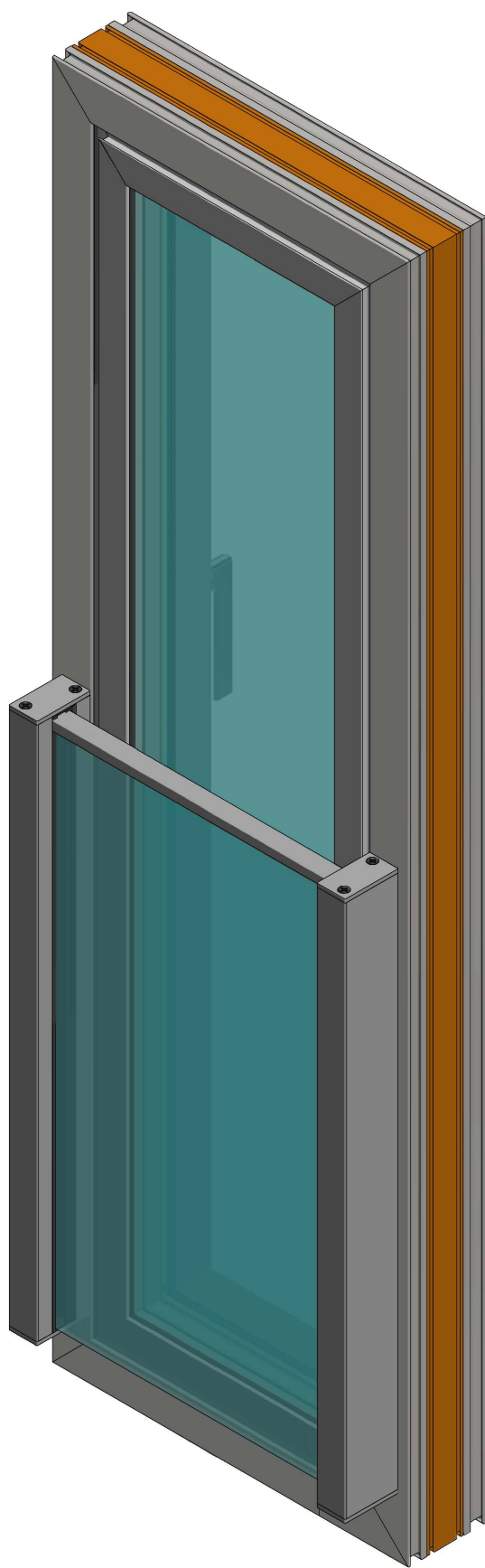


Balustrade

New elements

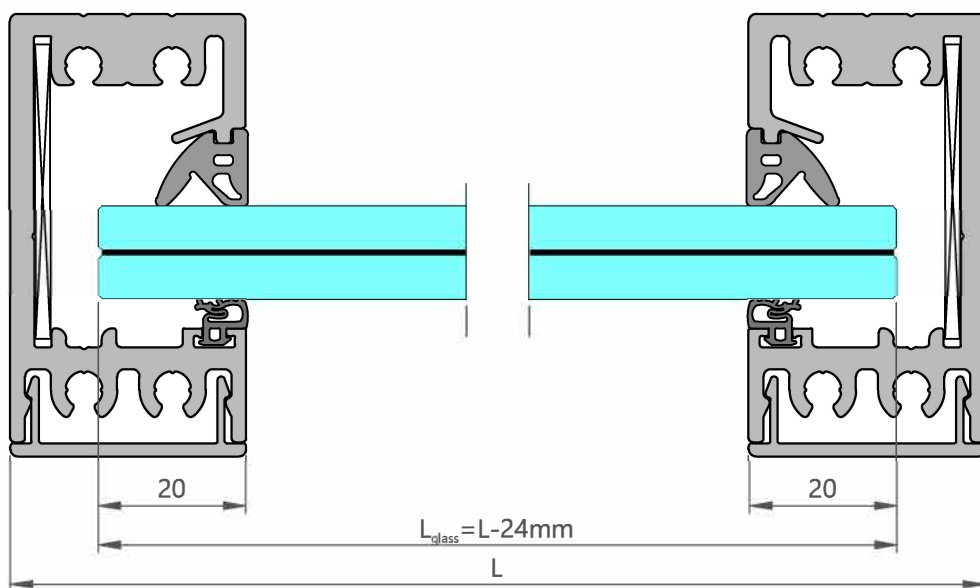


Laboratory test carried out at the Laboratory of Construction Technology in Poland

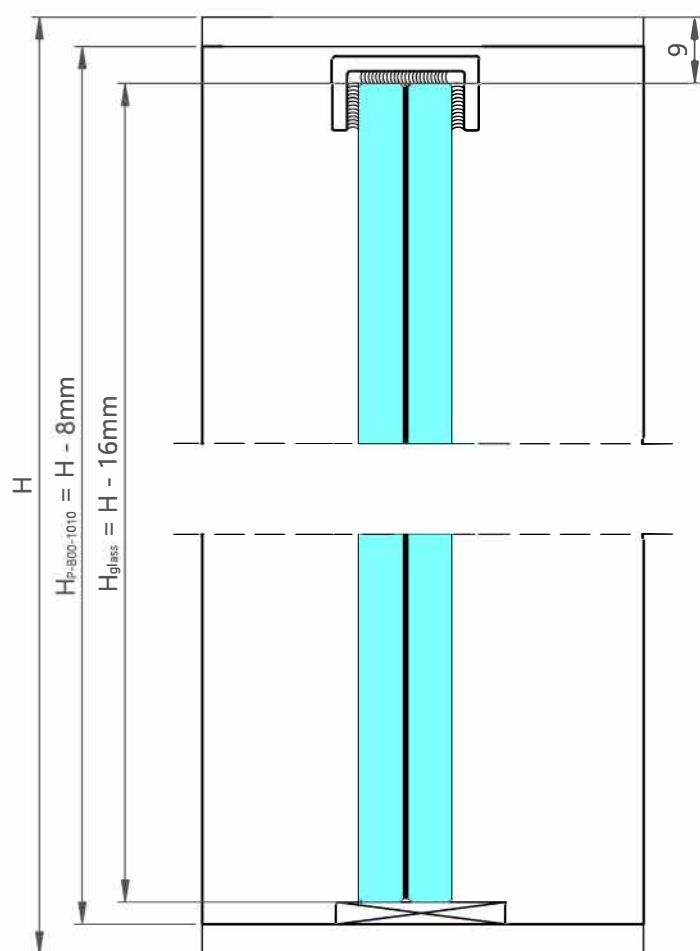


Balustrade mounted on the PVC window			
Dimensions max 2074mm x 1265mm			
Dimensions min 524mm x 515mm			
ESG VSG 66.2 glass			
No	Properties	Test method	Functional property
1	Resistance to static loads - horizontal force perpendicular to the balustrade plane 0,5kN/m	PB LK-140/1/04-2013, PB LZE-140/2/04-2019	Met for 0,5kN/m
2	Resistance to static loads - vertical force in the balustrade plane 1kN	PB LK-140/1/04-2013, PB LZE-140/2/04-2019	Met for 1kN
3	0,5 kg hard body impact resistance	PB LK-140/1/04-2013, PB LZE-140/2/04-2019	Met for 5J
4	Resistance to soft and heavy body impact weighing 50kg	PN-EN 13049:2004, PB LZE-140/2/04-2019	950 mm
5	Wind load resistance	PN-EN 12444:2002, PB LZE-140/2/04-2019	1190 Pa
6	Resistance to soft and heavy body impact weighing 50kg	PN-EN 13049:2004, PB LZE-140/2/04-2019	700mm

Balustrade mounted on the aluminium window			
Dimensions max 2074mm x 1265mm			
Dimensions min 524mm x 515mm			
ESG VSG 66.2 glass			
No	Properties	Test method	Functional property
1	Resistance to static loads - horizontal force perpendicular to the balustrade plane 1kN/m	PB LK-140/1/04-2013, PB LZE-140/2/04-2019	Met for 1kN/m
2	Resistance to static loads - vertical force in the balustrade plane 1kN	PB LK-140/1/04-2013, PB LZE-140/2/04-2019	Met for 1kN
3	0,5 kg hard body impact resistance	PB LK-140/1/04-2013, PB LZE-140/2/04-2019	Met for 5J
4	Resistance to soft and heavy body impact weighing 50kg	PN-EN 13049:2004, PB LZE-140/2/04-2019	950 mm
5	Wind load resistance	PN-EN 12444:2002, PB LZE-140/2/04-2019	1260 Pa
6	Resistance to soft and heavy body impact weighing 50kg	PN-EN 13049:2004, PB LZE-140/2/04-2019	700mm



Max glass dimension Max wymiary szyb		
H_{glass}		
ESG VSG 66.2		
ESG VSG 66.4		
ESG VSG 88.2		
ESG VSG 88.4		
	min.	max.
L	500mm	2050mm
H	500mm	1250mm



TECHNICAL DESCRIPTION

The Decalu balustrade system includes 'portfenetre' railings for installation directly on window profiles. "Portfenetr" balustrades protect against falling out if the window sill is too short. They can be mounted to aluminum windows with a minimum 1.6 mm thick mounting wall (in the screw mounting axis) or to PVC windows on profiles with a minimum B class with steel reinforcement with a minimum 1.5 mm wall thickness. They can be used in facilities of utilization category A, B, C1 ÷ C4 according to PN-EN 1991-1-1, i.e. flats, office rooms, public utility rooms. The maximum wind load for the largest permissible glass dimensions is 1.26kN / m².

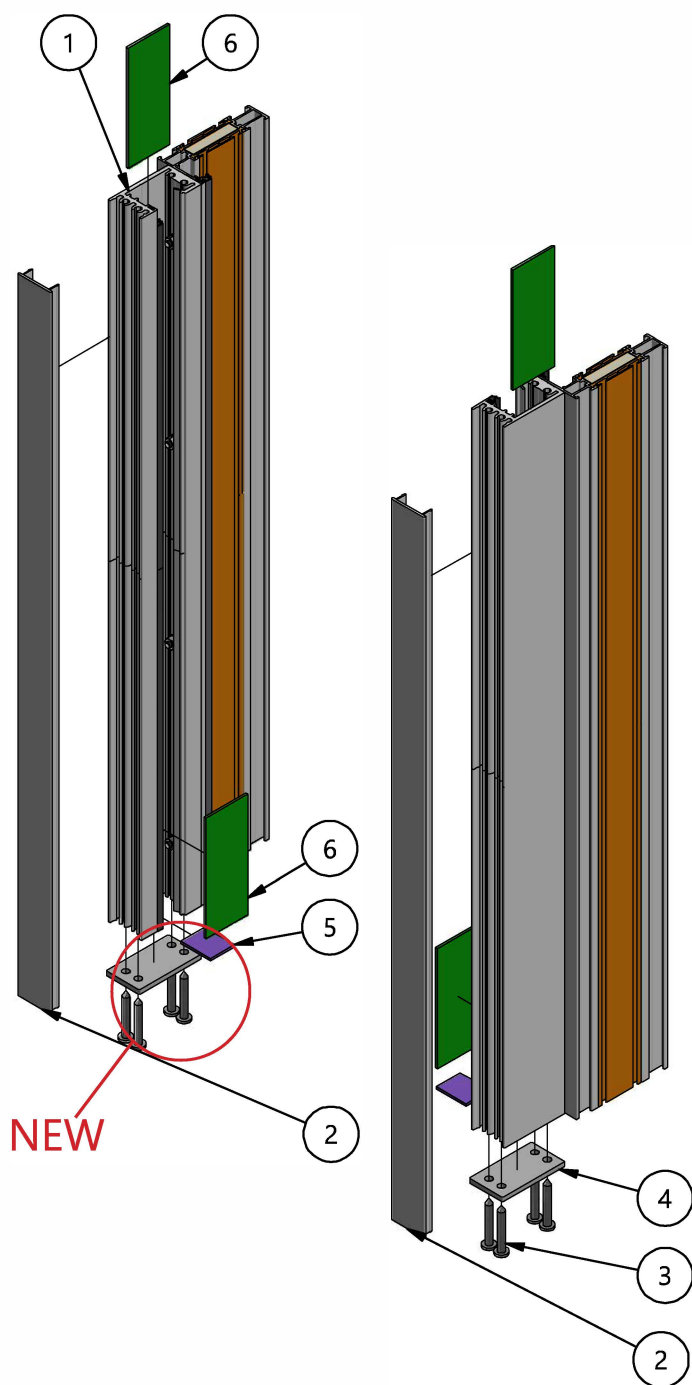
The system consists mainly of profiles P-B00-1010 bolted with an aluminum window profile using M5 stainless steel screws or bolted with a PVC window profile using galvanized steel screws with a diameter of 5.5mm and a minimum length of 60mm. To cover the mounting holes in the main profiles, an aluminum latch P-B00-1011 is used. The lower end caps of the main profiles A-B00-1132 also support the glass and are attached to the profiles with four A2 stainless steel screws A-WG-H5538. A-B00-1141 glazing washers made of hard PVC are glued on end caps A-B00-1132.

A-PS-402 PVC washers are inserted into the side chambers of the P-B00-1010 profile to protect the glass against breaking. The glass panes are mounted linearly along the vertical edges through the outer gaskets A-GS-2000R and internal A-GS-2020 (for ESG 88.2 or ESG 88.4 panes) or A-GS-2021 (for ESG 66.2 or ESG 66.4 panes). Gaskets are made of EPDM. From the top, the main profiles are closed with plugs A-B00-1133L and A-B00-1133P mounted on two A2 stainless steel screws A-WS-H5538. A-B00-1141 glazing washers made of hard PVC are glued on end caps A-B00-1133L and A-B00-1133P. The top cap also protects the glass from being removed from the top. The glass on the upper edge is protected against breaking with an aluminum handrail P-B00-1015 (for ESG 66.2 or ESG 66.4 glass) or P-B00-1016 (for ESG 88.2 or ESG 88.4 glass). The handrail is glued to the glass using glue A-B00-9920, the application should be carried out on clean degreased surfaces at a temperature from + 5 ° C to + 35 ° C.

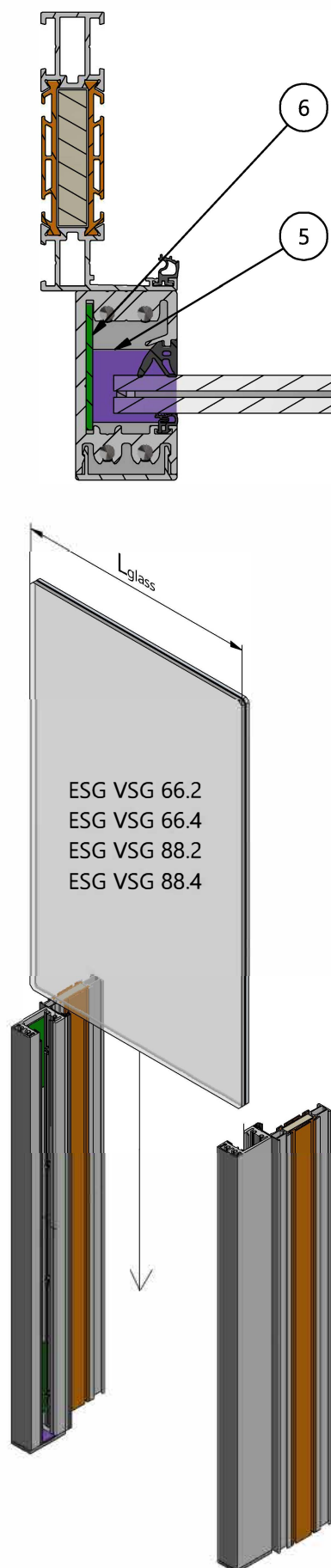
Aluminum profiles are pressed from aluminum alloy EN AW-6060 according to PN-EN 573-3, condition T66 according to PN-EN 515 and meet the requirements specified in PN-EN 755-1, their mechanical properties are consistent with PN-EN 755- 2. Dimensional deviations of profiles according to PN-EN 12020-2.

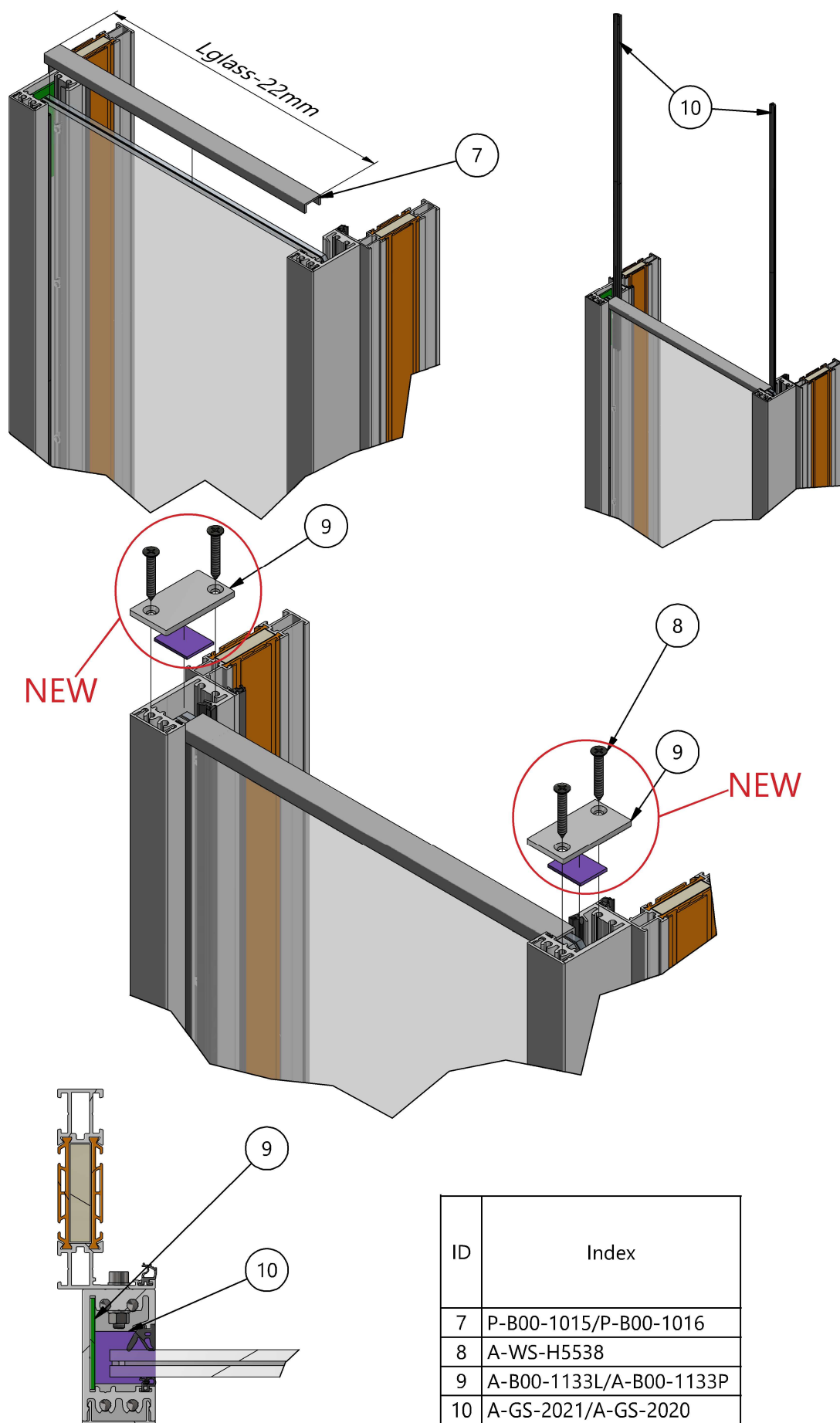
The surfaces of aluminum profiles and plugs are protected against corrosion by powder coating or anodic oxide coatings.

Name of the element	Catalog number	Material
Profiles		
Railing post	P-B00-1010	aluminum
Balustrade post cover	P-B00-1011	aluminum
The upper profile covering the glass 6.6.2	P-B00-1015	aluminum
Upper profile covering the glass 8.8.2	P-B00-1016	aluminum
Accessories		
Bottom cover of the railing profile	A-B00-1132	aluminum
Upper end cap, left, balustrade profile	A-B00-1133L	aluminum
Upper end cap, right, railing profile	A-B00-1133P	aluminum
Outer glazing gasket	A-GS-2000R	EPDM
3.5-6mm internal glazing gasket	A-GS-2020	EPDM
7.5-10mm internal glazing gasket	A-GS-2021	EPDM
Glazing washer 3x23x27mm	A-B00-1141	PVC + adhesive tape
DIN 985 M5 self-locking nut	A-NH-005	Steel A2
Enlarged round washer DIN 9021 M5	A-DO-005	Steel A2
Screw DIN 912 M5x20	A-BW-I0520	Steel A2
Screw for bottom plugs DIN 7981 5.5x38	A-WG-H5538	Steel A2
Screw for top plugs DIN 7982 5.5x38	A-WS-H5538	Steel A2
Screw DIN 7981 5.5x60	A-WG-H5560G	Galvanized steel
Montage glue	A-B00-9920	Soudal T-REX hybrid assembly adhesive KLE / REX / GD / 2018

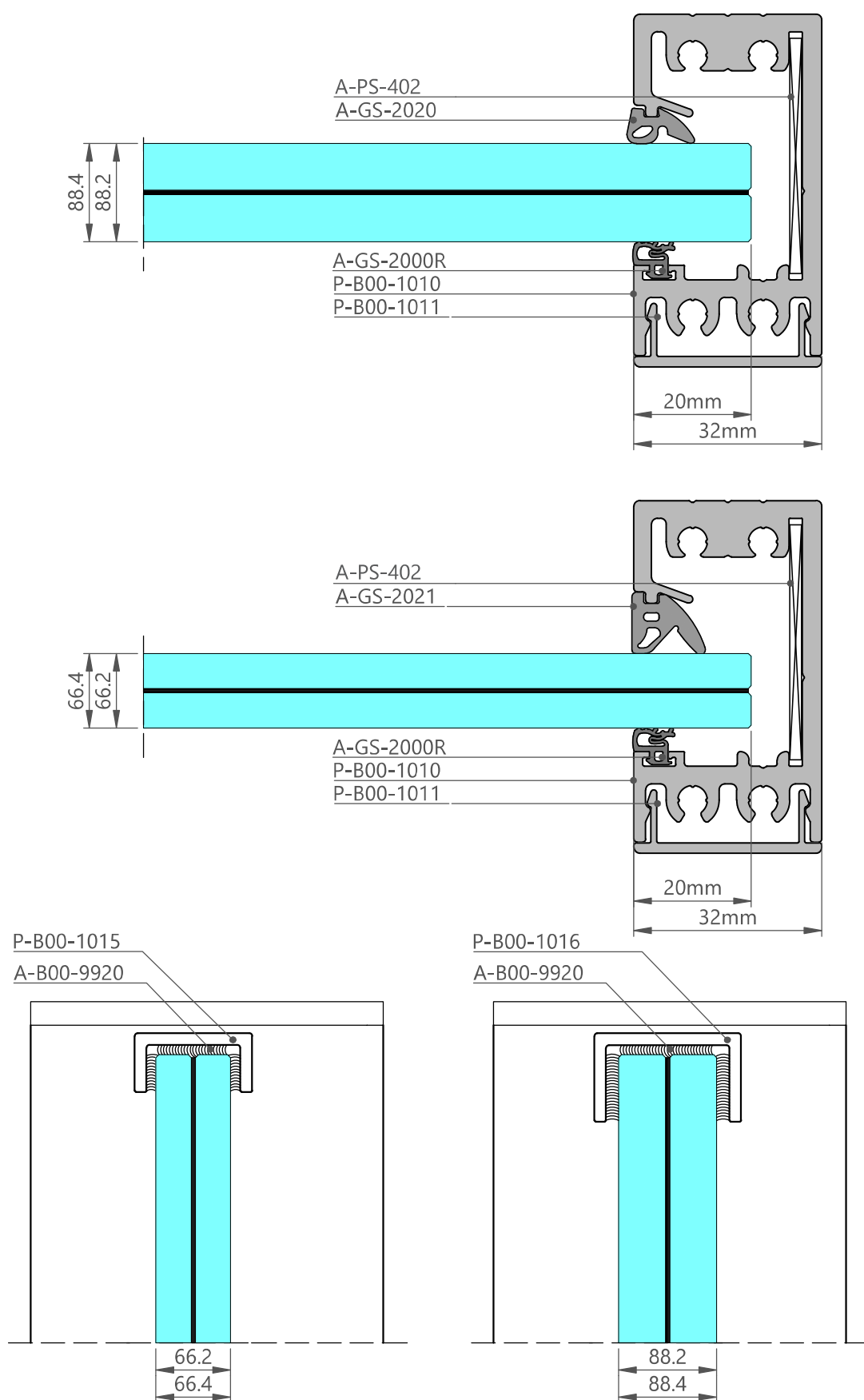


ID	Index
1	P-B00-1010
2	P-B00-1011
3	A-WG-H5538
4	A-B00-1132
5	A-B00-1141
6	A-PS-402





ID	Index
7	P-B00-1015/P-B00-1016
8	A-WS-H5538
9	A-B00-1133L/A-B00-1133P
10	A-GS-2021/A-GS-2020



A diagram showing a square with a dashed triangle inside. The triangle's vertices are at the top-left, top-right, and bottom-right corners of the square. A vertical line segment is drawn from the top-right vertex to the bottom edge of the square. A horizontal line segment is drawn from the top-left vertex to the right edge of the square. These two segments intersect at a point inside the square. The diagram is used to illustrate a geometric proof.



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Newsletter no.2 / 2020

Vertical section of the balustrade on the window of Decalu 88 Standard

