



ENERGY WP 5000

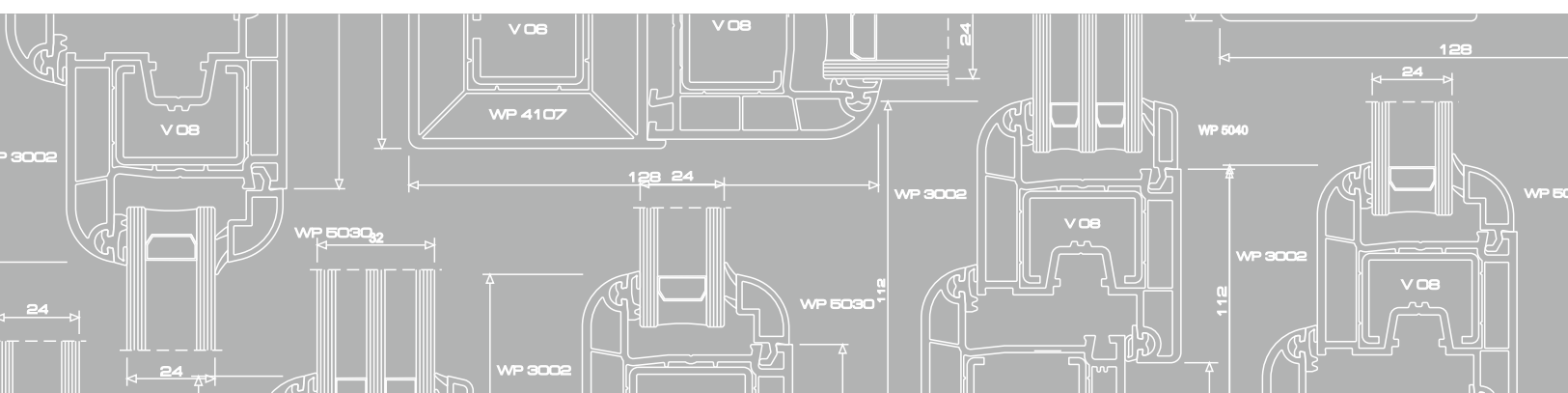


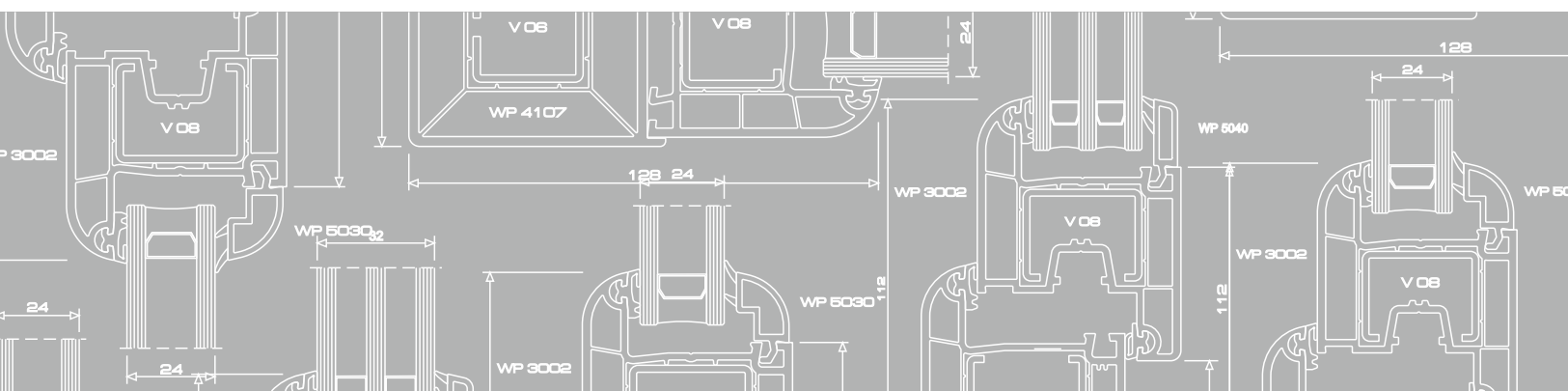
TECHNICAL CATALOGUE

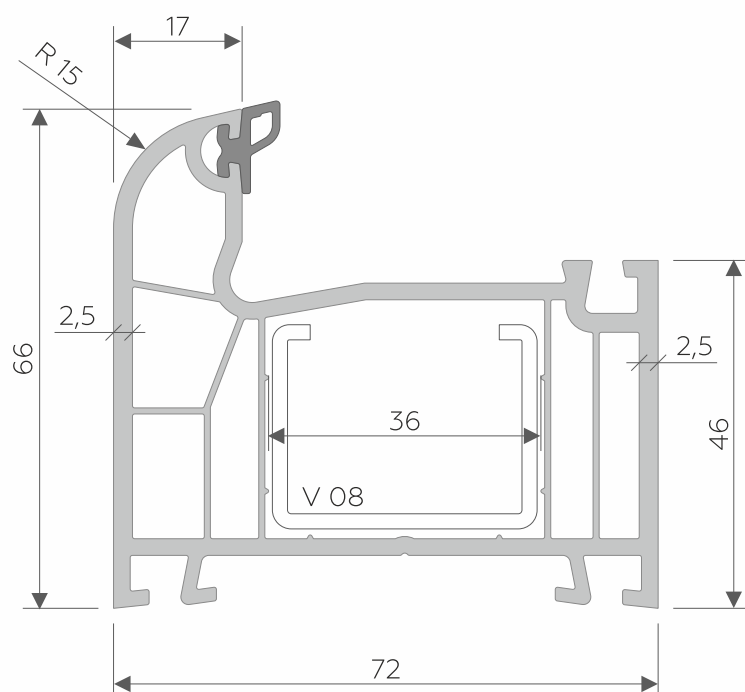
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TECHNICAL CATALOGUE PVC SYSTEM ENERGY WP 5000

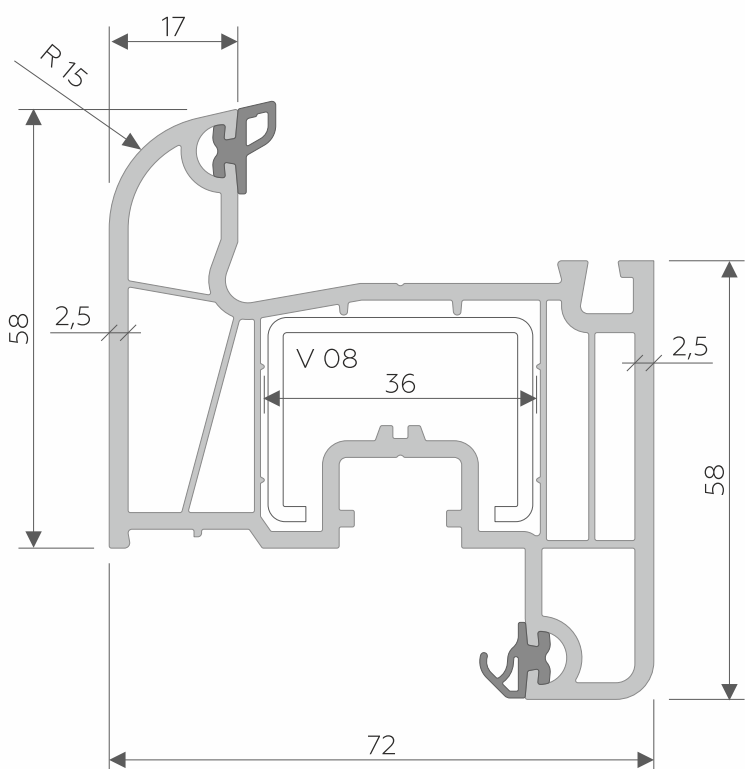






Frame profile

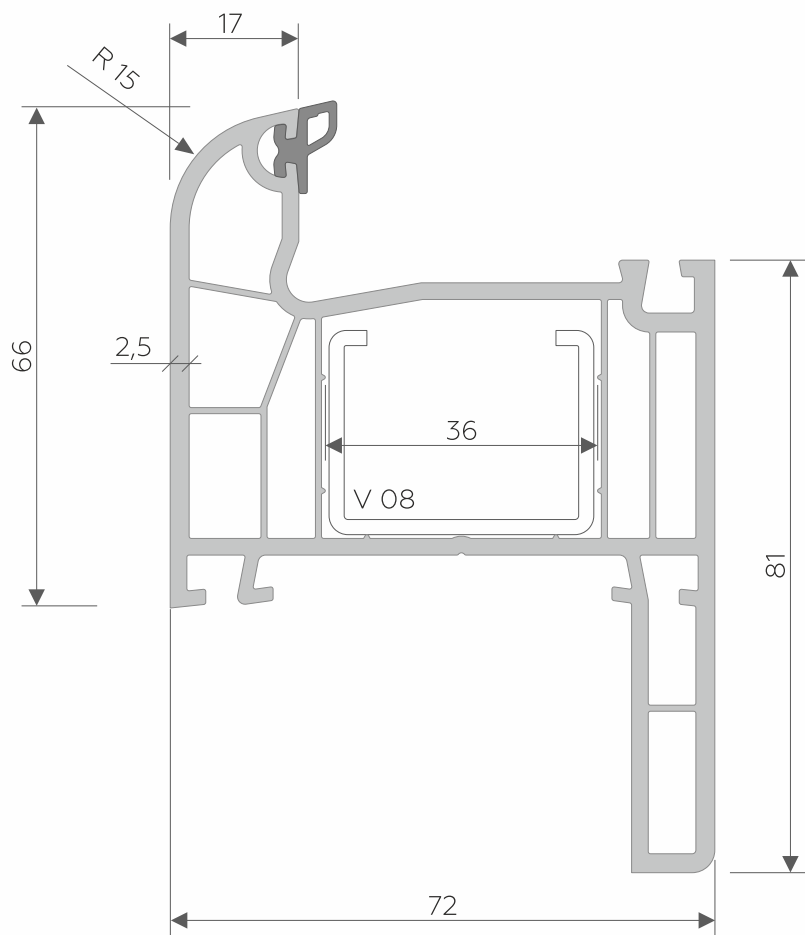
WP 5001
ENERGY



Sash profile

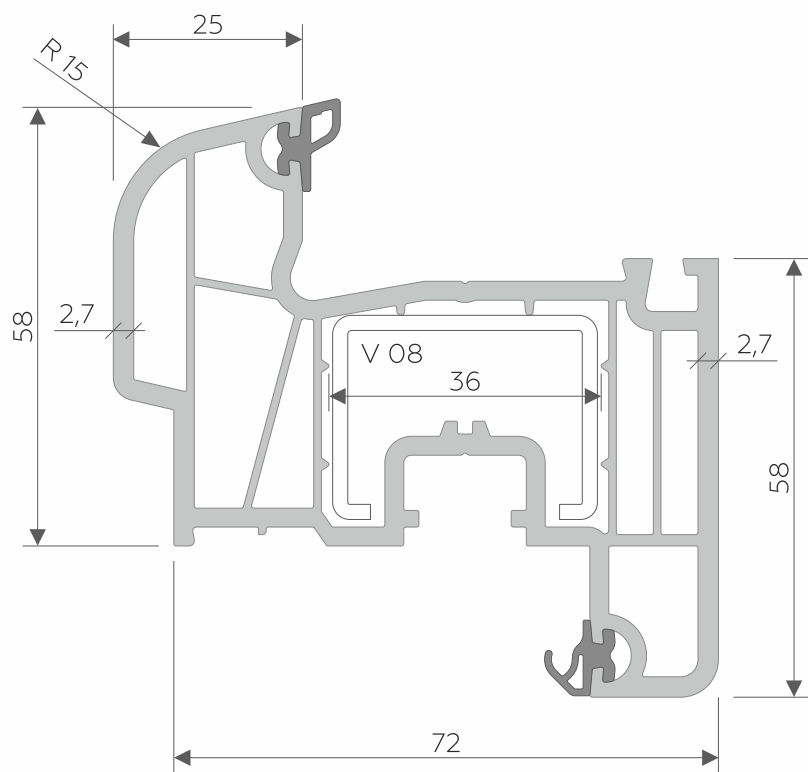
WP 5002
ENERGY

ENERGY WP 5000



Frame profile

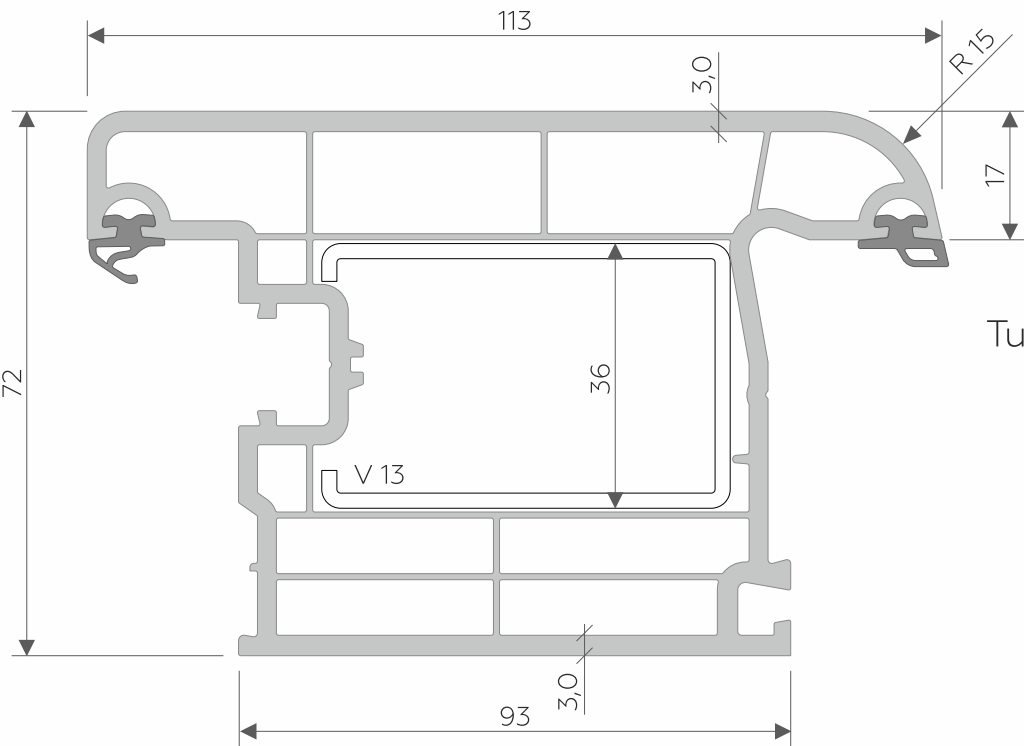
WP 5035
ENERGY



Sash profile

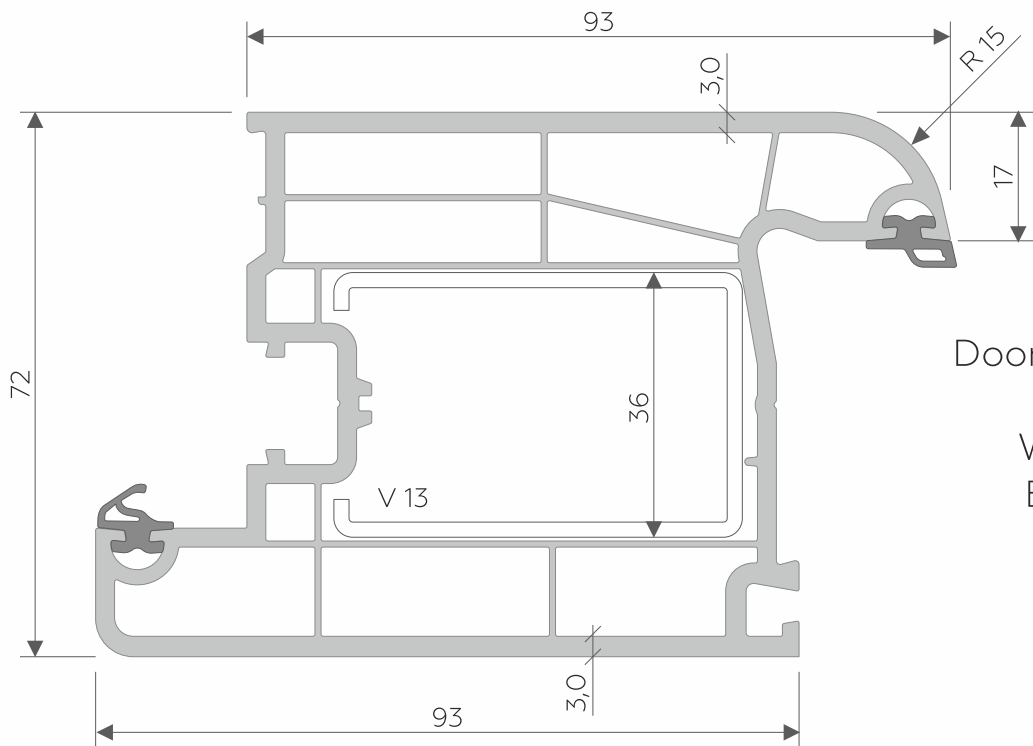
WP 5010
ENERGY

ENERGY WP 5000



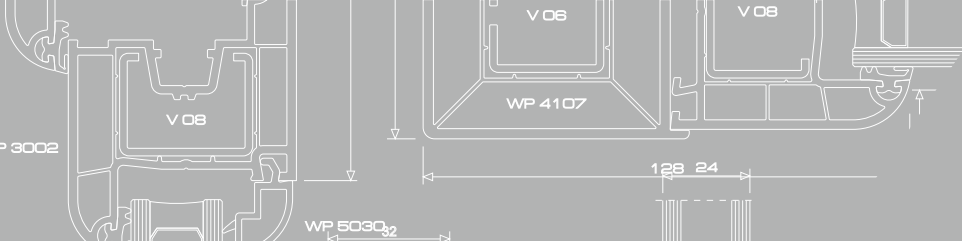
Turned over door
sash profile

WP 5005
ENERGY

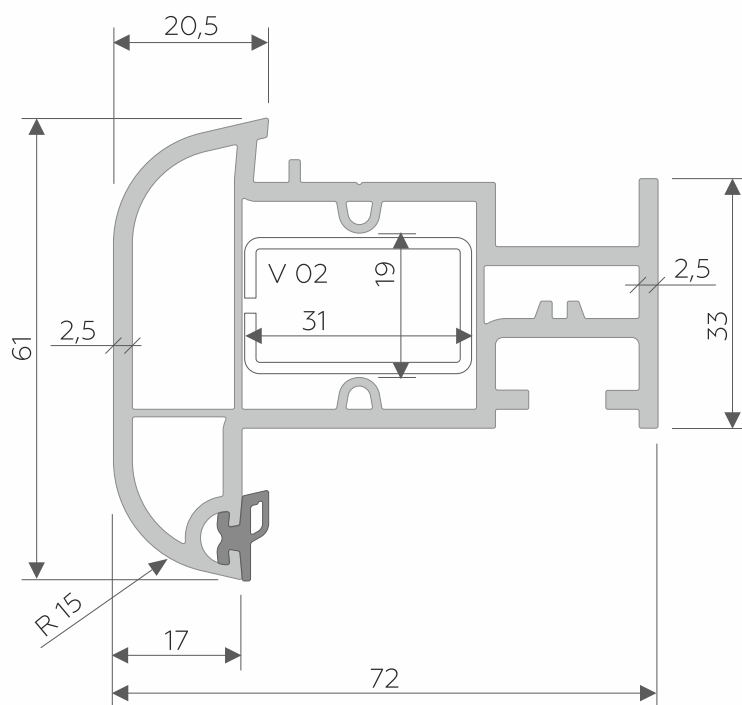


Door sash profile

WP 5004
ENERGY

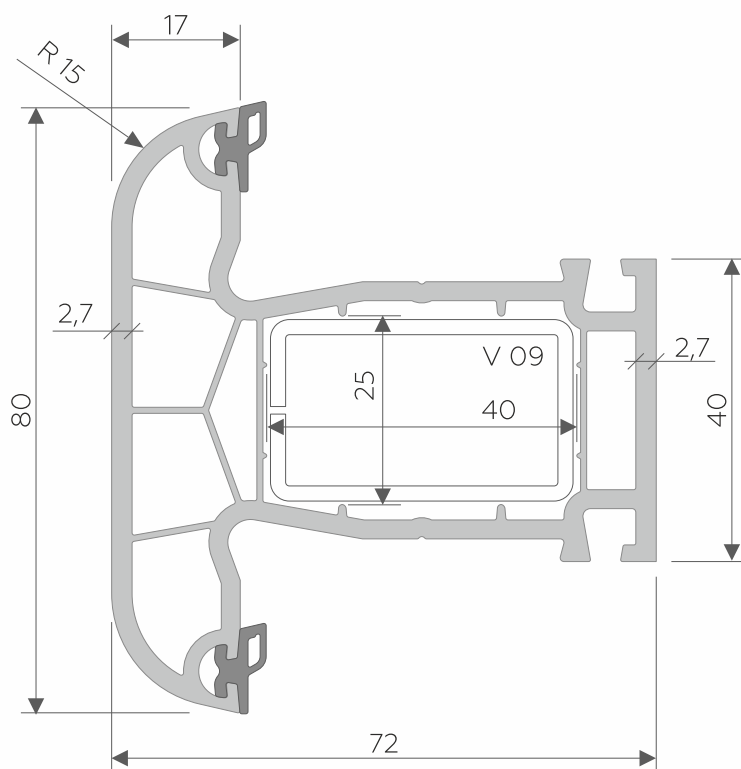


ENERGY WP 5000



Lap joint profile

WP 5006
ENERGY



Mullion profile

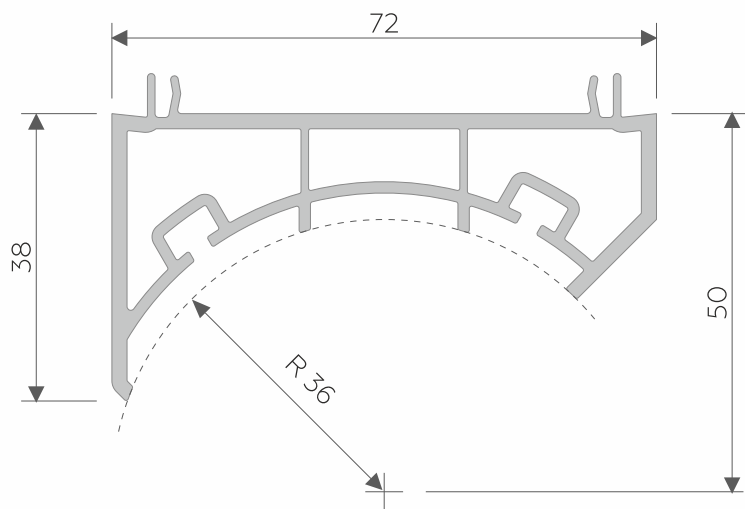
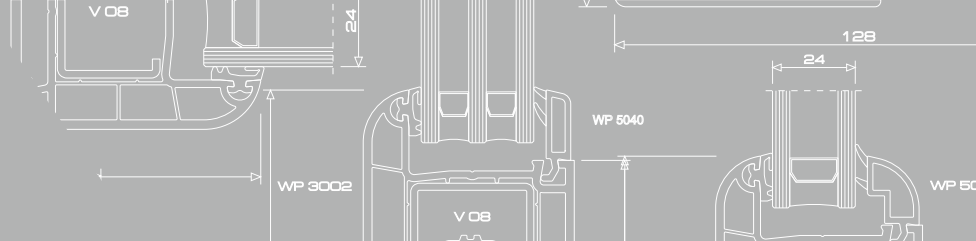
WP 5003
ENERGY



Technical drawing of a rectangular frame. The vertical dimension is labeled 30 and the horizontal dimension is labeled 72. The frame consists of a top rail, a bottom rail, and two vertical stiles. The top and bottom rails have a complex profile with multiple steps and a central recessed area. The vertical stiles are simple rectangular bars.

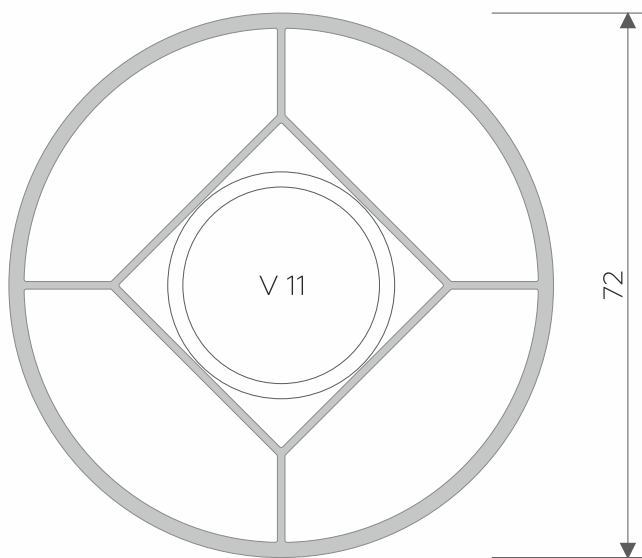
Frame extension

WP 5008
ENERGY



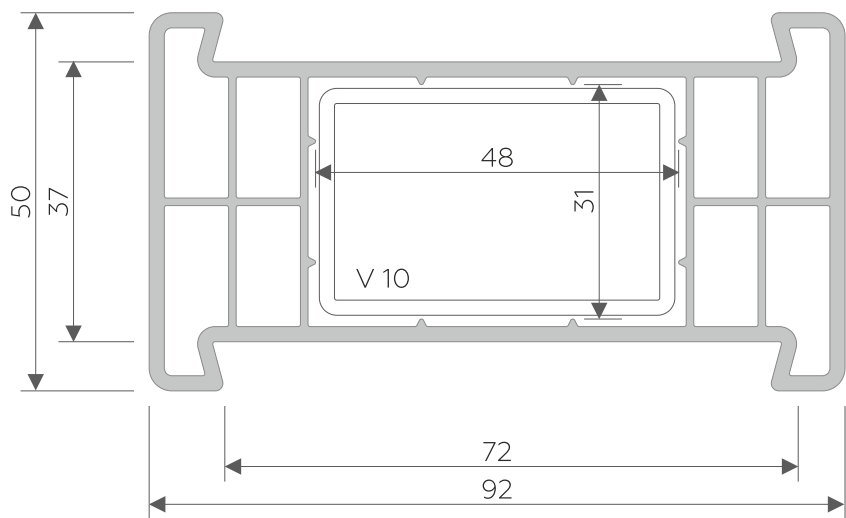
Corner lag profile

WP 5009
ENERGY



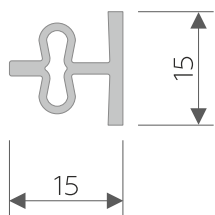
Pipe profile

WP 5011
ENERGY



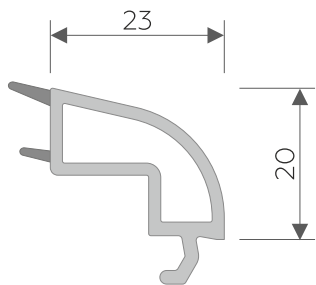
Coupling profile

WP 5013
ENERGY



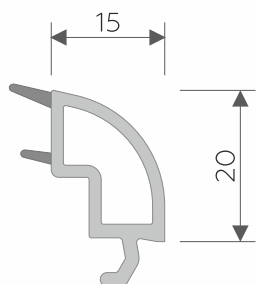
Coupling profile

WP 5012
ENERGY



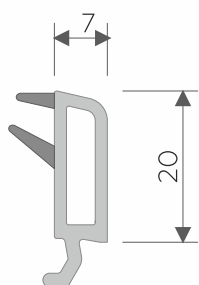
Glass bead 24 mm

WP 5020
ENERGY



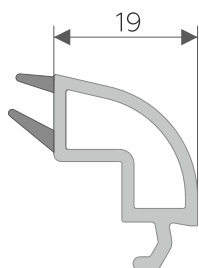
Glass bead 32 mm

WP 5030



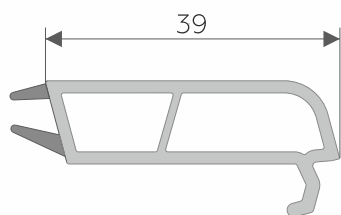
Glass bead 40 mm

WP 5040



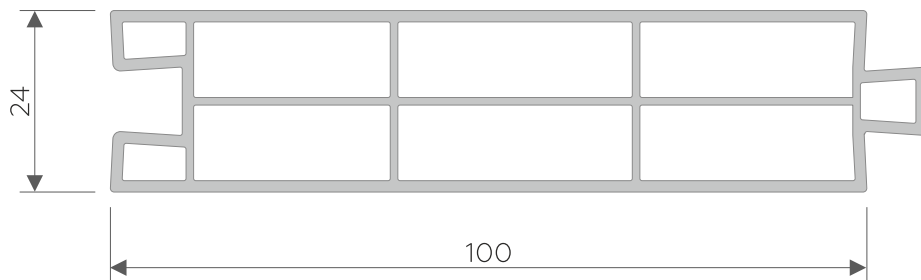
Glass bead 28 mm

WP 5028



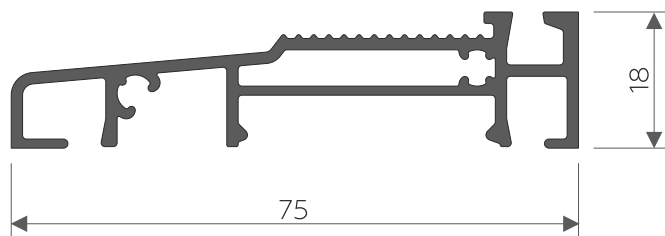
Glass bead 12 mm

WP 5034



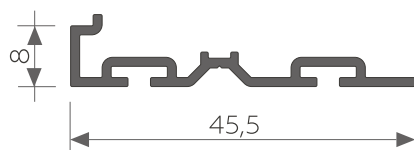
PVC panel 24 mm

WP 4119



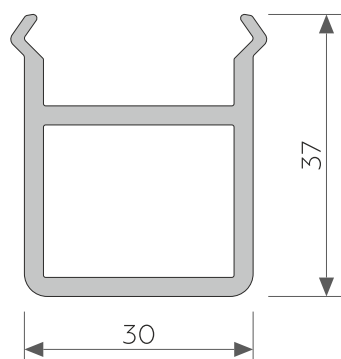
Aluminum door - sill

WP 5065



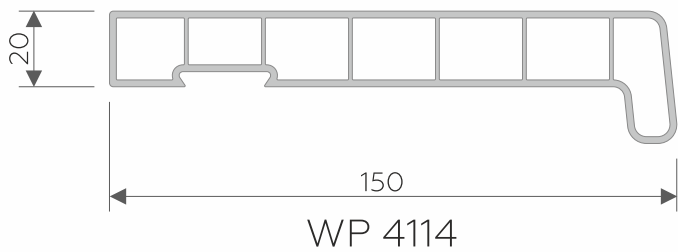
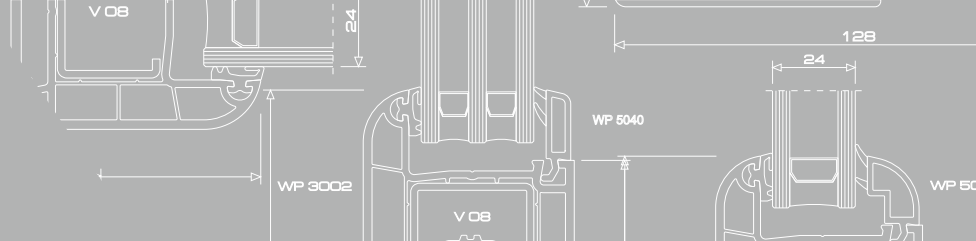
Additional profile for door

WP 4066

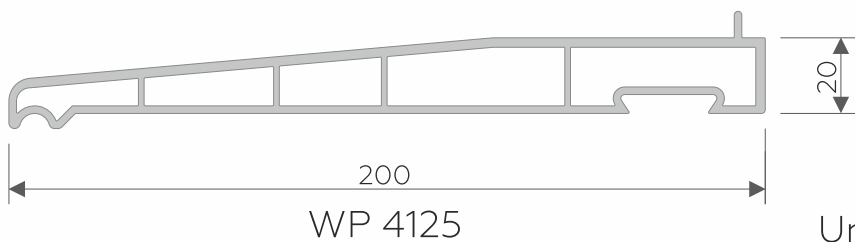
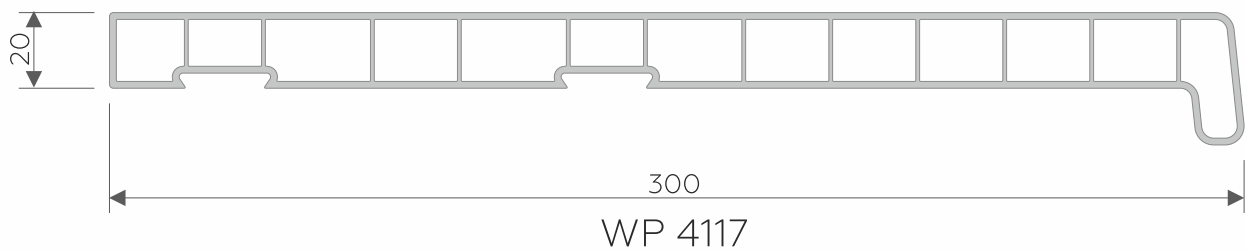
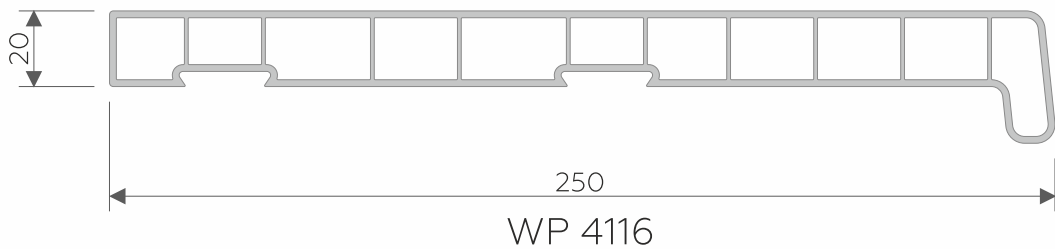
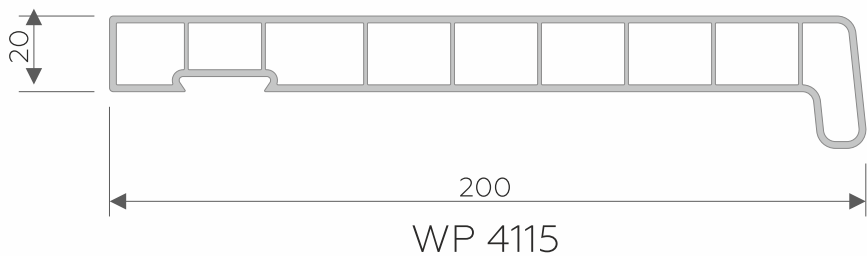


Lifting profile

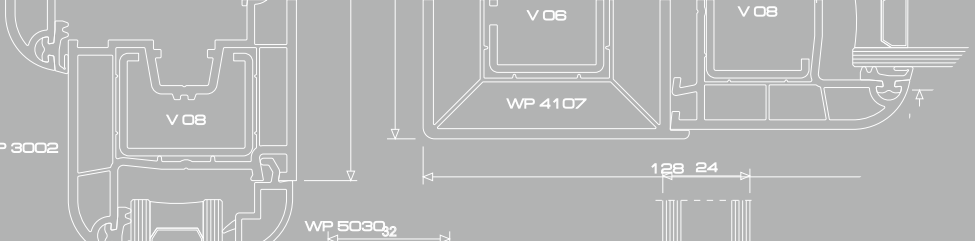
WP 4123



Under window profile internal

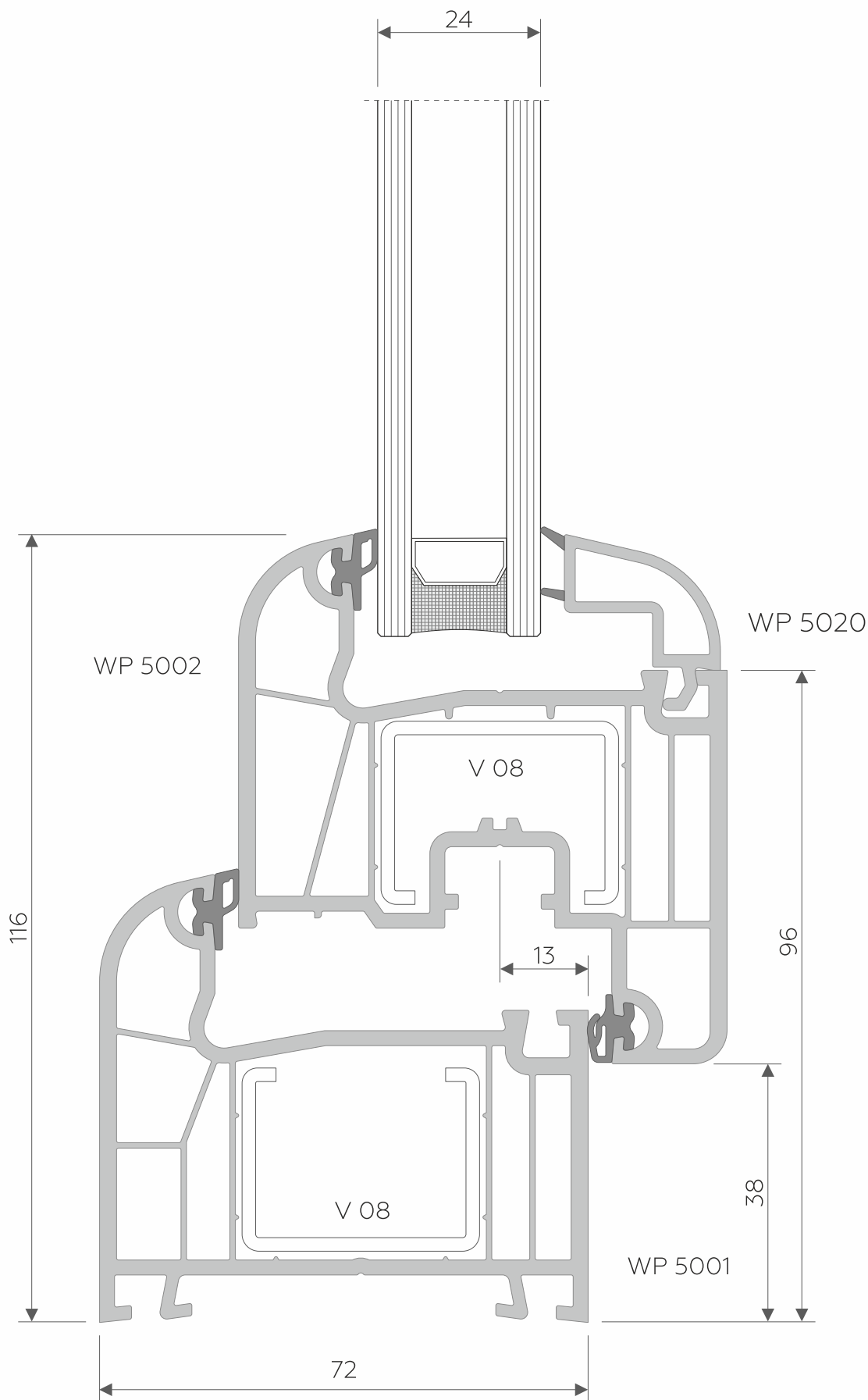


Under window profile internal

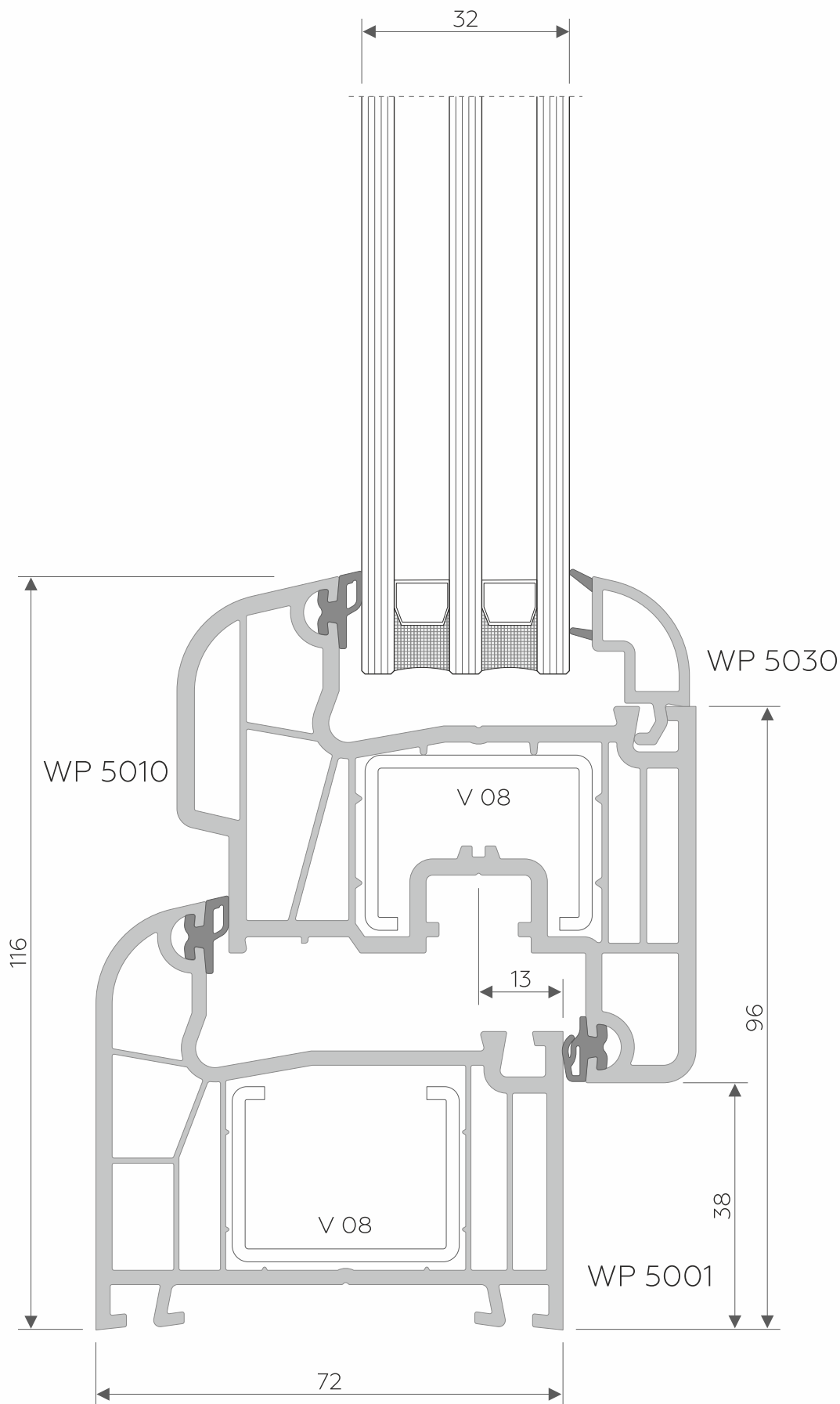


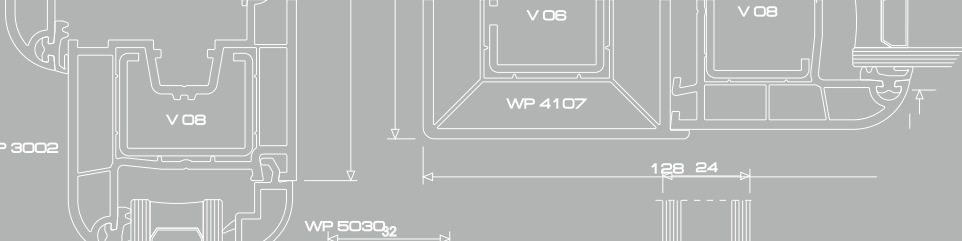
ENERGY WP 5000

Assemblies

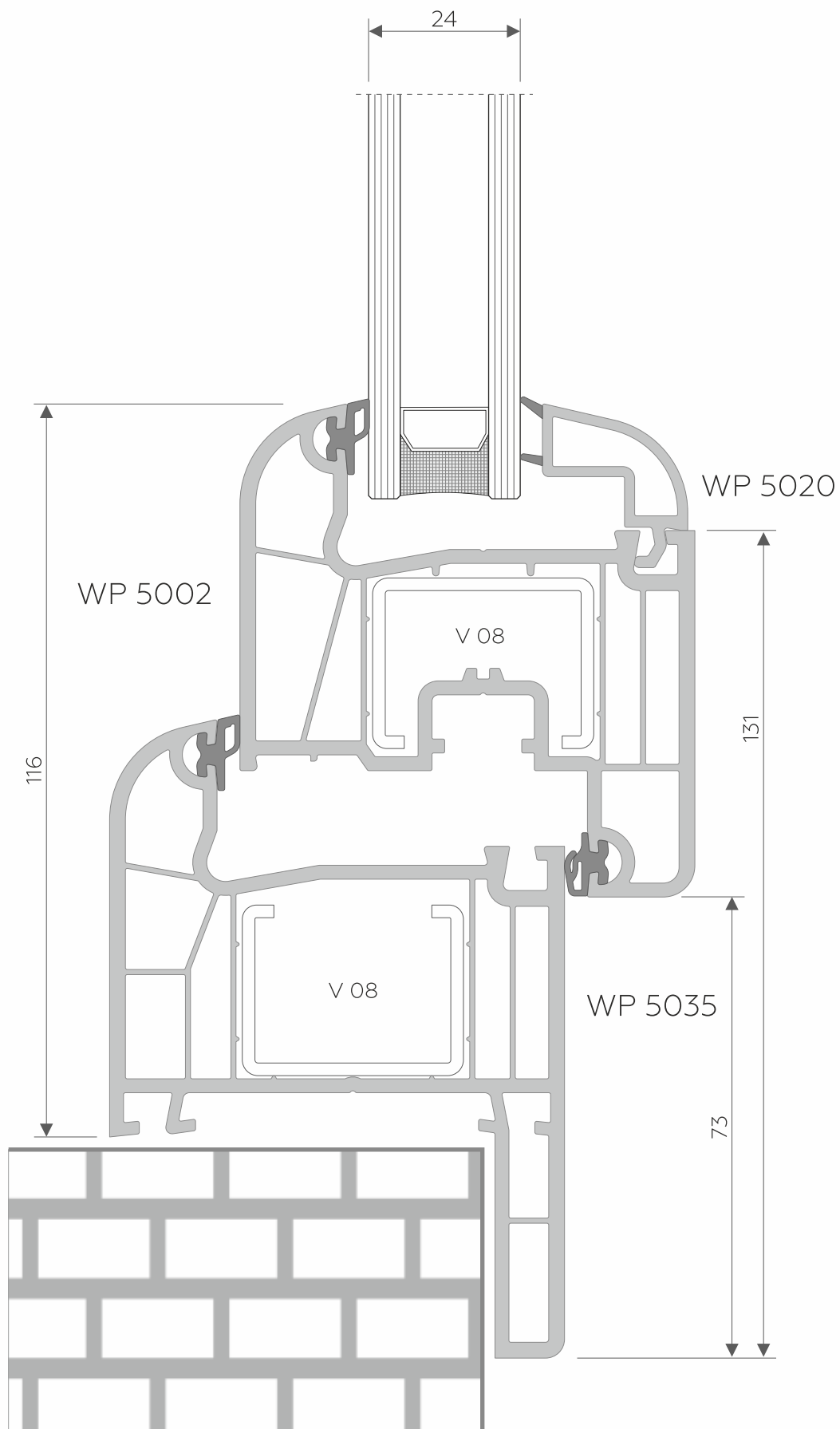


ENERGY WP 5000

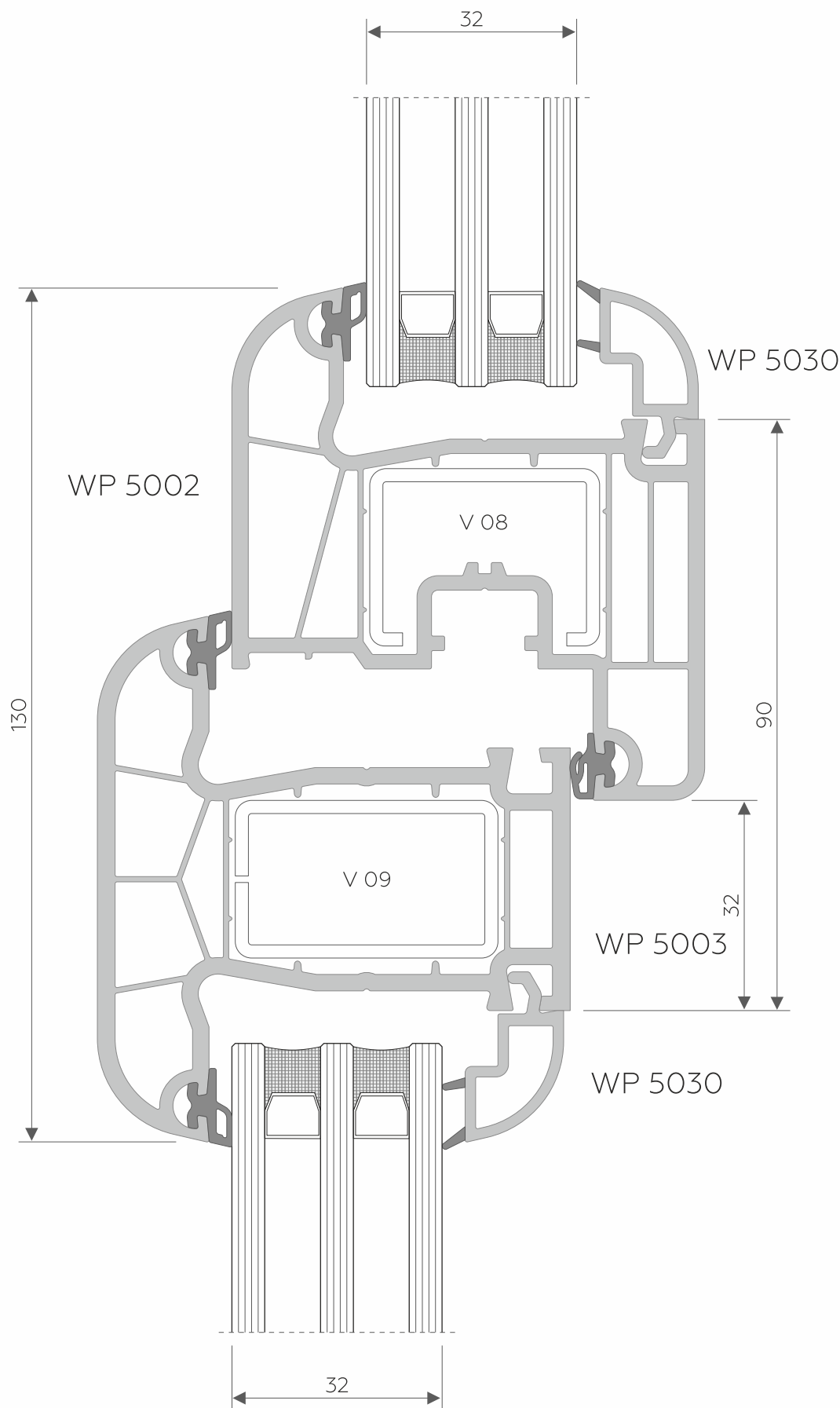


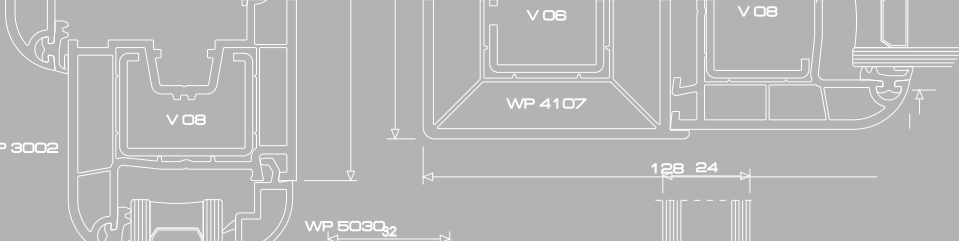


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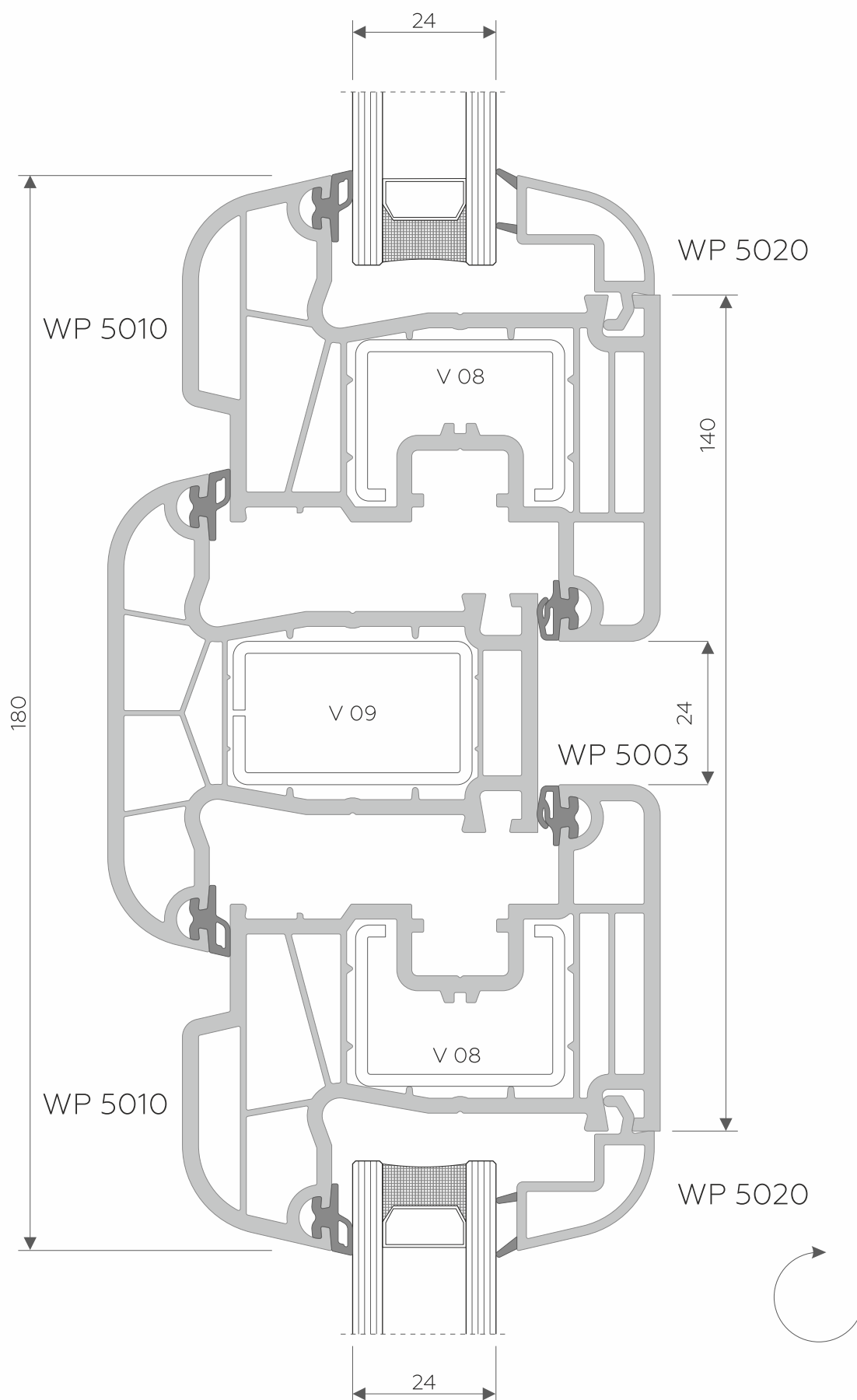


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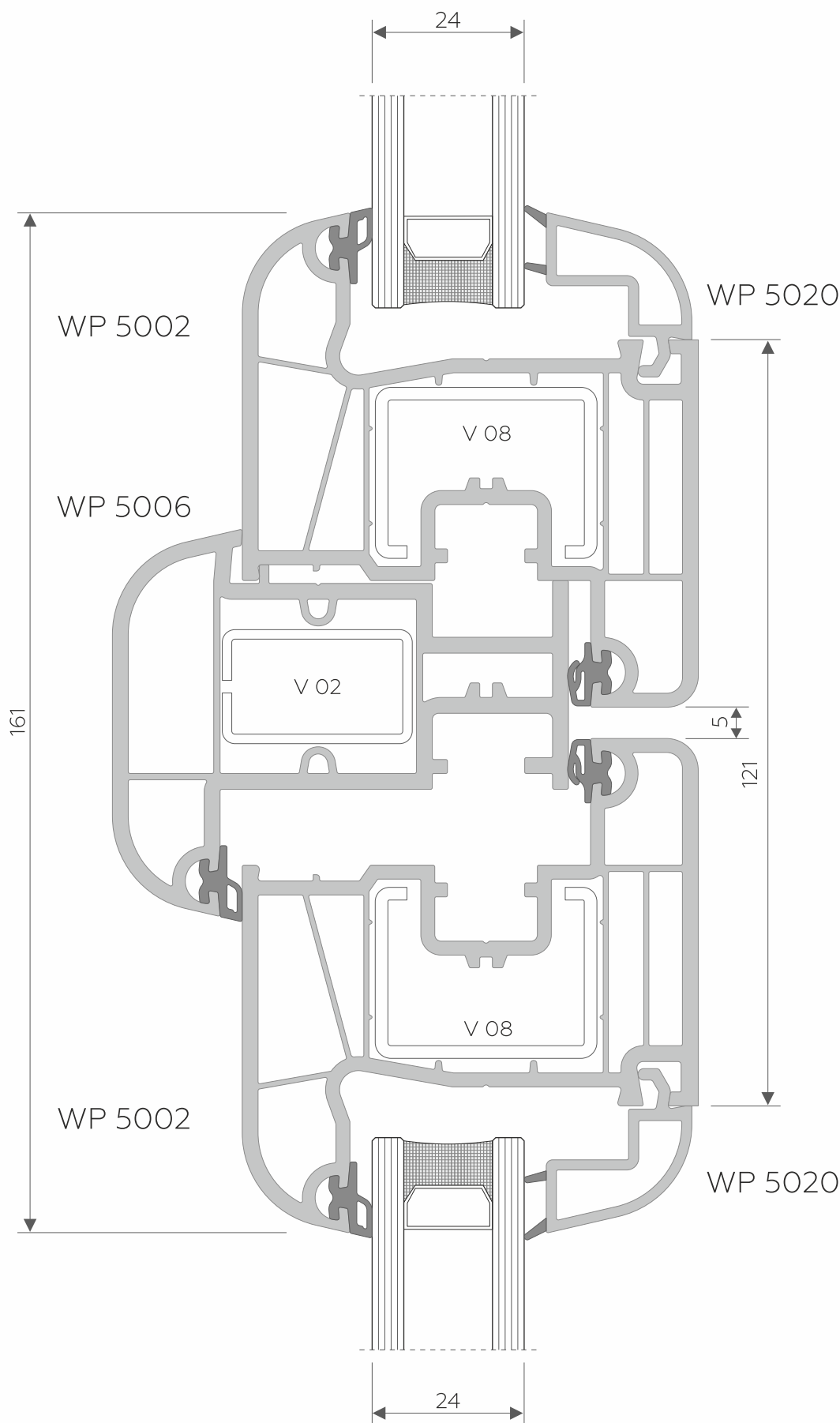




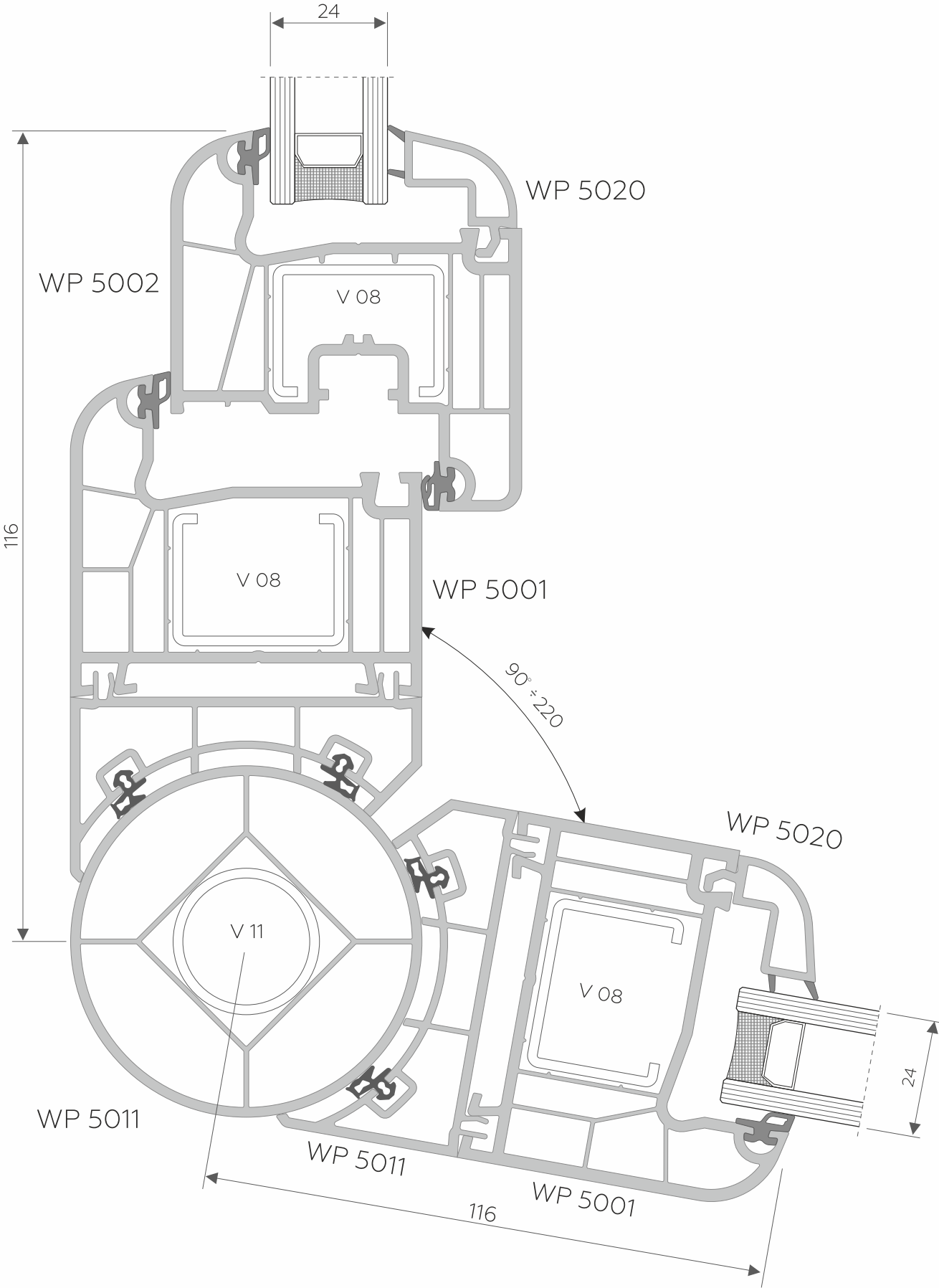
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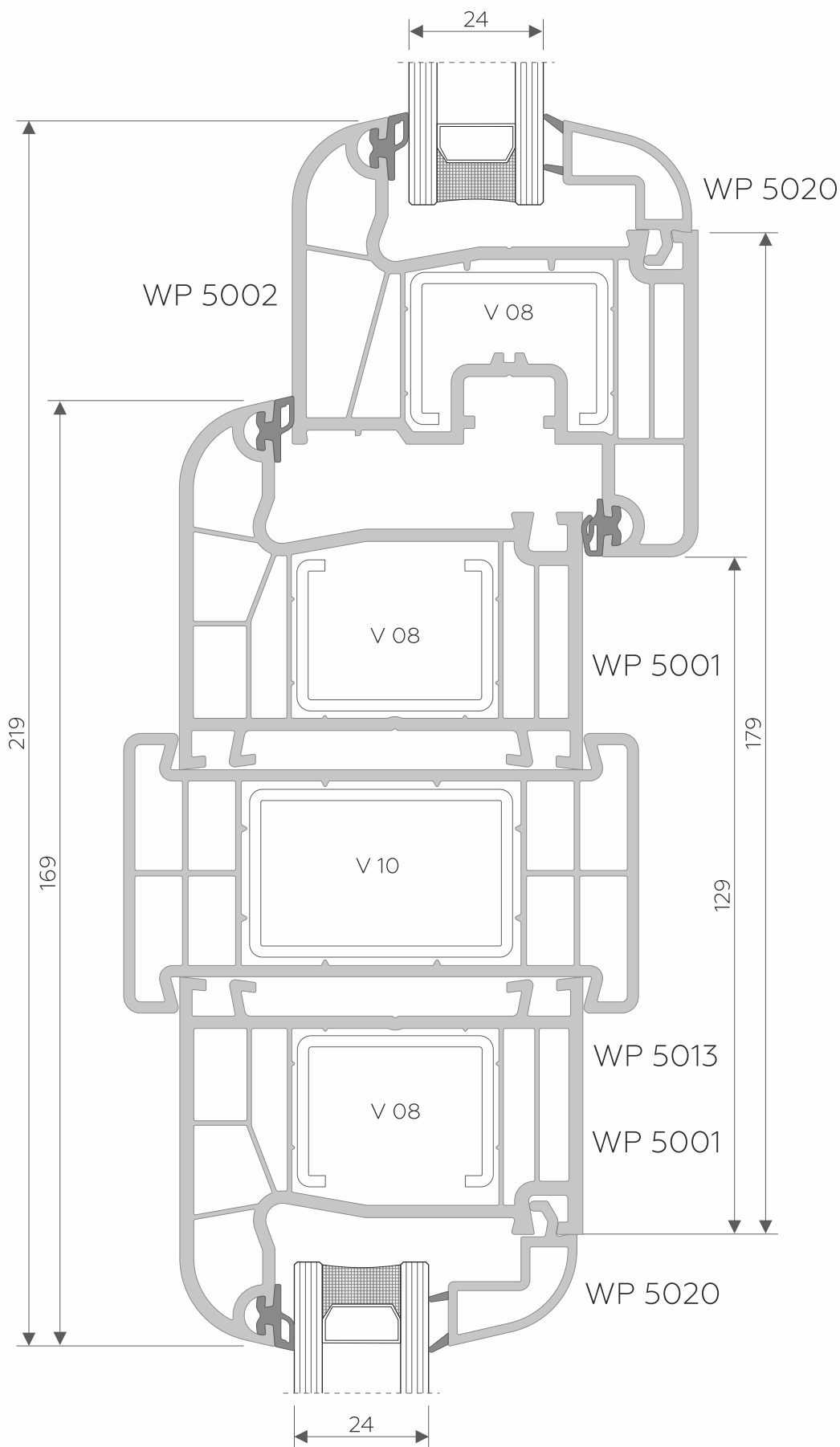


ENERGY WP 5000

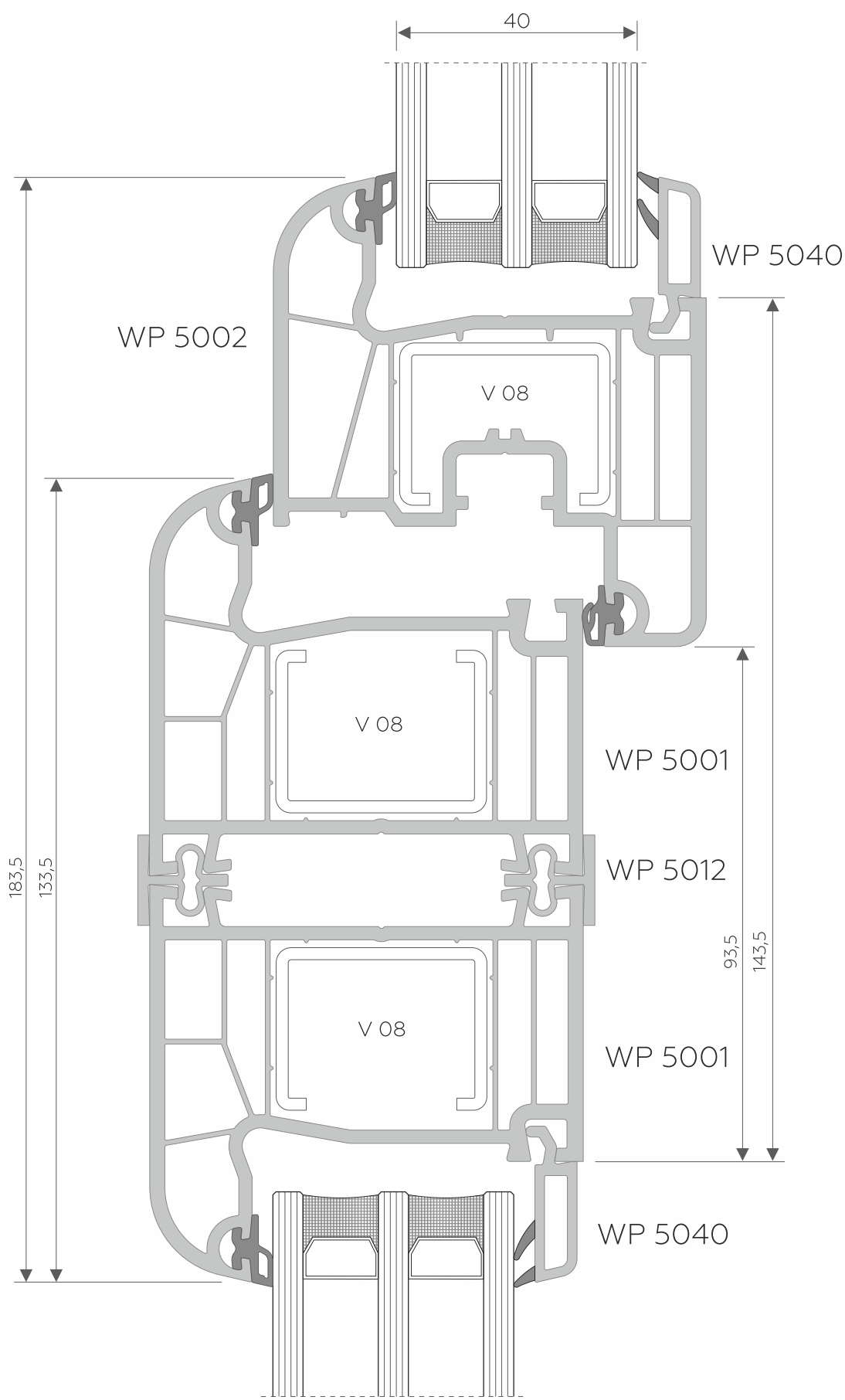


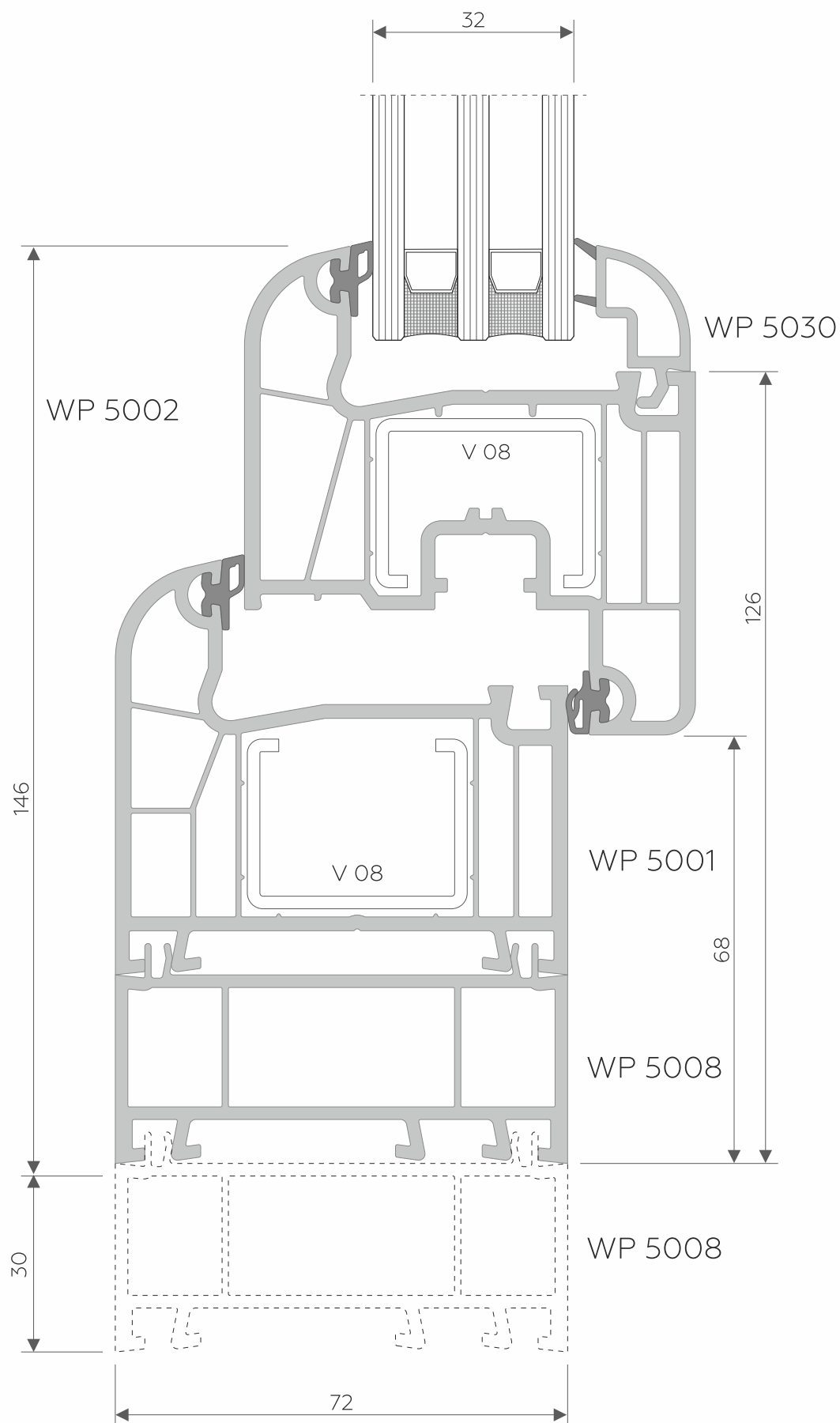
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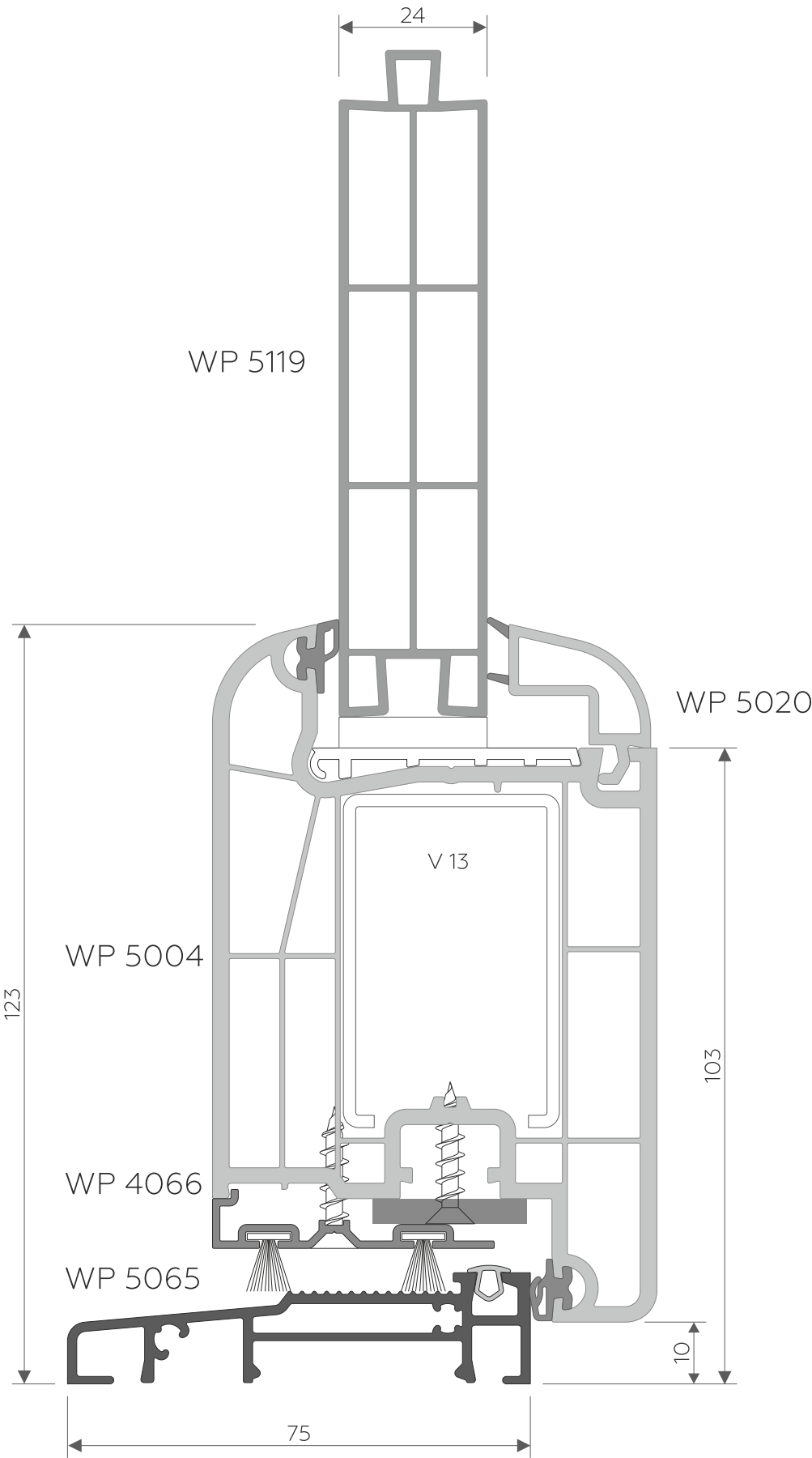


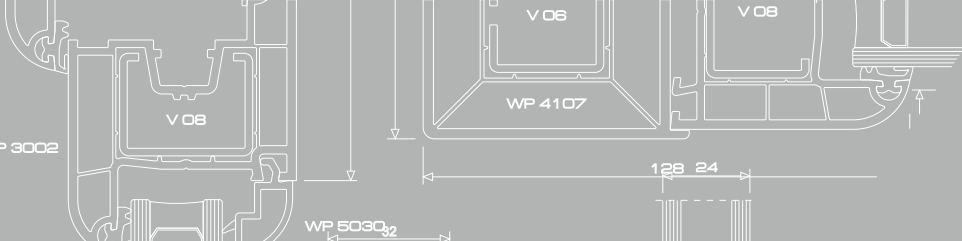
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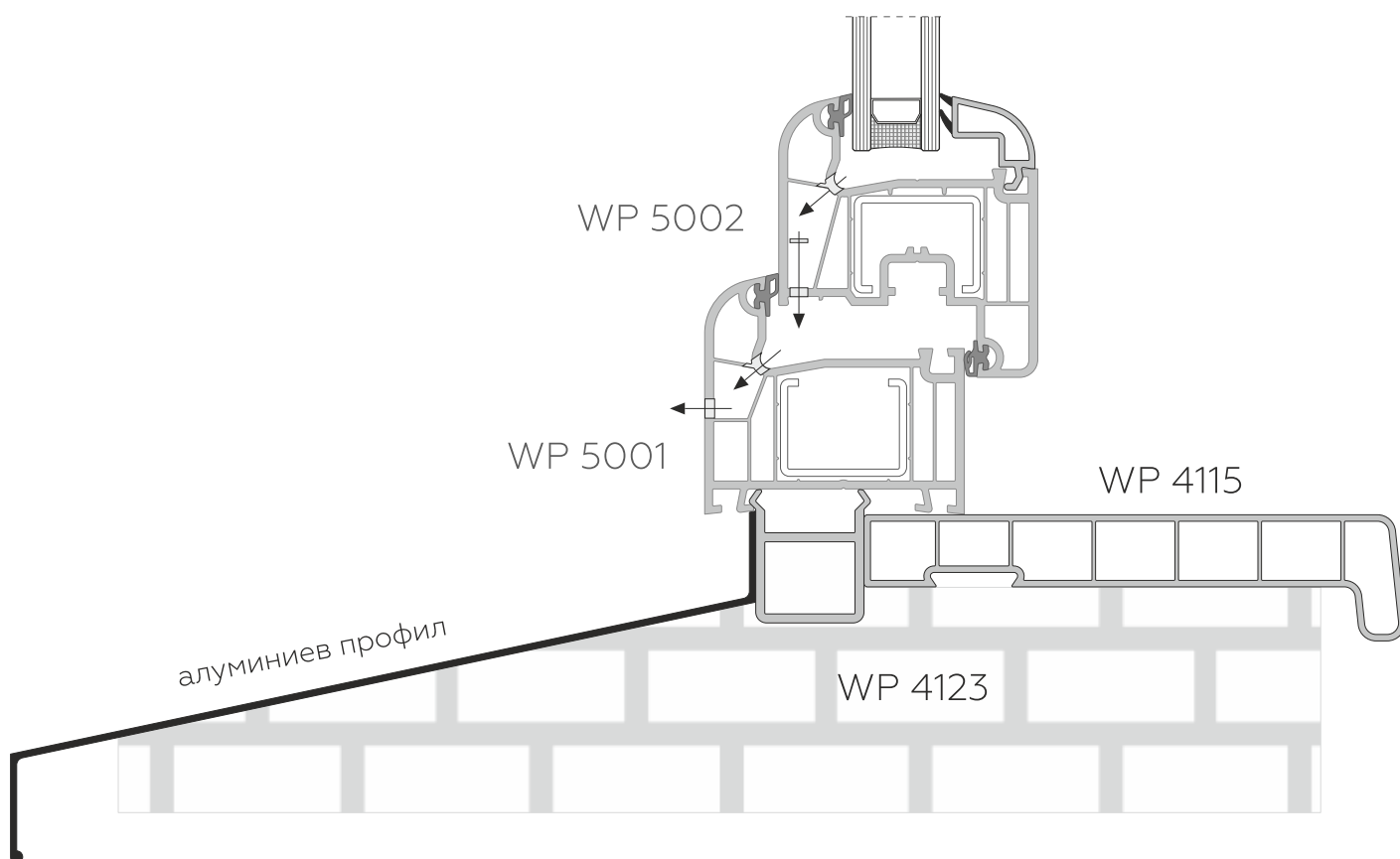
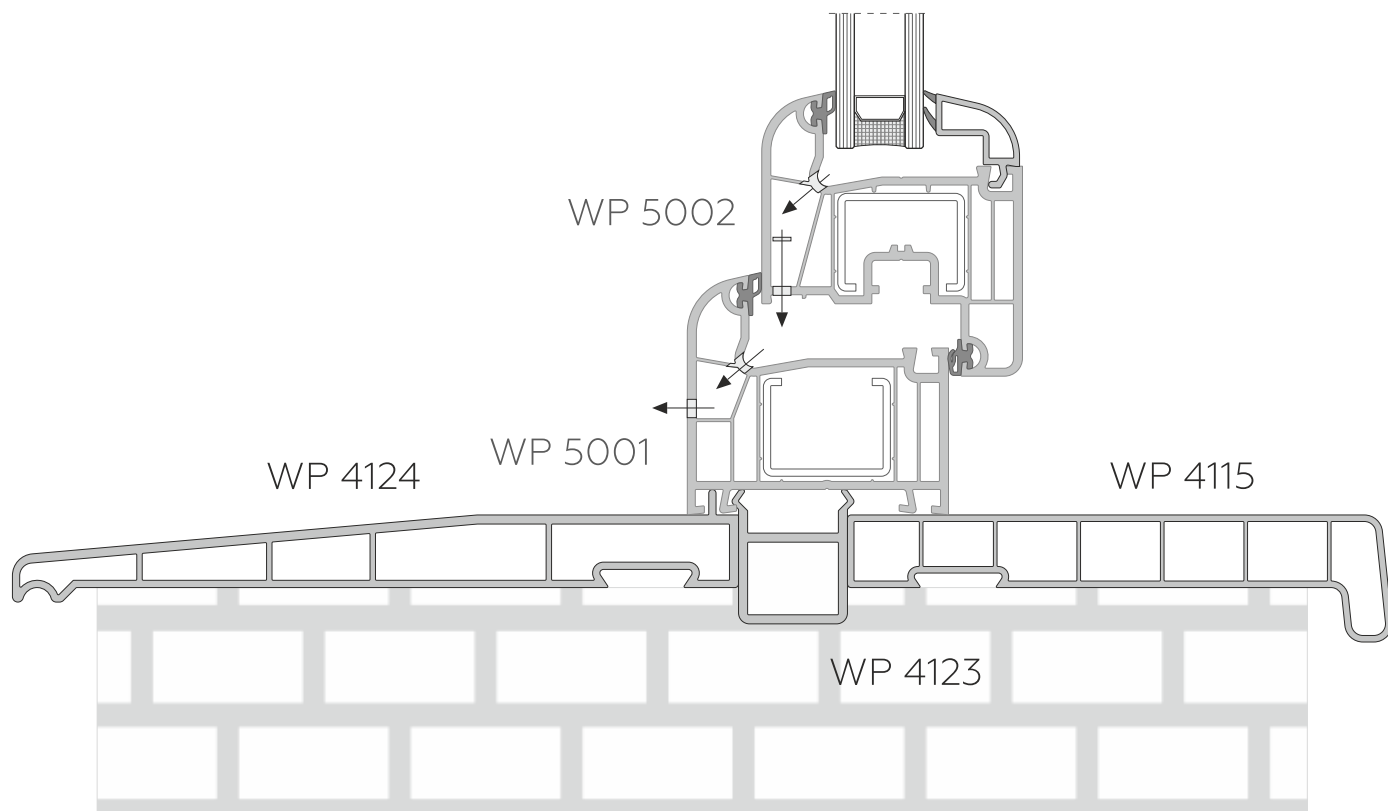


ENERGY WP 5000



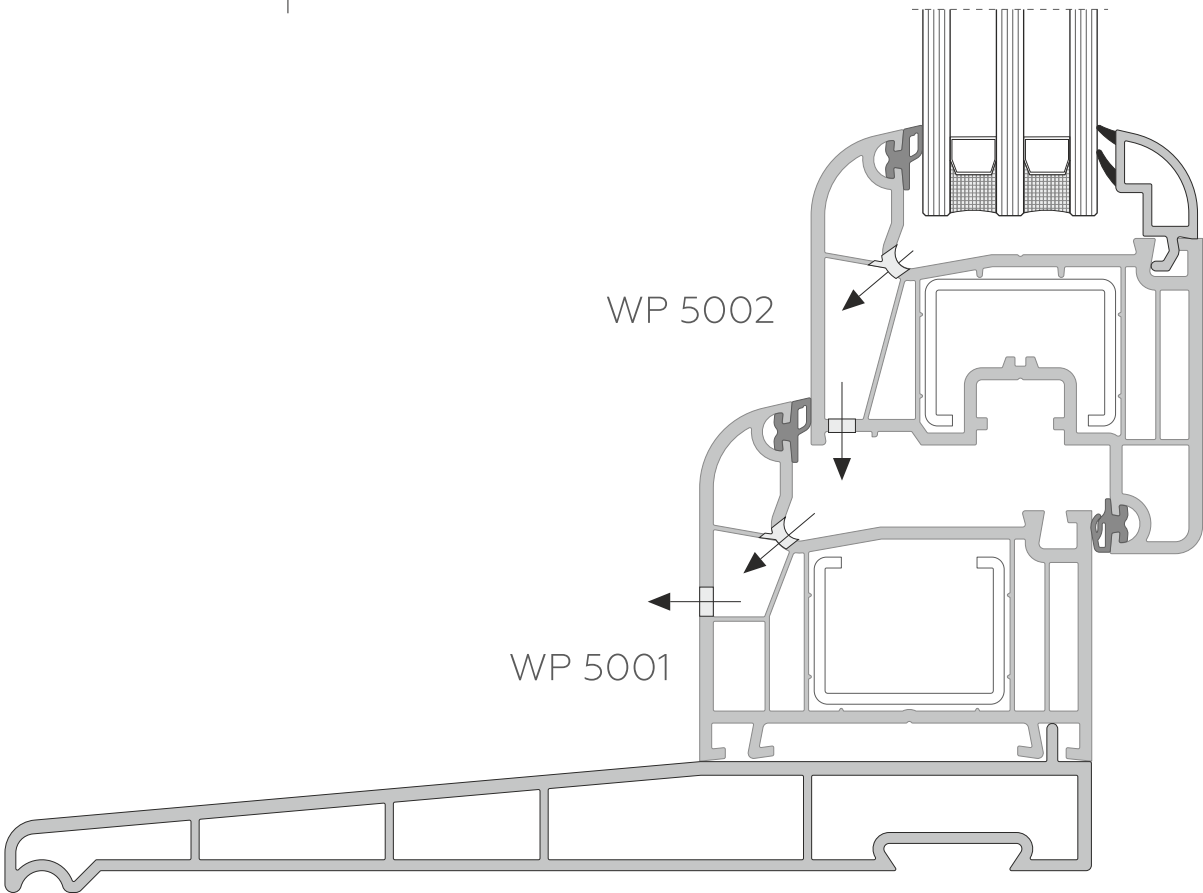
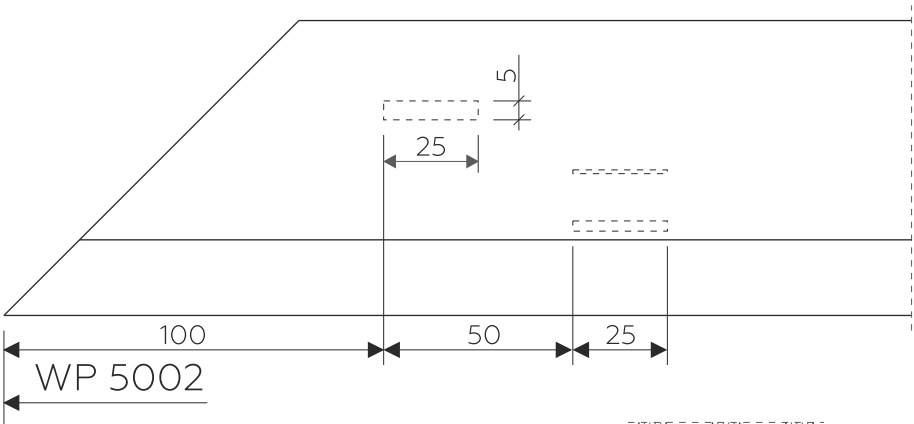
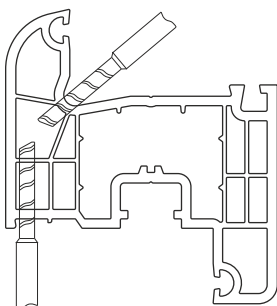
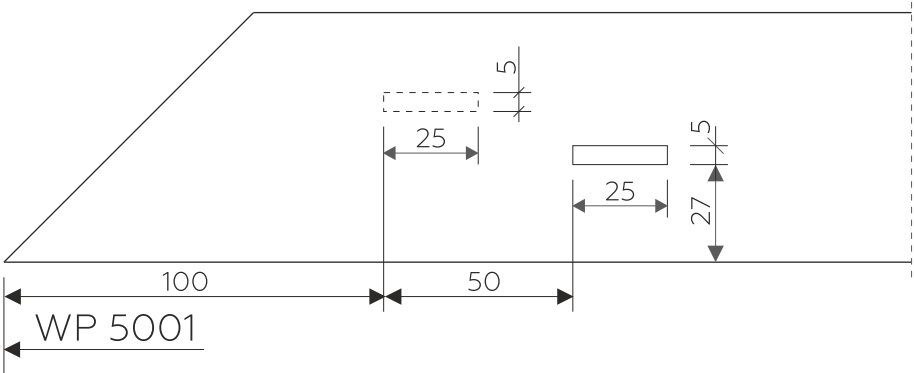
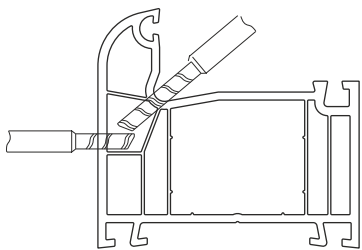


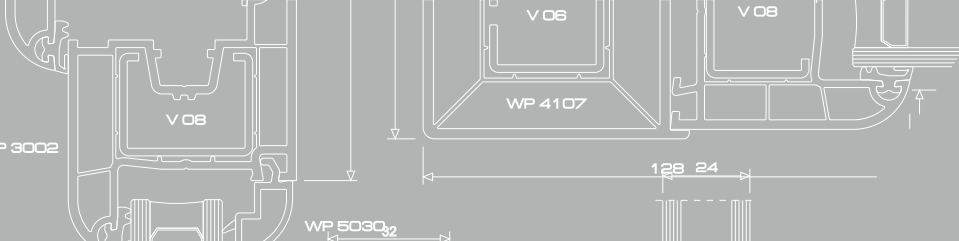
ENERGY WP 5000



ENERGY WP 5000

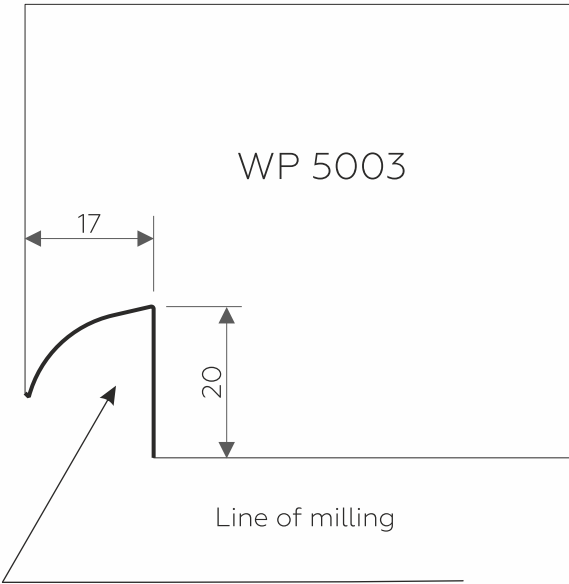
Drainage diagram



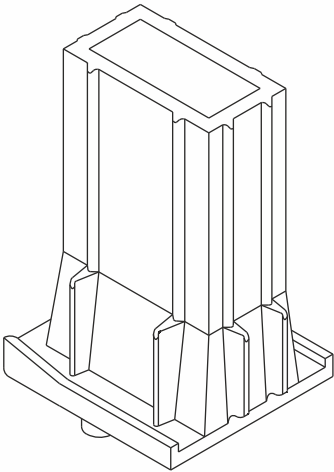


ENERGY WP 5000

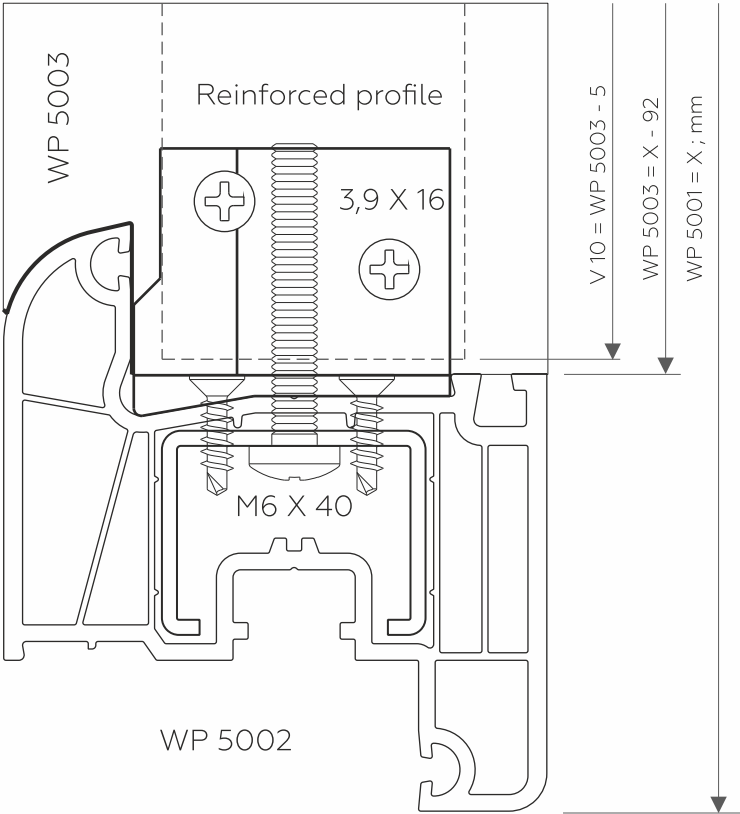
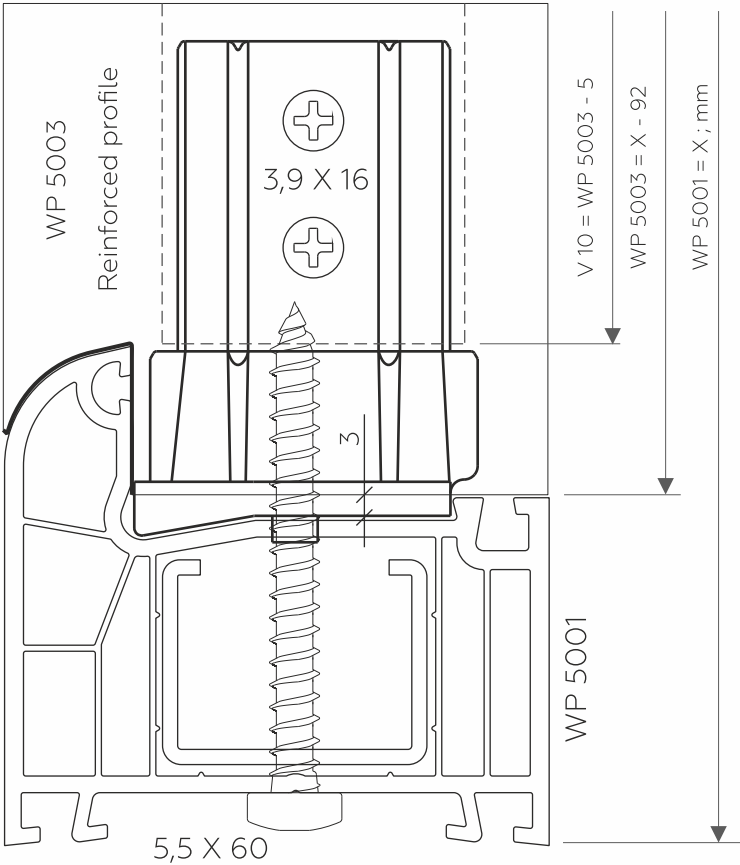
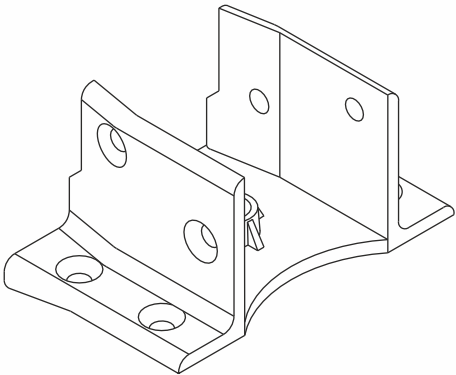
Mullion milling



Plastic joint

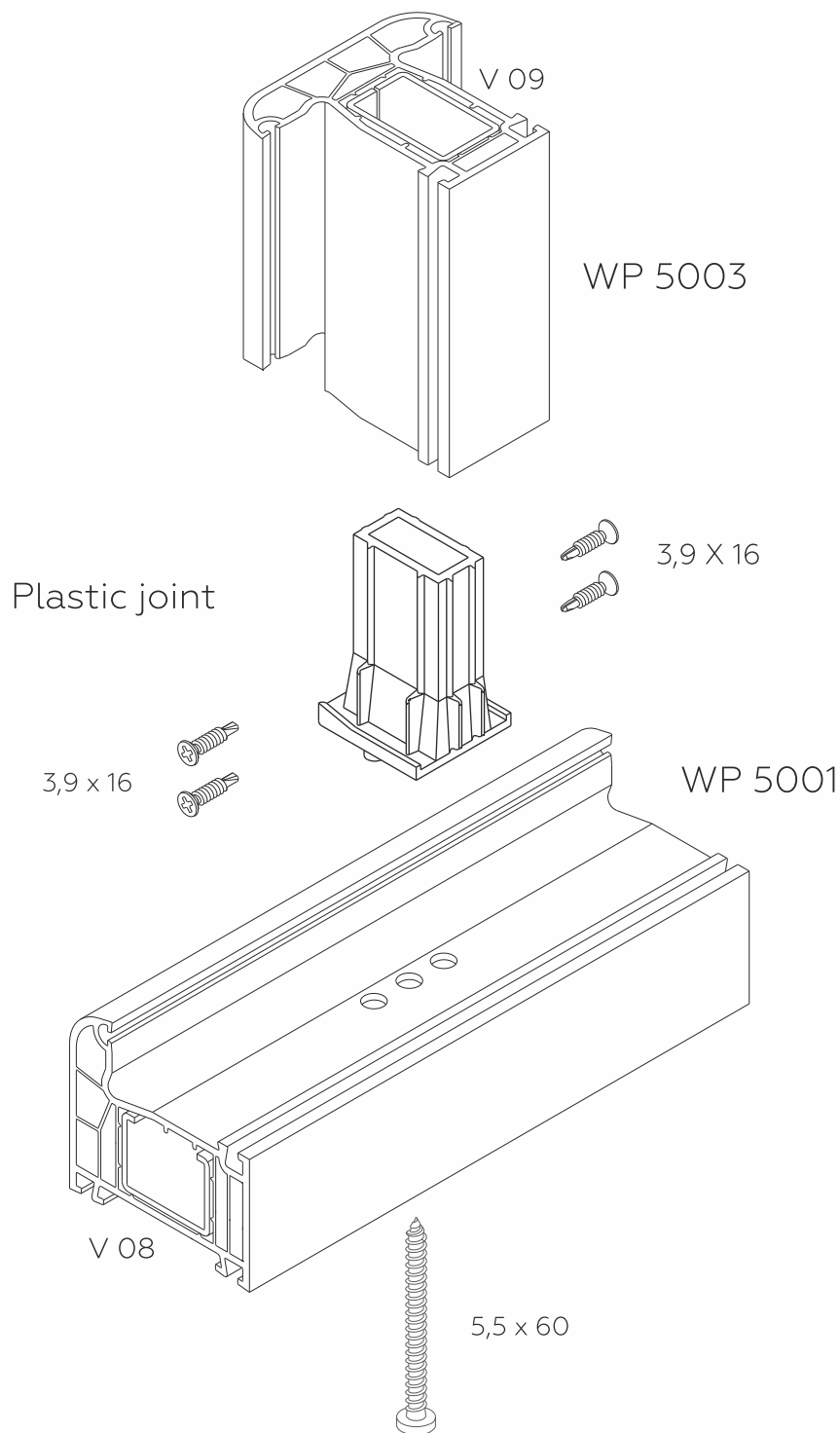


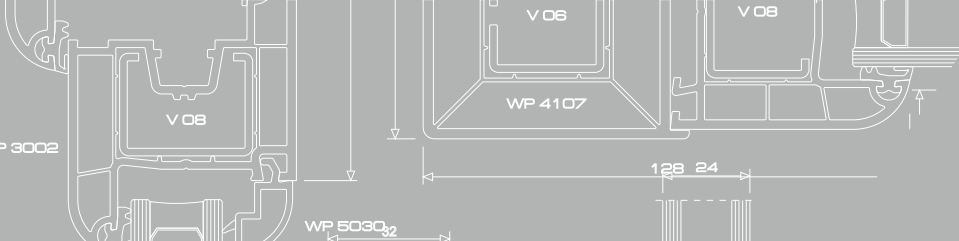
Metal joint



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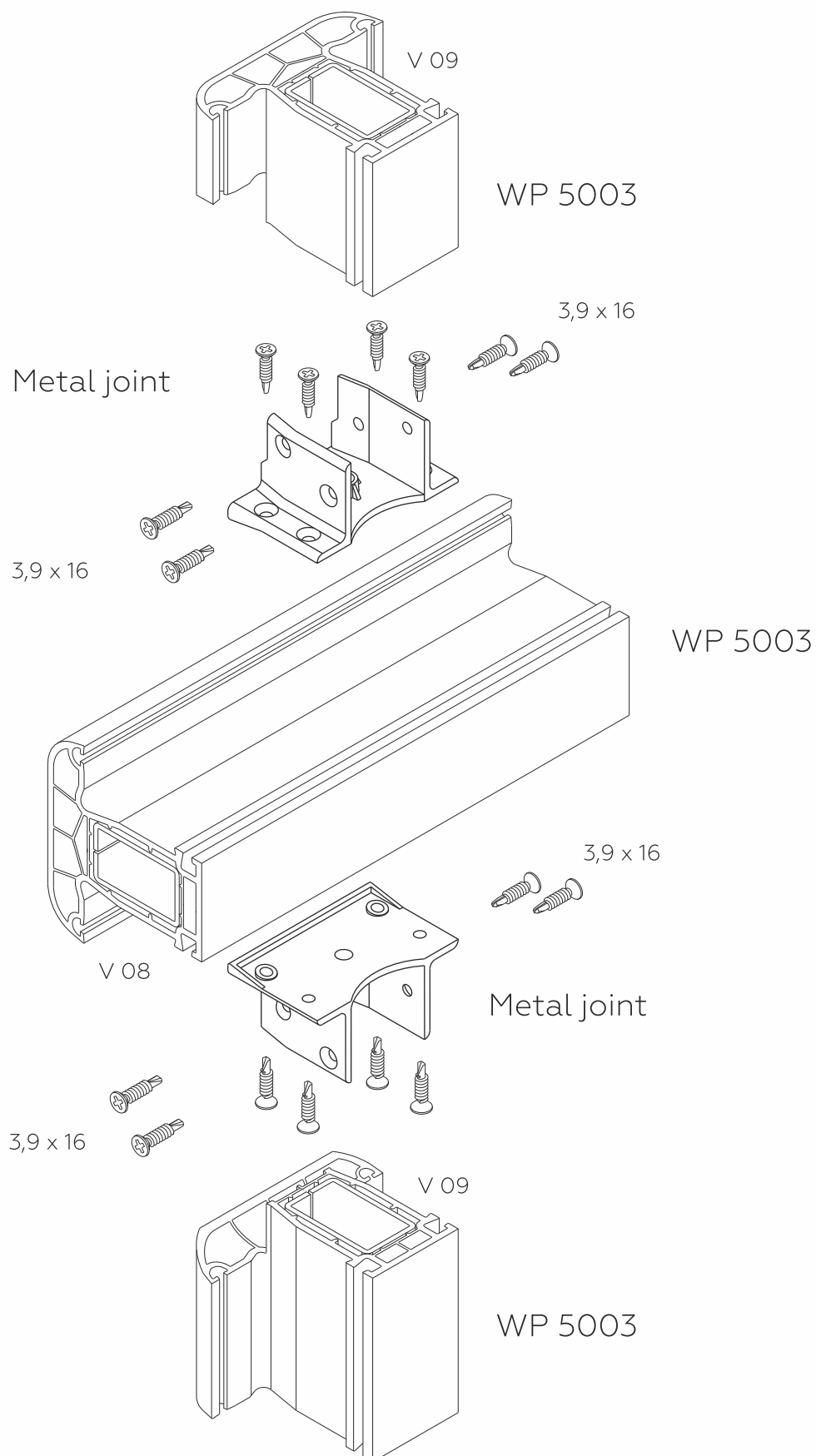
Scheme Mullion - Frame





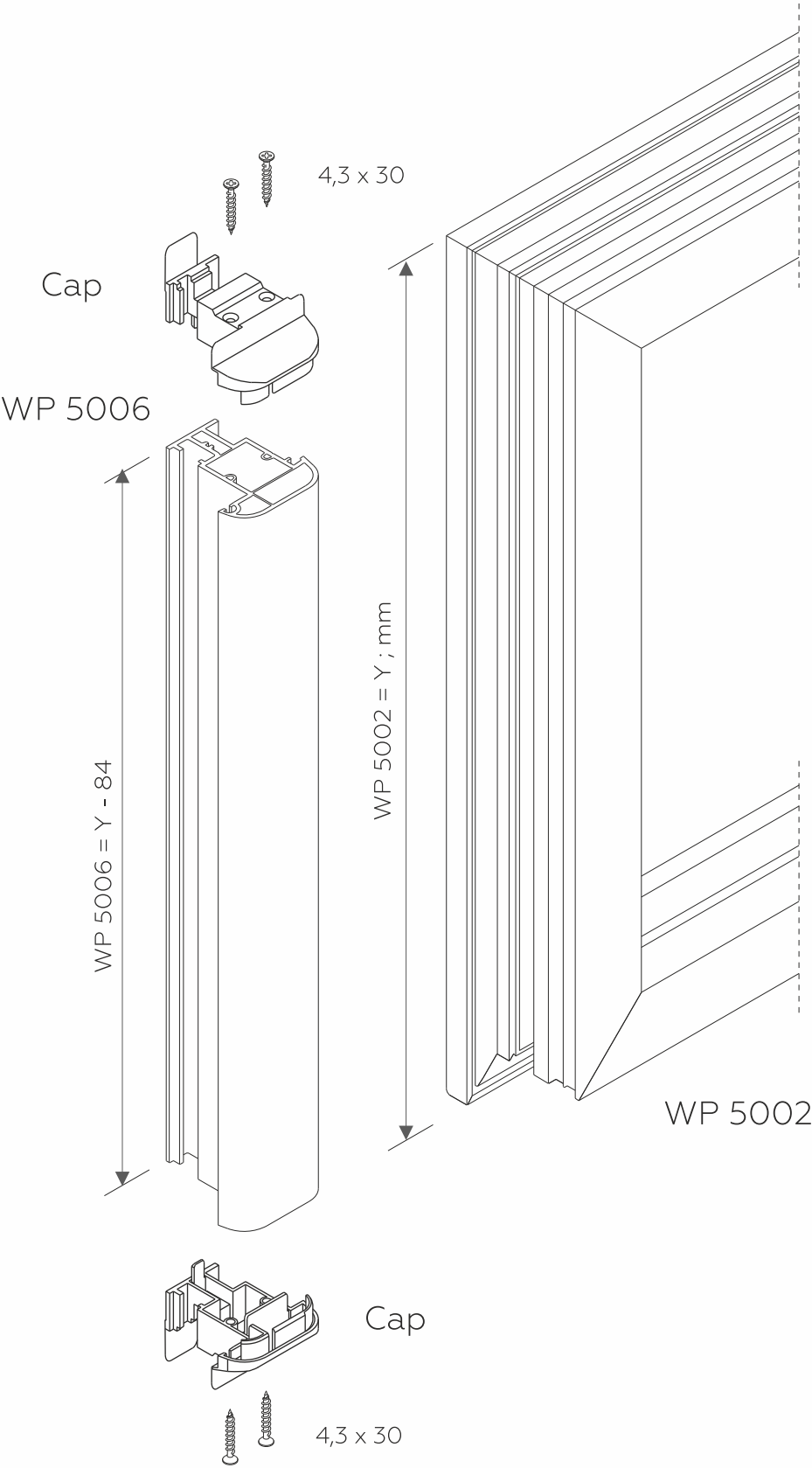
ENERGY WP 5000

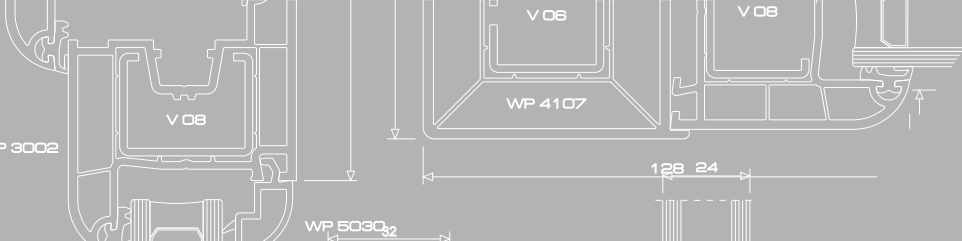
Scheme mullion - mullion



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Scheme Lap joint profile





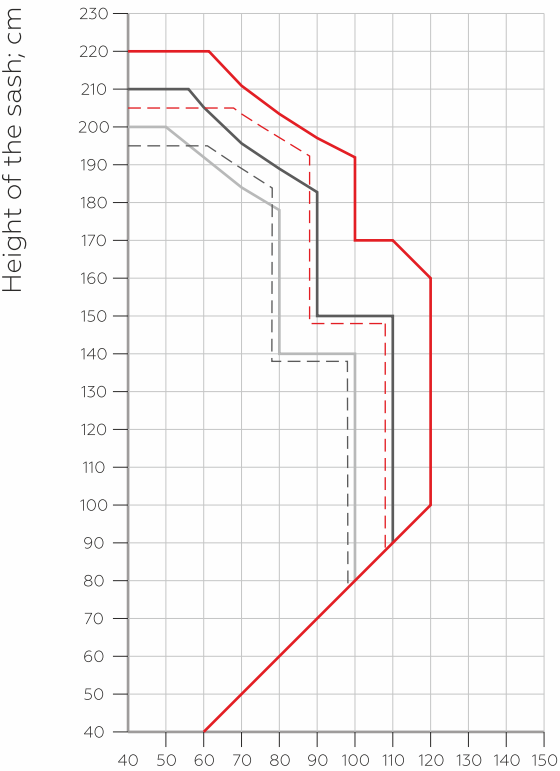
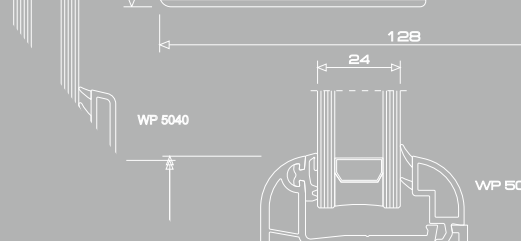
ENERGY WP 5000

Reinforcement profiles

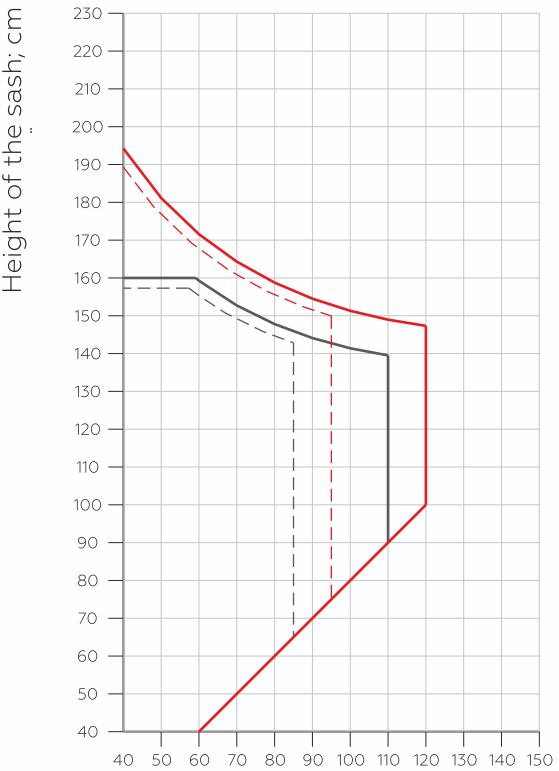
Code	PVC profile	Reinforced profiles	y x Inertia moment	
V 08	WP 5001 WP 5002 WP 5010 WP 5035		d = 15	$I_x = 1,22 \text{ cm}$ $I_y = 2,80 \text{ cm}$
			d = 2	$I_x = 1,71 \text{ cm}$ $I_y = 3,76 \text{ cm}$
V 09	WP 5003		d = 15	$I_x = 1,71 \text{ cm}$ $I_y = 3,76 \text{ cm}$
			d = 2	$I_x = 2,14 \text{ cm}$ $I_y = 4,76 \text{ cm}$
V 13	WP 5004 WP 5005		$I_x = 6,47 \text{ cm}$ $I_y = 9,29 \text{ cm}$	
V 11	WP 5011		$I_x = 1,73 \text{ cm}$ $I_y = 1,73 \text{ cm}$	
V 02	WP 5006		$I_x = 0,67 \text{ cm}$ $I_y = 1,46 \text{ cm}$	
V 06	WP 5007		$I_x = 2,19 \text{ cm}$ $I_y = 2,25 \text{ cm}$	
V 10	WP 5013		$I_x = 4,17 \text{ cm}$ $I_y = 8,35 \text{ cm}$	

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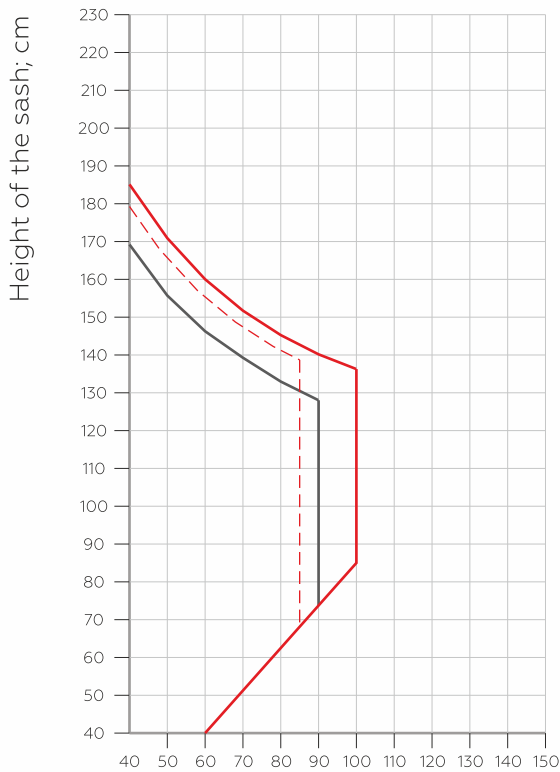
Graphics for finding the maximum size of the sashes



Graphic 2 Width of the sash; cm



Graphic 1 Width of the sash; cm



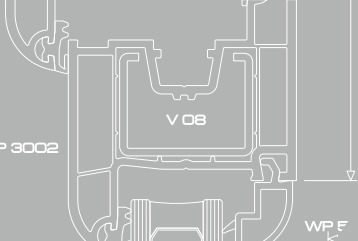
Graphic 3 Width of the sash; cm

- V08 / 2,0 mm / $I_x = 1,51 \text{ cm}^4$; $I_y = 3,53 \text{ cm}^4$
- V08 / 1,5 mm / $I_x = 1,24 \text{ cm}^4$; $I_y = 2,80 \text{ cm}^4$
- V08 / 1,2 mm / $I_x = 1,02 \text{ cm}^4$; $I_y = 2,32 \text{ cm}^4$

Calculating the moment of inertia

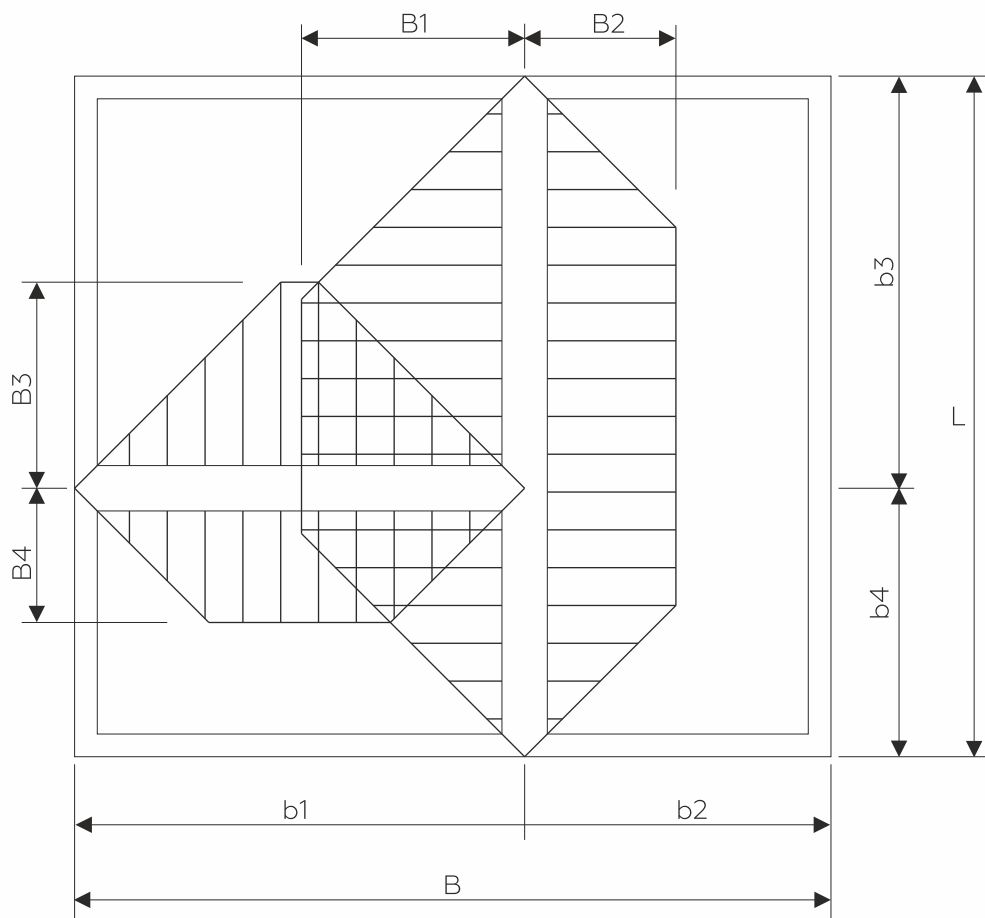
$$I_H = \frac{W \cdot L^4 \cdot B/2}{1920 \cdot E \cdot f} \left[25 - 40 \left(\frac{B}{L} \right)^2 + 16 \left(\frac{B}{L} \right)^4 \right] ; \text{cm}^4$$

The graphics for choosing reinforcement profiles for laminated profiles are with dotted line.



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Calculation of the moment of inertia



$$I_H = \frac{W \cdot L^4 \cdot B/2}{1920 \cdot E \cdot f} \left[25 - 40 \left(\frac{B}{L} \right)^2 + 16 \left(\frac{B}{L} \right)^4 \right]; \text{ cm}^4$$

W- Wind pressure N/mm²

Height of the building 0-8m: W = 600 Pa

W=0,0006 N/mm²

Height of the building 8-20m: W = 960 Pa

W=0,0096 N/mm²

Height of the building 20-100m: **W** = 1320 Pa

W=0,00132 N/mm²

Height of the building 20-100m: **W** = 1320 Pa

W=0,00132 N/mm²

L - Height; cm

B - Width; cm

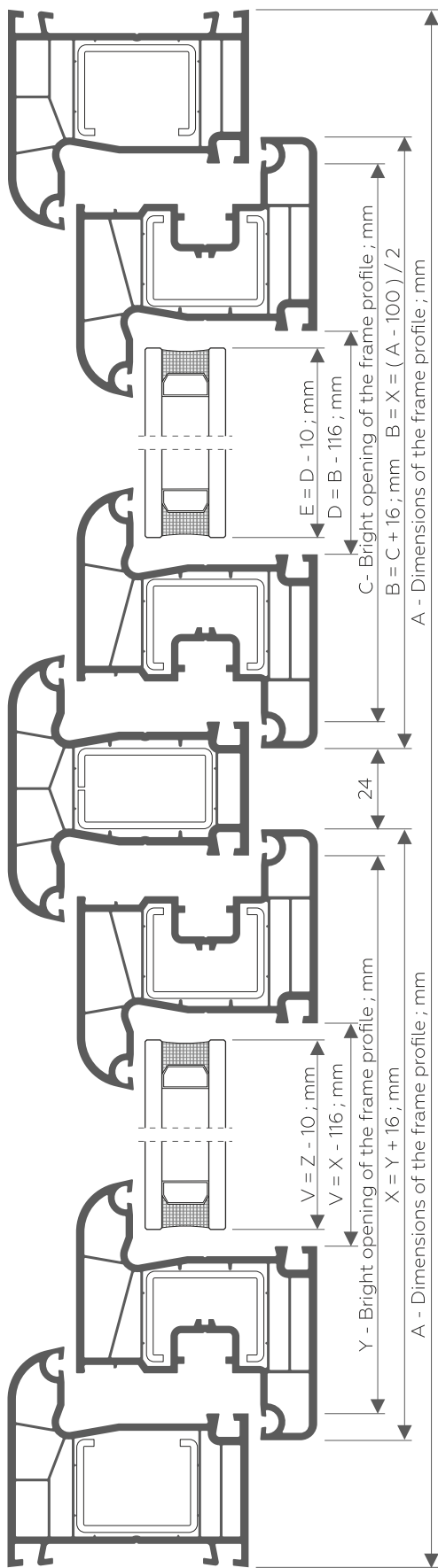
E - Elasticity module

E_{steel}=210 000 N/mm²

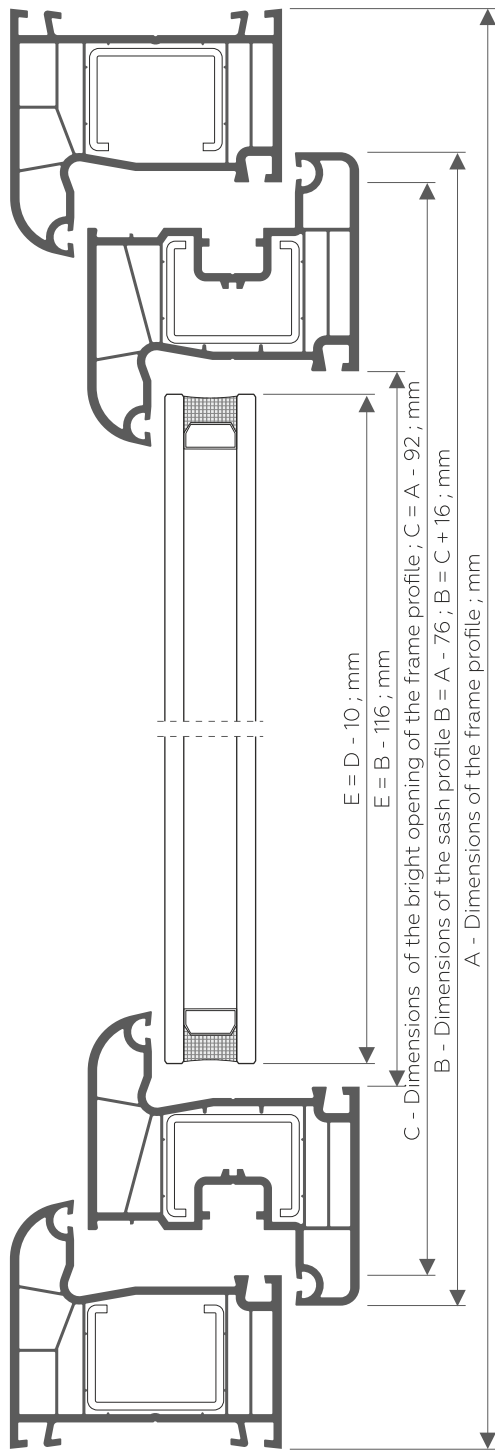
E_{aluminium}=70 000 N/mm²

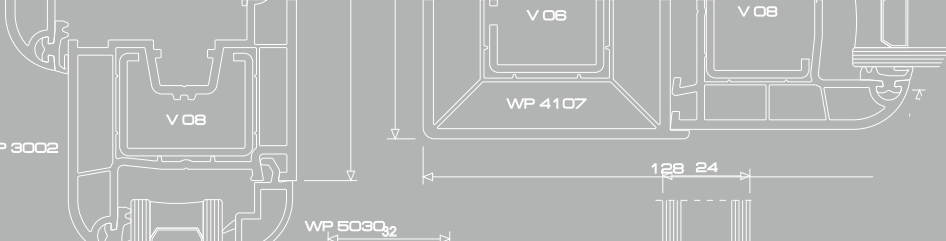
f- Slack eligibility (f=L/300; f<0,8 cm)

Double opening window with mullion

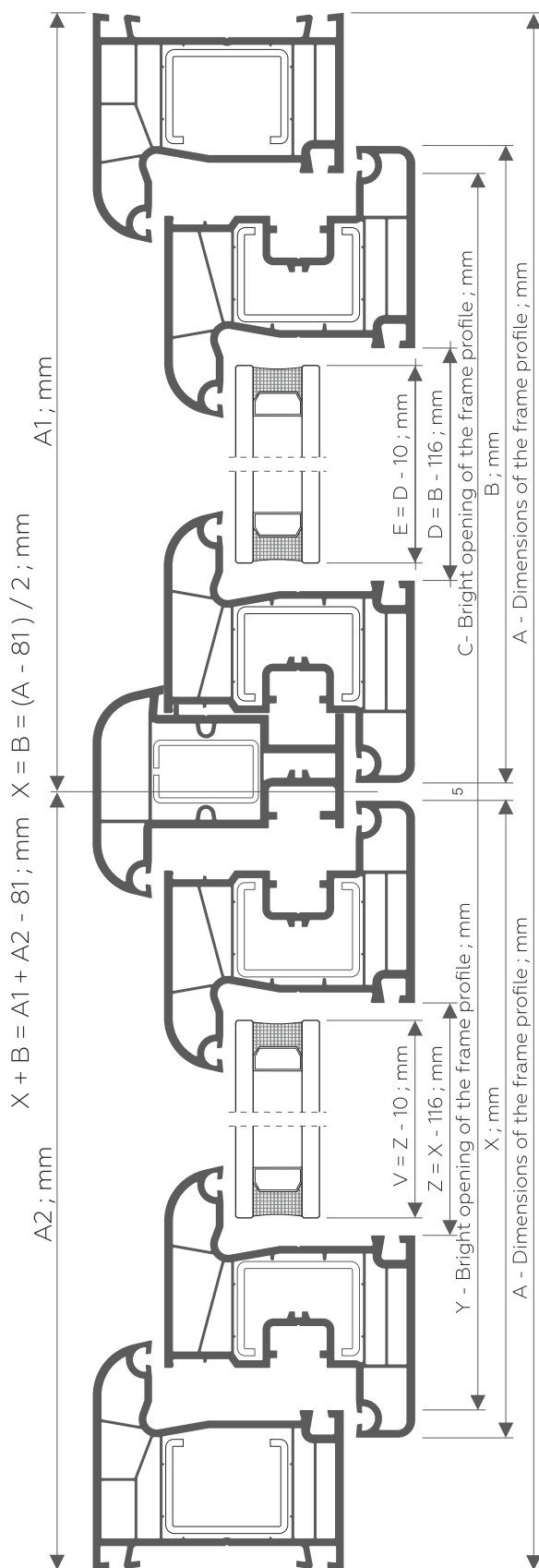


A single opening window

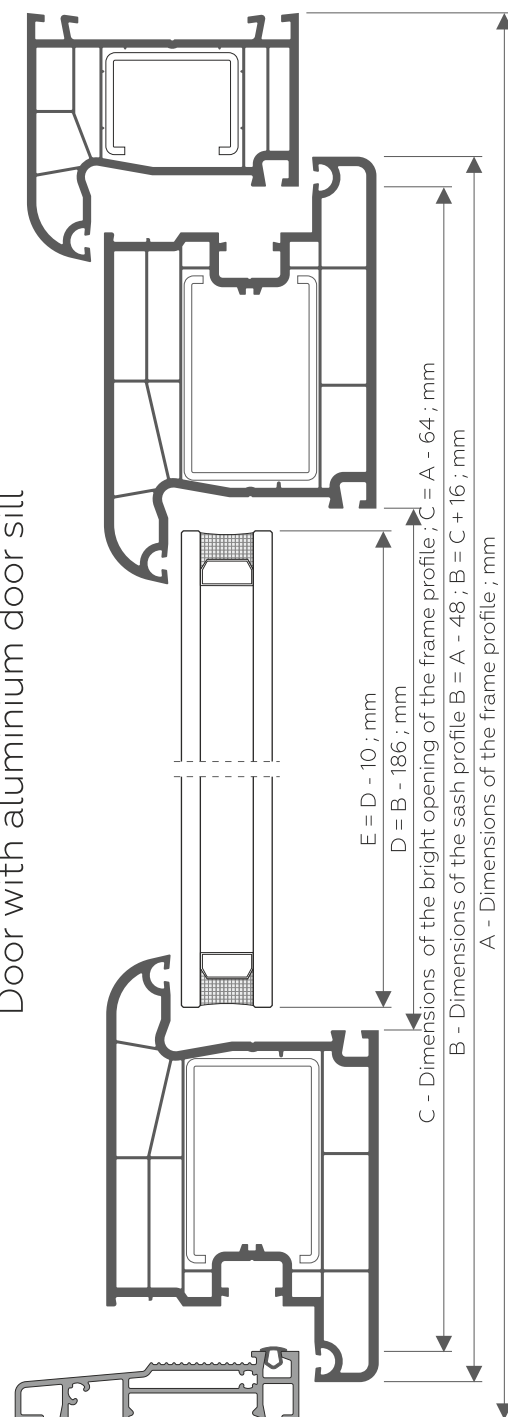




Double opening window with a lap joint profile

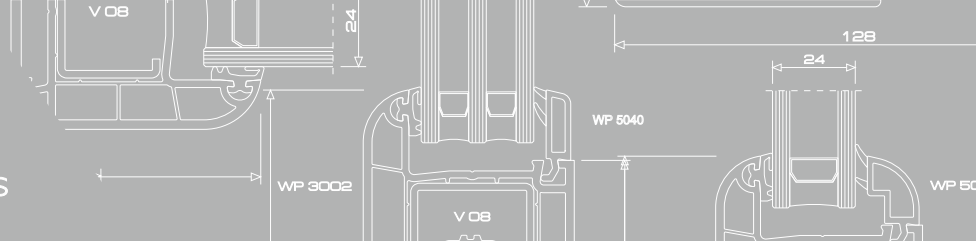


Door with aluminium door sill



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Profiles with laminate and arcs



Light walnut



Dark walnut



Cherry



Golden oak



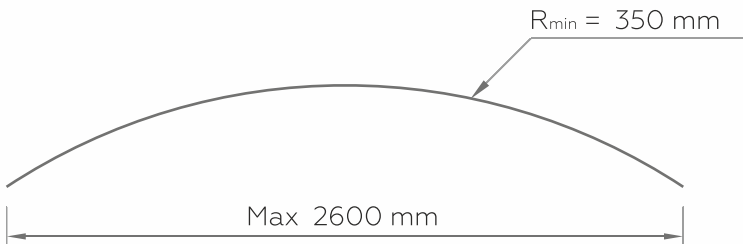
Dark oak



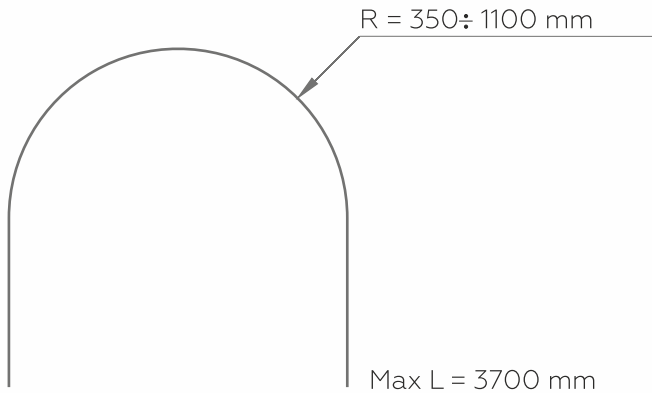
Mahogany



Arcs:
Minimum radios of the arc: 350mm.
Maximum radios: 2860mm.
Maximum length of the chord: 2000 mm.



Semicircles:
Minimum radios of the semicircle: 350mm.
Maximum radios: 880mm.
Maximum length of the curve together with the two verticals: 3700 mm.



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