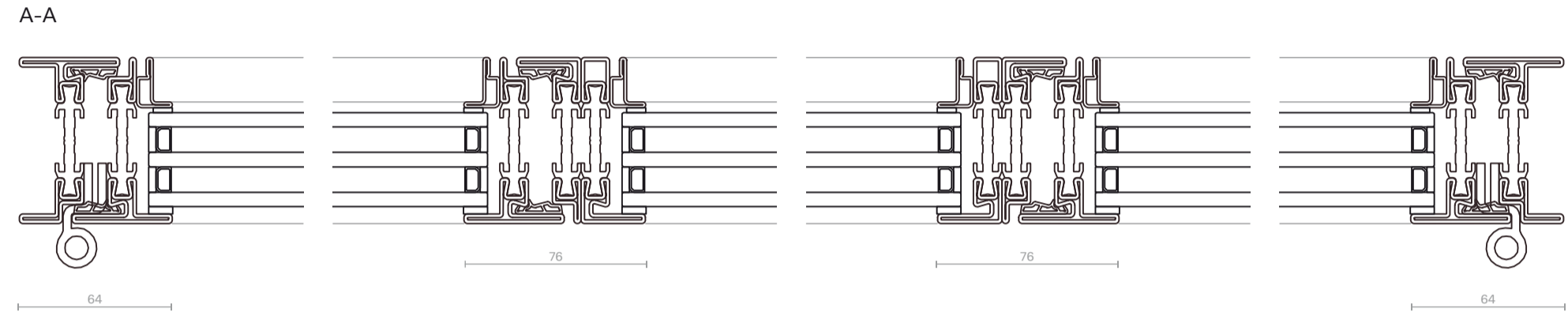


Side hung window
TDL mullion

Perla
Slimline Steel G3
Example Drawings

Side hung window
SDL mullion

Perla
Slimline Steel G3
Example Drawings



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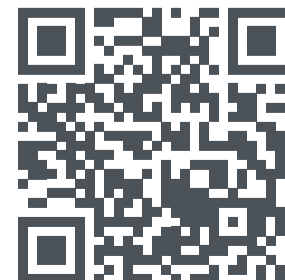
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