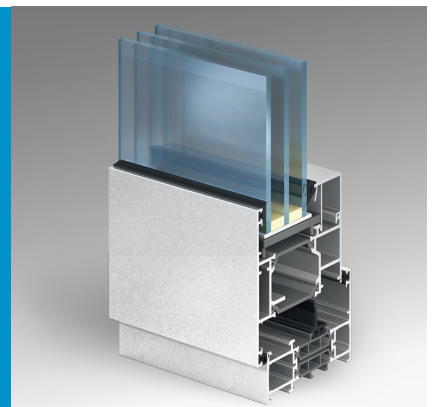




Profile systems

ALUTECH ALT W72 CW

Window system
with thermal break





ALUTECH ALTW72 CW

Window system
with thermal break

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System description	01
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ALUTECH ALTW72 CW

Window system
with thermal break

System description

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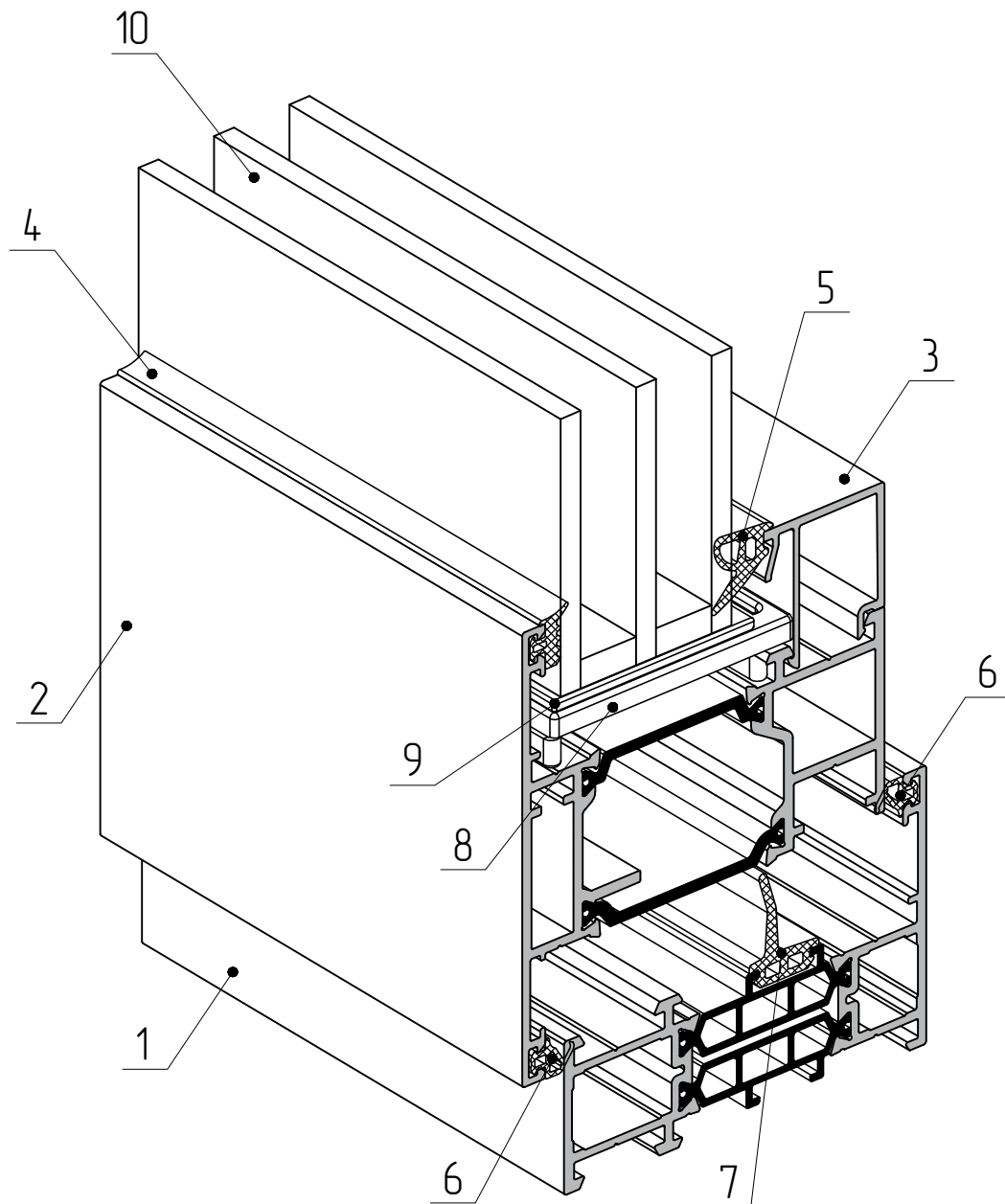
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Casement window chart



- 1 - AYPC.W72.0101E frame profile
- 2 - AYPC.W72.0240NE sash profile
- 3 - AYPC.C48.0606 glass bead profile
- 4 - FRK29-01 rubber gasket
- 5 - FRK67 rubber gasket
- 6 - FRK198 rubber gasket
- 7 - FRK190 rubber gasket
- 8 - AYPC.W72.0901 bearing support
- 9 - 100x44x3 leveling support
- 10 - 34mm glazing



ALUTECH ALTW72 CW

Window system
with thermal break

Data for the order

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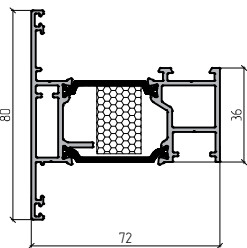
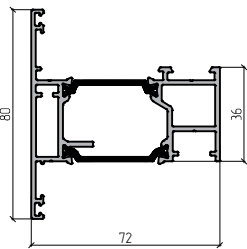
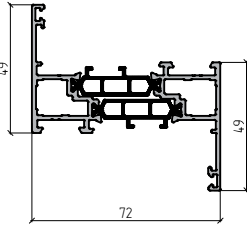
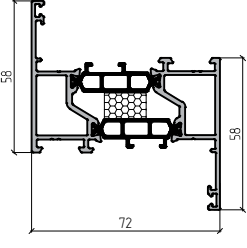
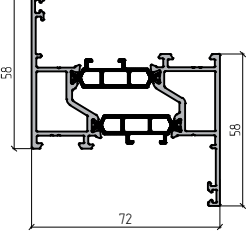

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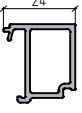


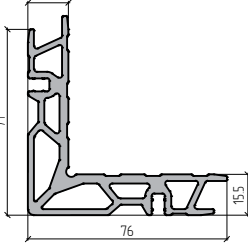
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Article	Name Drawing	Weight, kg/rm	Exterior perimeter, mm	Cross sectional area, mm ²	Code	Profile colour	Bar length, rm	Packing quantity		Weight of a pack	
								pcs	rm	Net, kg	Gross, kg
AYPC.W72.0240E		1.74	418.80	699.8000	10922321 10922324 10922330 10922331 109223808	RAL9016 RAL8014 RAL8017 RAL9006 A00-D6	6.5	2	13	22.6 22.6 22.6 22.6 21.8	22.9 22.9 22.9 22.9 22.1
AYPC.W72.0240NE	Sash profile 	1.68	418.80	699.80	10922400 10922421 10922424 10922430 10922431 109224808	00 RAL9016 RAL8014 RAL8017 RAL9006 A00-D6	6.5	2	13	21.8 22.6 22.6 22.6 22.6 21.8	22.1 22.9 22.9 22.9 22.9 22.1
AYPC.W72.0339E	Transom bar profile 	1.53	438.90	665.20	10922900 10922921 10922924 10922930 10922931 109229808	00 RAL9016 RAL8014 RAL8017 RAL9006 A00-D6	6.5	2	13	19.8 20.7 20.7 20.7 20.7 19.8	20 21 21 21 21 20
AYPC.W72.0340E	Transom bar profile 	1.71	456.90	736.00	10923421 10923424 10923430 10923431 109234808	RAL9016 RAL8014 RAL8017 RAL9006 A00-D6	6.5	2	13	23.1 23.1 23.1 23.1 22.2	23.4 23.4 23.4 23.4 25.5
AYPC.W72.0340NE	Transom bar profile 	1.71	456.90	736.00	10923500 10923521 10923524 10923530 10923531 109235808	00 RAL9016 RAL8014 RAL8017 RAL9006 A00-D6	6.5	2	13	22.2 23.1 23.1 23.1 23.1 22.2	22.5 23.4 23.4 23.4 23.4 25.5
AYPC.C48.2605	Glass bead profile 	0.38	97.00	140.10	10407600 10407621 10407624 10407630 10407631 104076808	00 RAL9016 RAL8014 RAL8017 RAL9006 A00-D6	6.5	12	78	26.9 30.2 30.2 30.2 30.2 26.9	27.4 30.7 30.7 30.7 30.7 27.4

DATA FOR THE ORDER

Article	Name Drawing	Weight, kg/rm	Exterior perimeter, mm	Cross sectional area, mm ²	Code	Profile colour	Bar length, rm	Packing quantity		Weight of a pack	
								pcs	rm	Net, kg	Gross, kg
AYPC.C48.2606	Glass bead profile 	0.403	112.00	149.10	10407700	00	6.5	12	78	29.4	29.9
					10407721	RAL9016				31.3	31.8
					10407724	RAL8014				31.3	31.8
					10407730	RAL8017				31.3	31.8
					10407731	RAL9006				31.3	31.8
					104077808	A00-D6				29.4	29.9
AYPC.C48.2607	Glass bead profile 	0.428	108.00	158.60	10407800	00	6.5	18	117	32.5	33.2
					10407821	RAL9016				34.4	35.1
					10407824	RAL8014				34.4	35.1
					10407830	RAL8017				34.4	35.1
					10407831	RAL9006				34.4	35.1
					104078808	A00-D6				32.5	33.2
AYPC.C48.2608	Glass bead profile 	0.458	114	169.7	10407900	00	6.5	18	117	32.6	33.3
					10407921	RAL9016				34.2	34.9
					10407924	RAL8014				34.2	34.9
					10407930	RAL8017				34.2	34.9
					10407931	RAL9006				34.2	34.9
					104079808	A00-D6				32.6	33.3
AYPC.C48.0709	Corner crimping profile 	2.570	365	950.7	10408000	00	6.5	2	13	33.4	34.1



ALUTECH ALTW72 CW

Window system
with thermal break

Accessories

01

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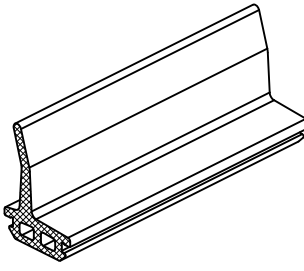
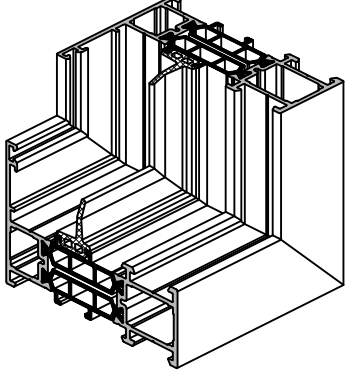
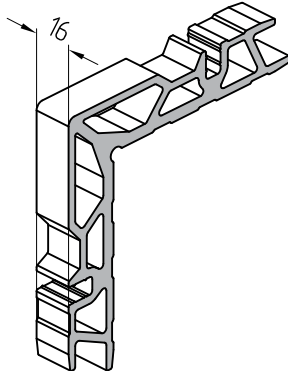
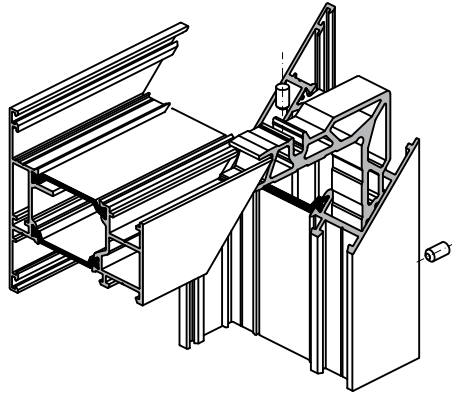
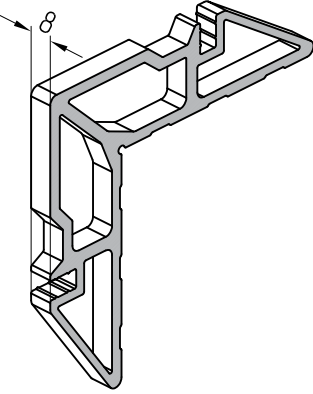
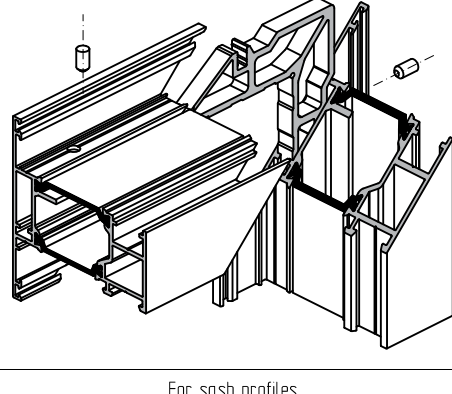
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Image	Code	Article	Application
	1094.0200	FRK190	 <p>Rubber gasket. Packing quantity - 300 m</p>
	10827200	AYPC.W62.0969	<p>Clamping corner made from AYPC.C48.0709 profile. Packing quantity - 35 pcs.</p>  <p>For sash profiles</p> <p>AYPC.W72.0240E, AYPC.W72.0240NE</p>
	10827300	AYPC.W62.0953-05	<p>Clamping corner made from AYPC.C48.0703 profile. Packing quantity - 144 pcs.</p>  <p>For sash profiles</p> <p>AYPC.W72.0240E, AYPC.W72.0240NE</p>



ALUTECH ALTW72 CW

Window system
with thermal break

Bearing support installation diagram

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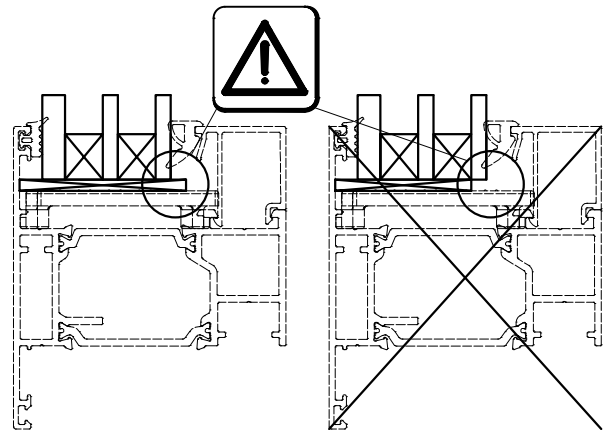
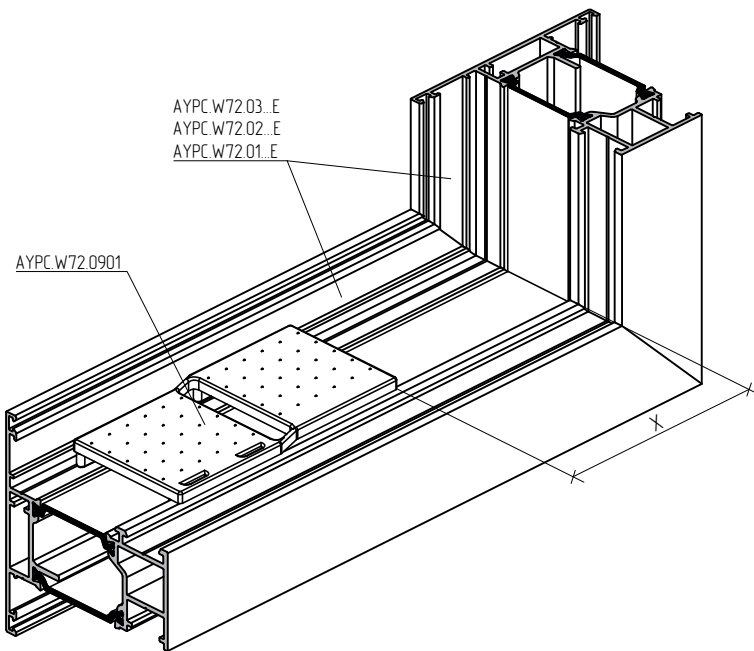
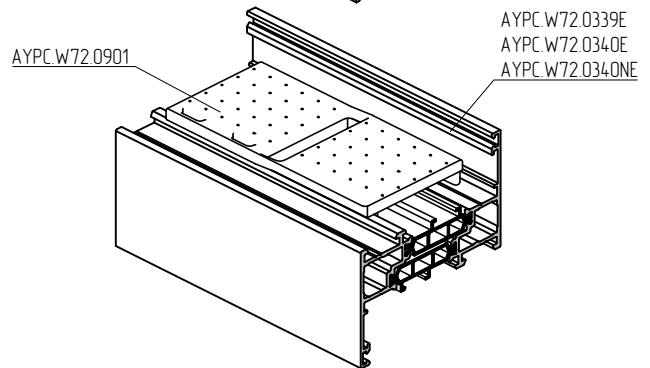
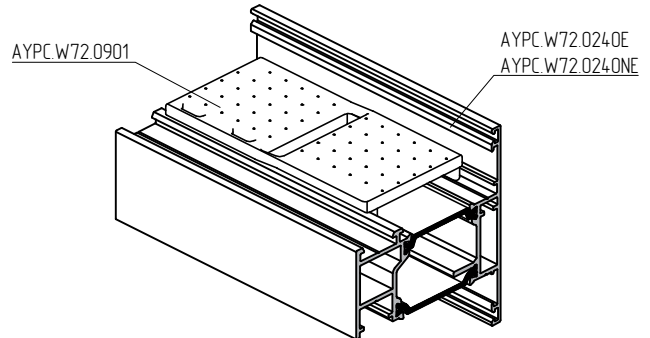
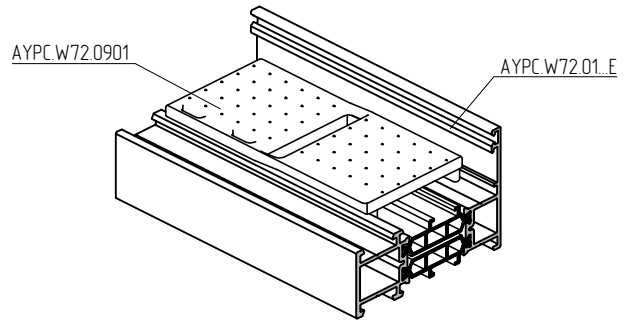
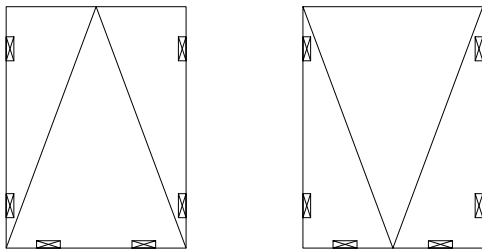
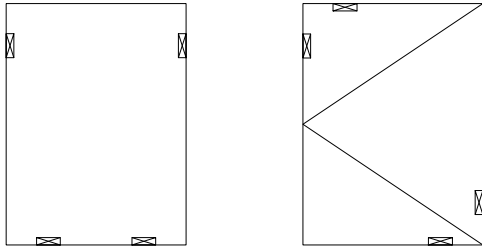
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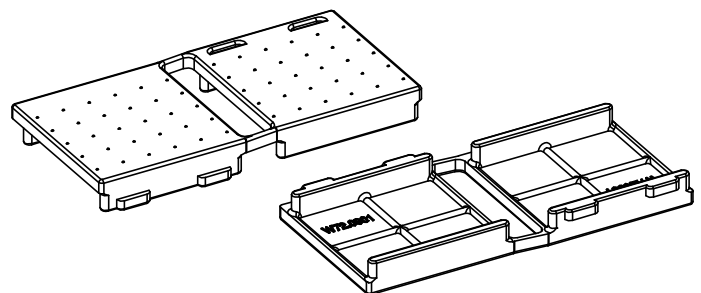
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Bearing support installation scheme



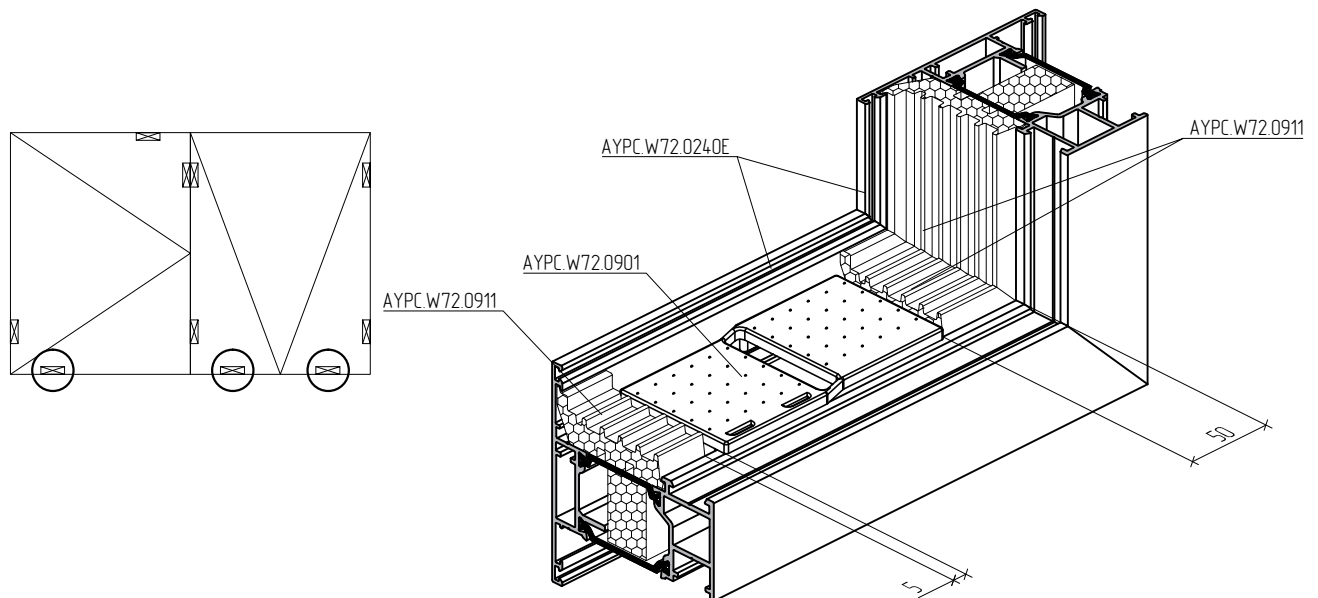
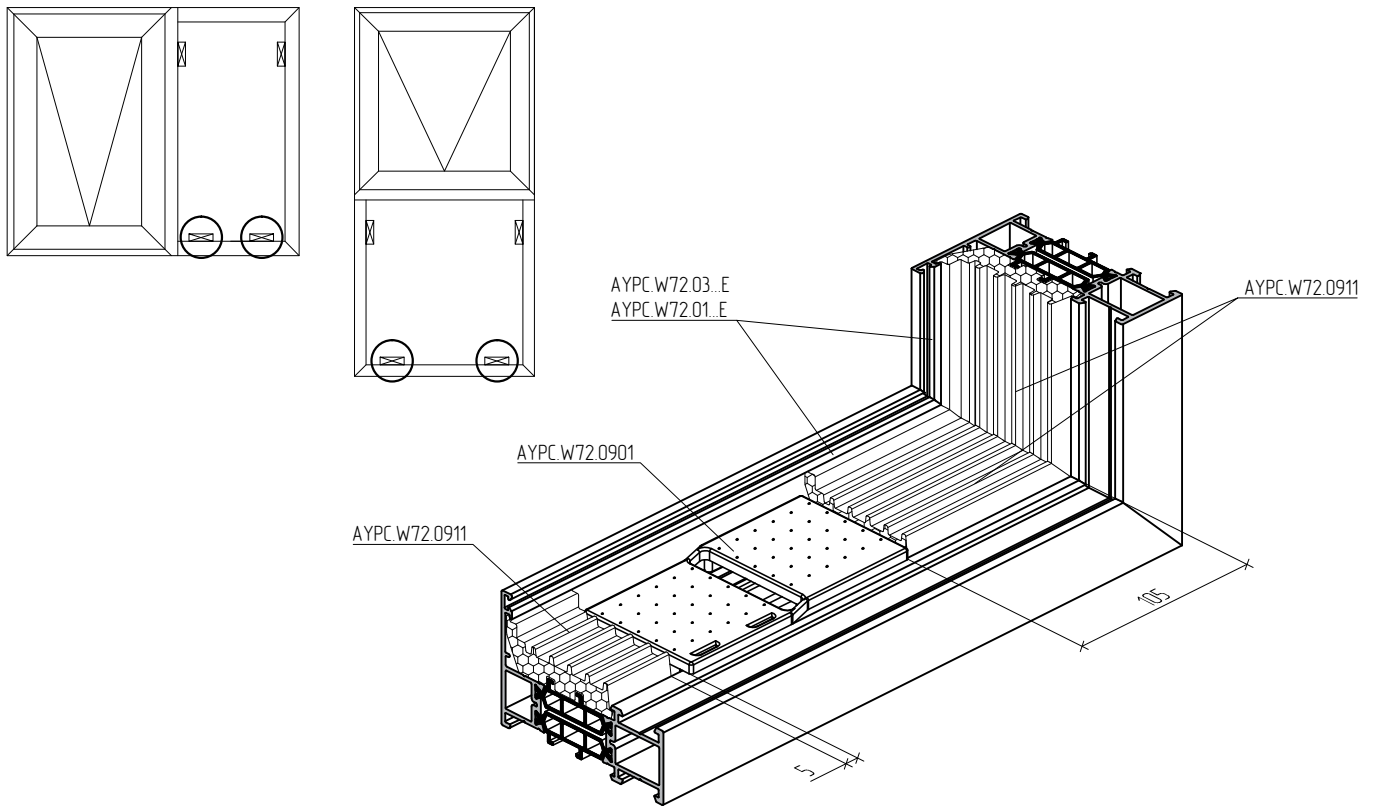
AYPC.W72.0901 bearing support

Profile	X, mm
Frame profile	105
Sash profile	50
Transom bar profile	85



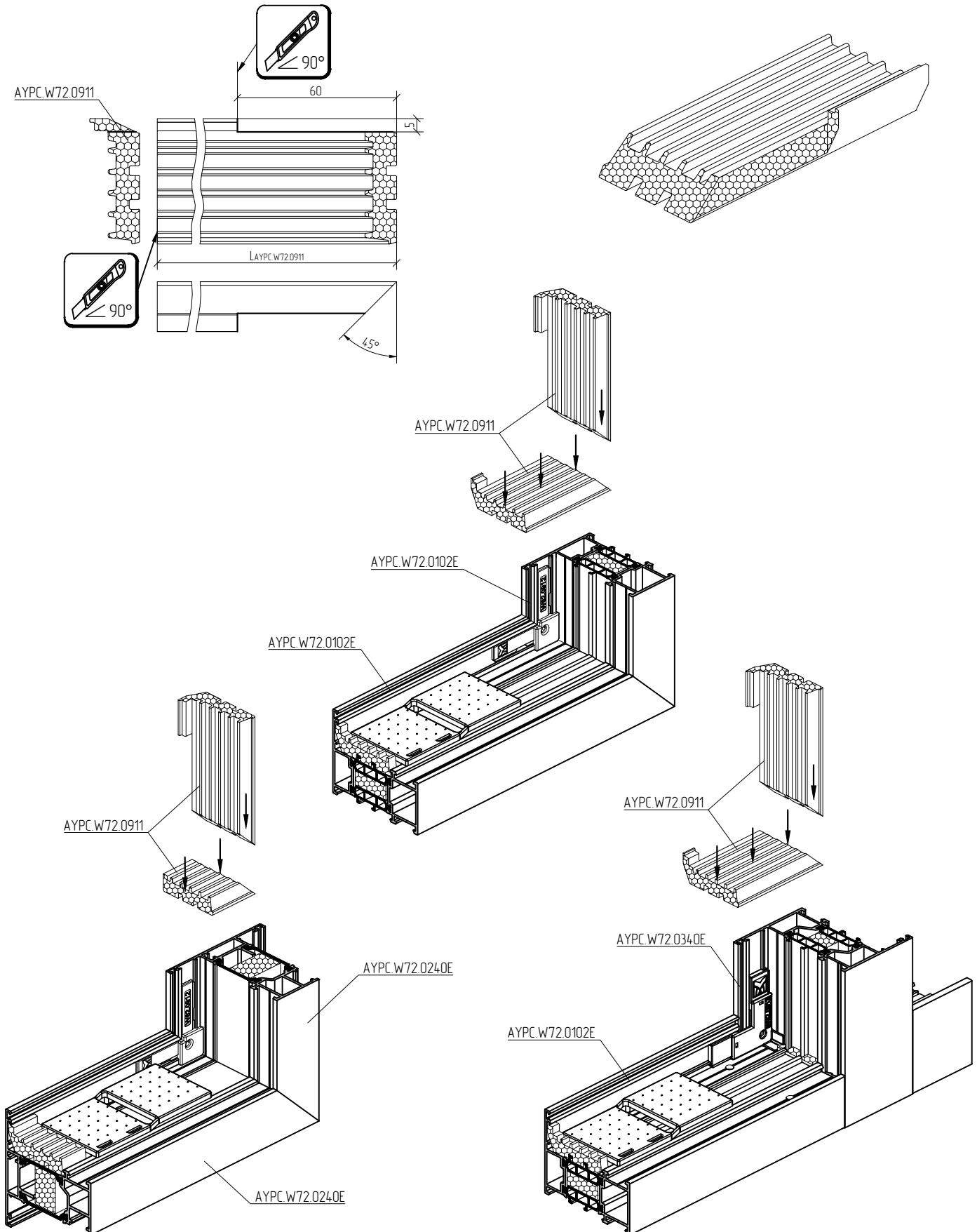
BEARING SUPPORT INSTALLATION DIAGRAM

Seam sealing processing for bearing support installation



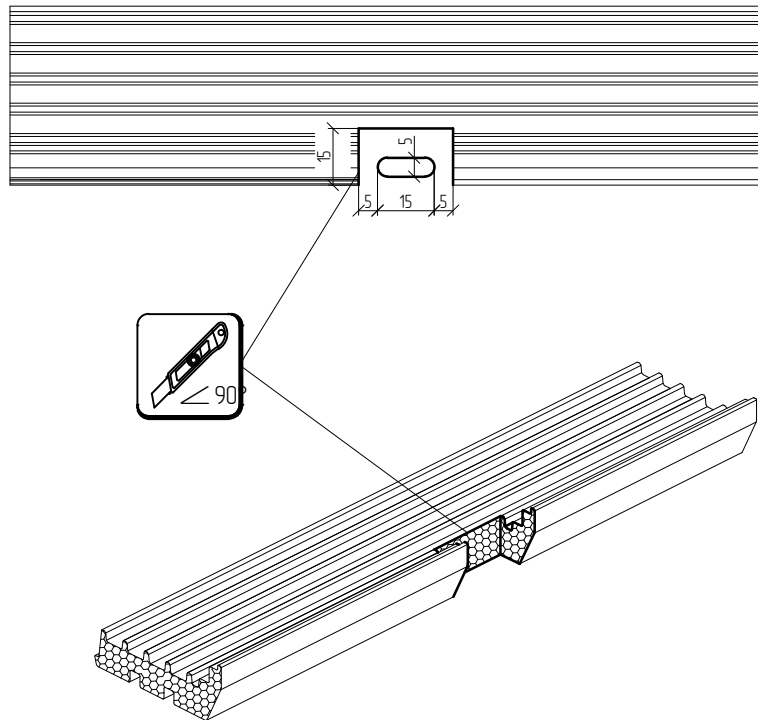
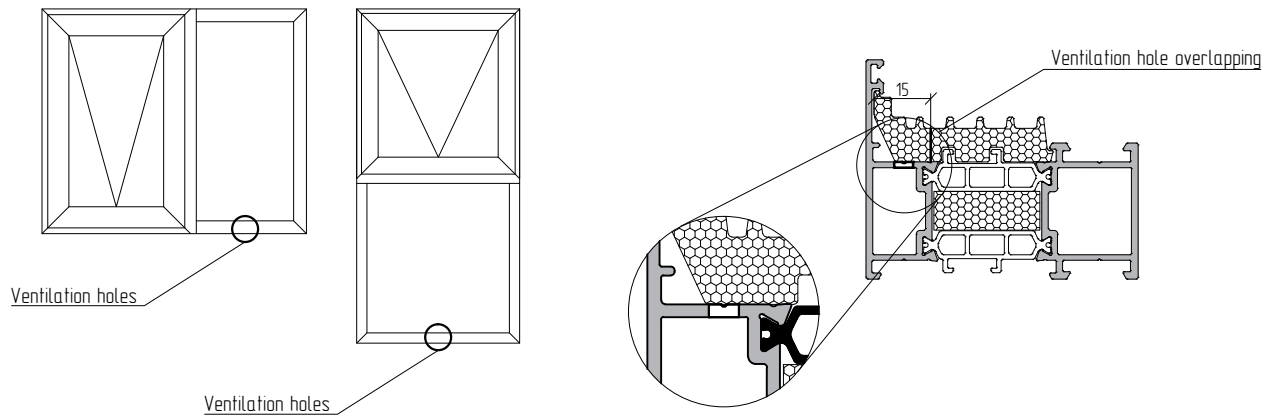
See AYPC.W72.0911 seam sealing processing in corner zone on page 04.03.

Seam sealing processing in the zone of installation of AYPC.W62.0912 and AYPC.W62.0913 plastic corners



BEARING SUPPORT INSTALLATION DIAGRAM

Processing of AYPC.W72.0911 seam sealing for ventilation holes





ALUTECH ALTW72 CW

Window system
with thermal break

Gasket cutting list and installation diagram

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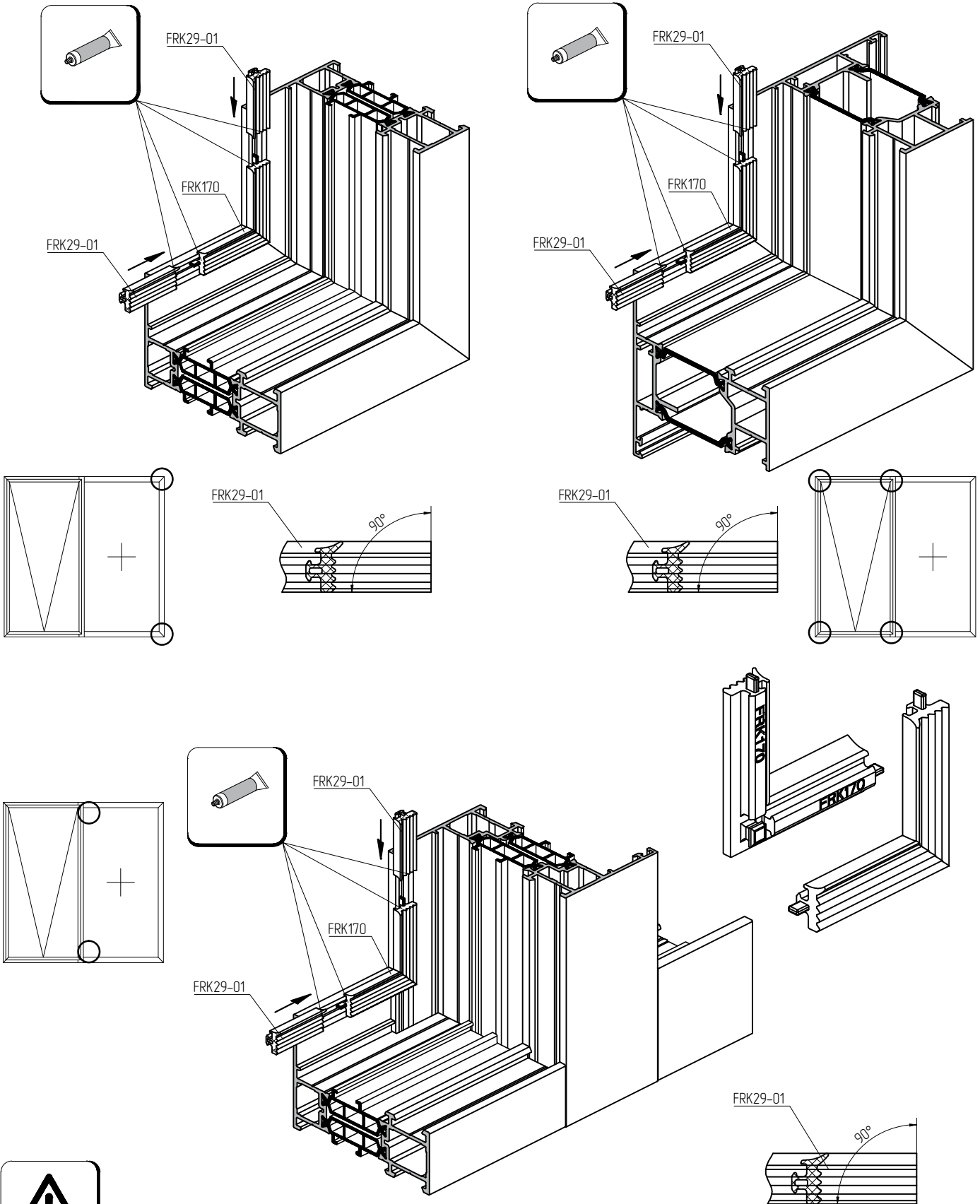
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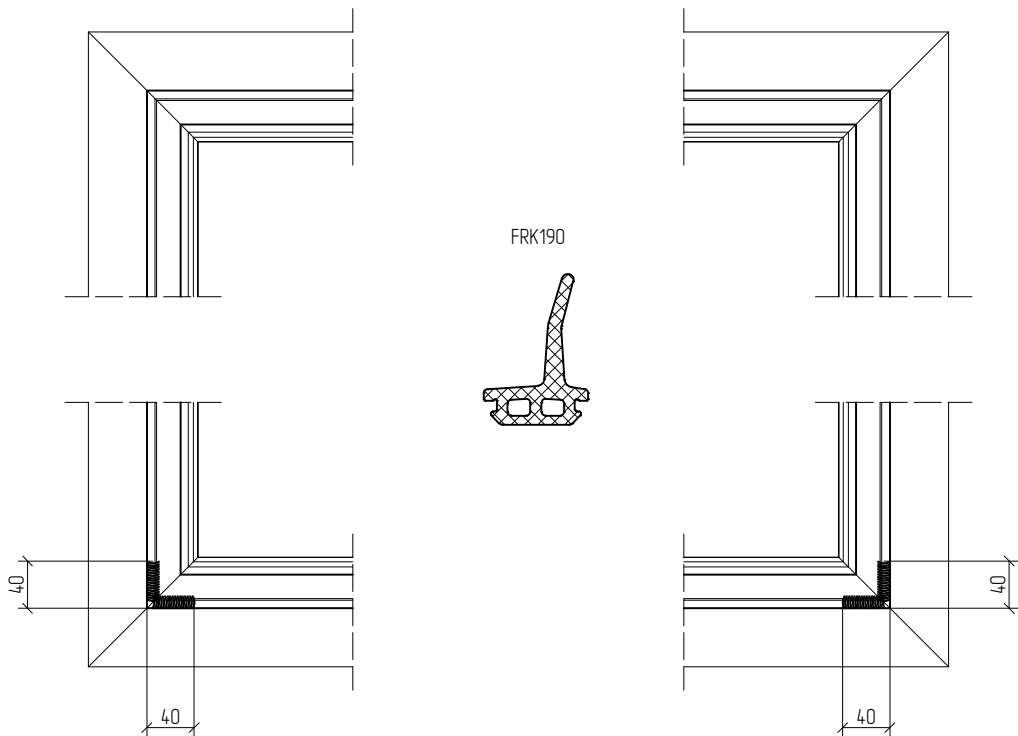
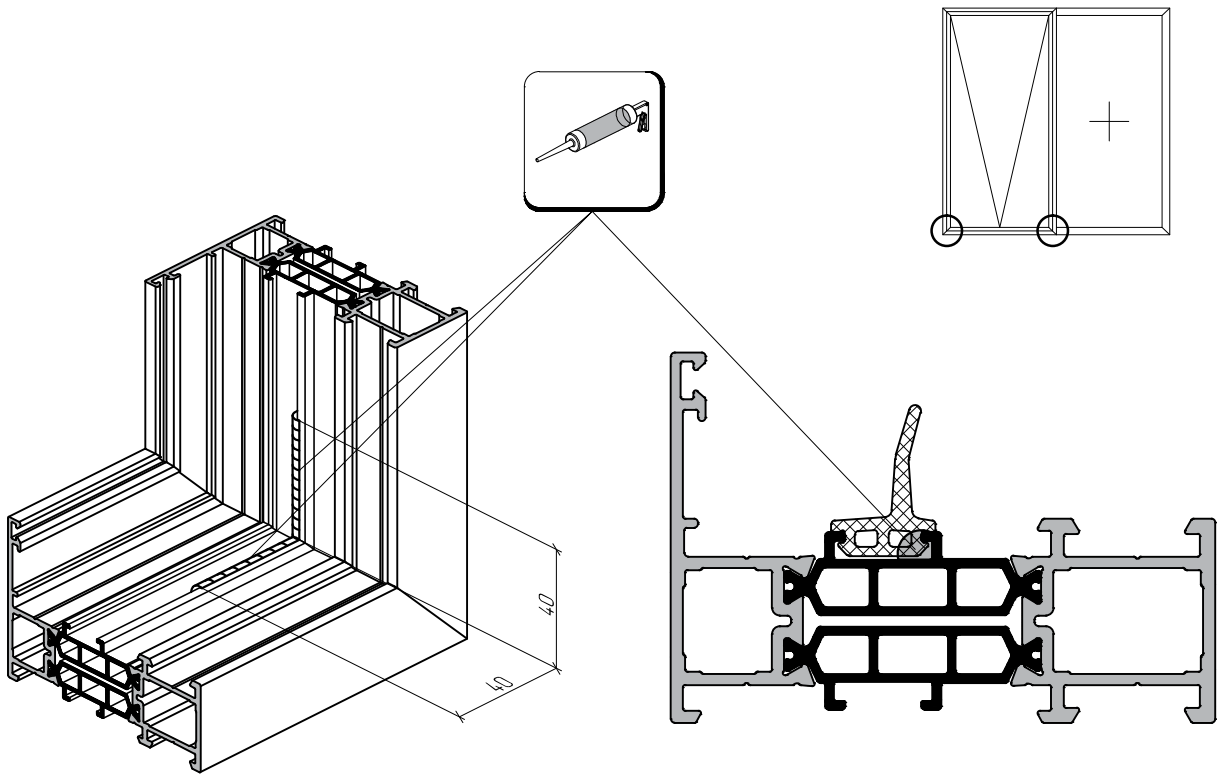
Cutting and installation of gaskets



Cut the gasket with 1% of extra length.
Gasket junction should be glued with the adhesive for rubber gasket gluing

GASKET CUTTING LIST AND INSTALLATION DIAGRAM

Cutting and installation of gaskets

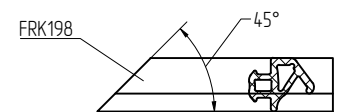
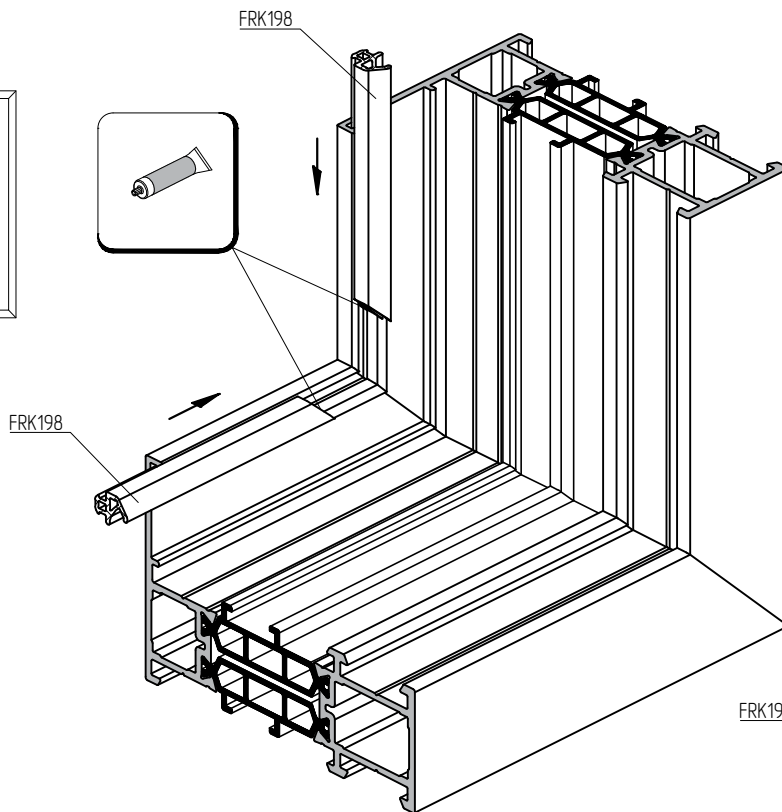
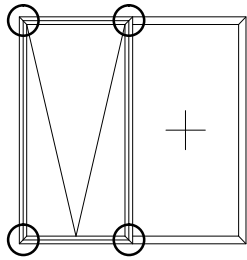
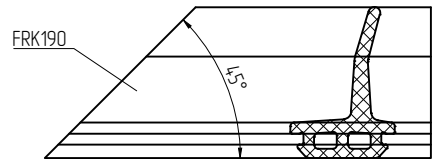
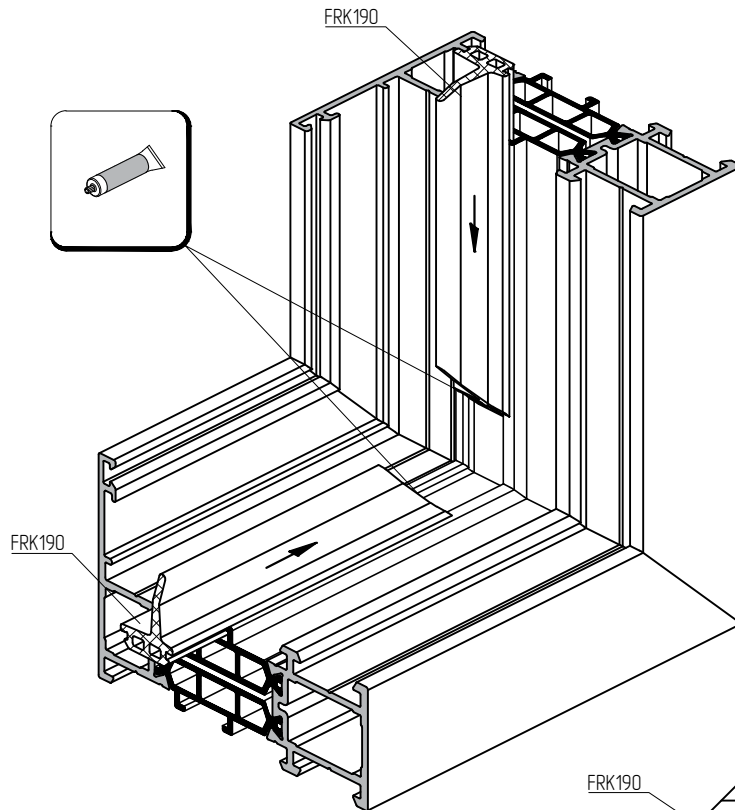
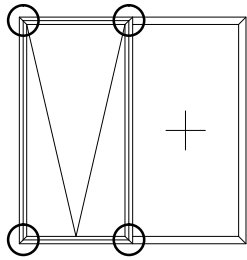


FRK190



Should be sealed. Sealant data is provided on the request.

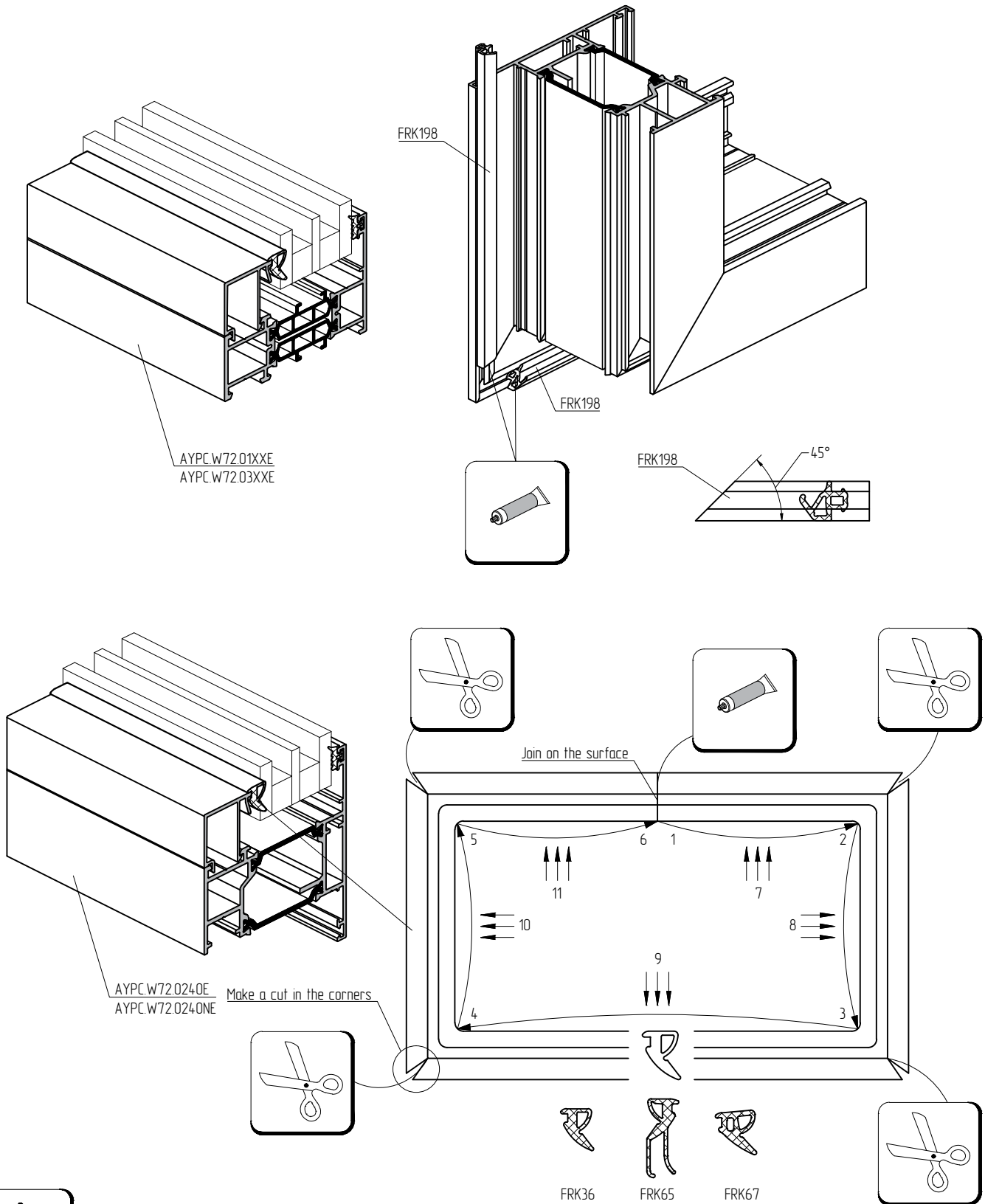
Cutting and installation of gaskets



Cut the gasket with 1% of extra length.
Gasket junction should be glued with the adhesive for rubber gasket gluing.

GASKET CUTTING LIST AND INSTALLATION DIAGRAM

Cutting and installation of gaskets



Cut the gasket with 1% of extra length.
Gasket junction should be glued with the adhesive for rubber gasket gluing.



ALUTECH ALTW72 CW

Window system
with thermal break

Table of glazing

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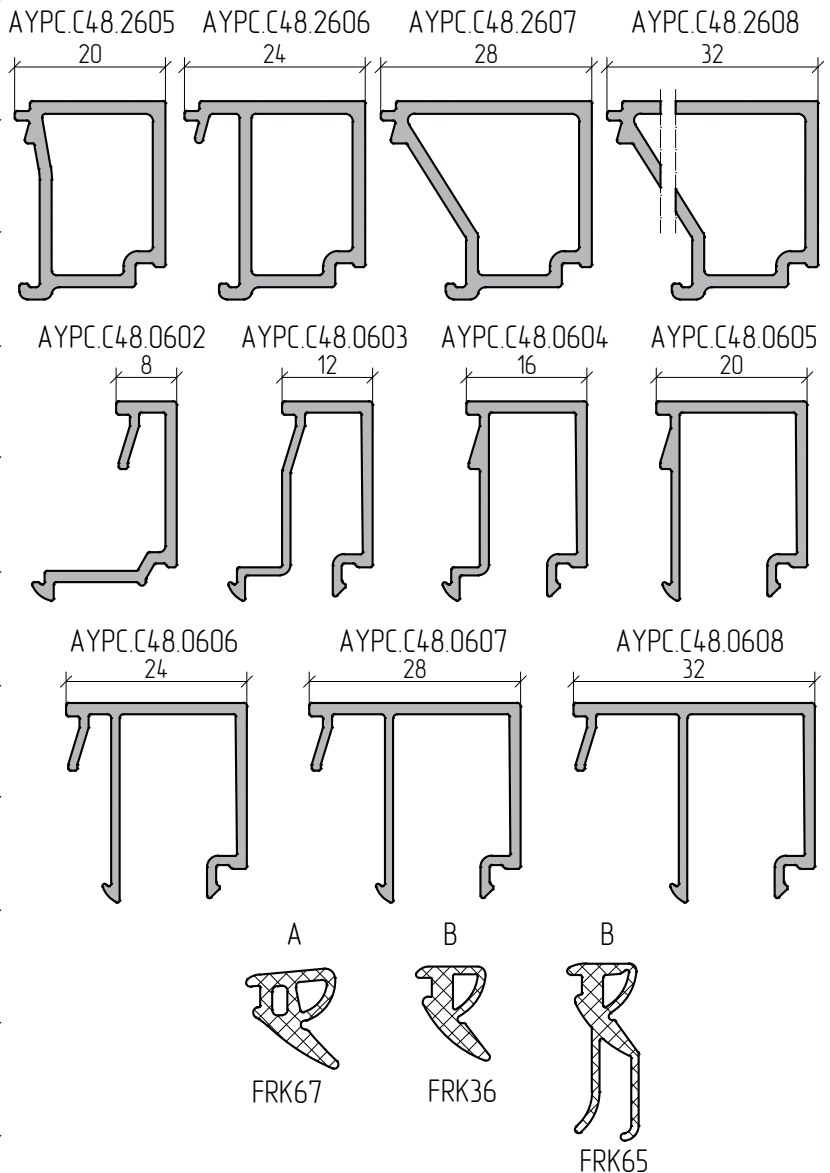
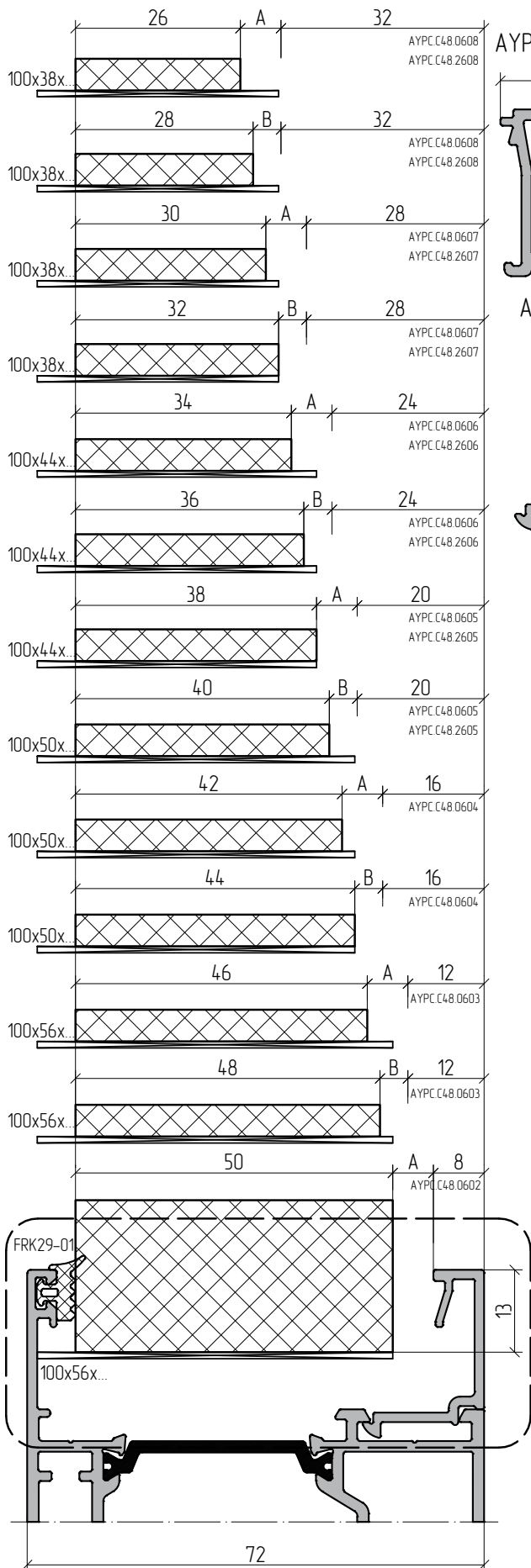
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Note:

- 1 - The base for infill unit installation is identical for all frame and sash system profiles;
- 2 - Data, given in the table, is reference information only. The values are given for preliminary calculations.

In case of practical use of this data, it is necessary to check its validity on the basis of the following parameters:

- accuracy of infill unit manufacturing (tolerances);
 - accuracy of gasket manufacturing (tolerances);
 - conditions of gasket installation and system assembly;
 - glass bead profile tolerances and combined profile assembly tolerances.
- For correct functioning, the gasket must be force fitted.

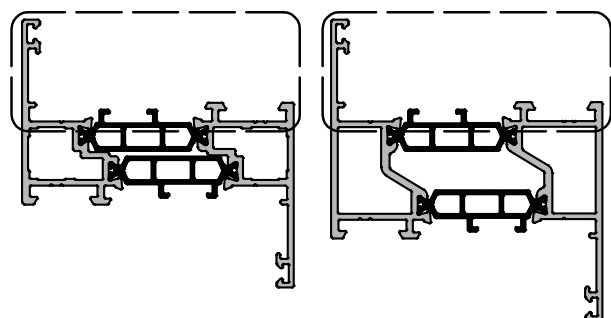
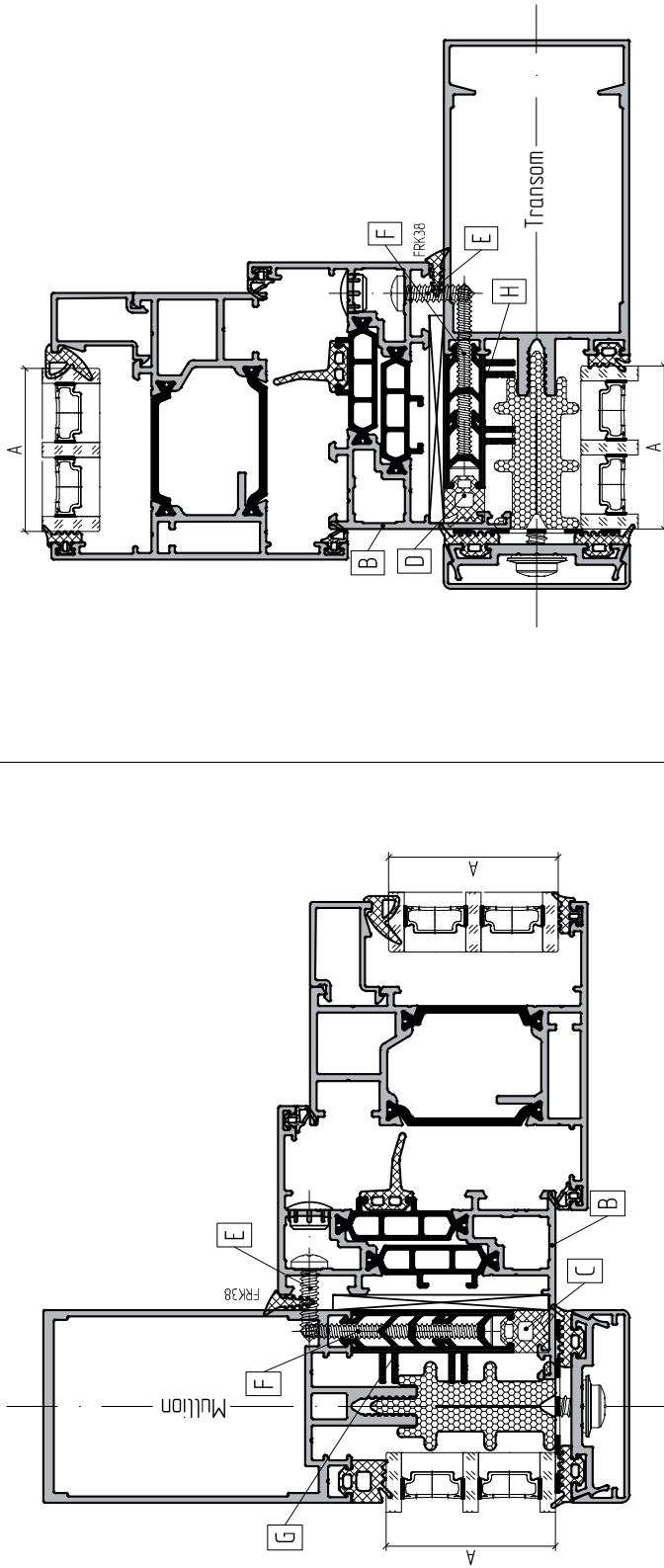


TABLE OF GLAZING

ALT W72CW window installation into facade using transom bar profile as a frame



Infill unit thickness	Frame profile	Gasket		Self-tapping screw			Distance profile	
		on multion	on transom bar	on multion/transom bar, 300 mm step	on distance profile, 300 mm step	on multion	on transom bar	
A	B	C	D	E	F	G	H	
22 mm	AYPC W72.0339E AYPC W72.0340E AYPC W72.0340NE	FRK17	FRK17	4.8x19-A2 DIN7981	3.9x32-A2 DIN7982	AYPC F50.0902-01	AYPC F50.0901-01	
24 mm		FRK17	FRK17	4.8x19-A2 DIN7981	3.9x32-A2 DIN7982	AYPC F50.0902-01	AYPC F50.0901-01	
26 mm		FRK17	FRK17	4.8x19-A2 DIN7981	3.9x32-A2 DIN7982	AYPC F50.0902-01	AYPC F50.0901-01	
28 mm		FRK17	FRK17	4.8x19-A2 DIN7981	3.9x32-A2 DIN7982	AYPC F50.0903-01	AYPC F50.0902-01	
30 mm		FRK17	FRK17	4.8x19-A2 DIN7981	3.9x32-A2 DIN7982	AYPC F50.0903-01	AYPC F50.0902-01	
32 mm		FRK17	FRK17	4.8x19-A2 DIN7981	3.9x32-A2 DIN7982	AYPC F50.0903-01	AYPC F50.0902-01	
34 mm		FRK17	FRK17	4.8x19-A2 DIN7981	3.9x45-A2 DIN7982	2 x AYPC F50.0901-01	AYPC F50.0903-01	
36 mm		FRK17	FRK17	4.8x19-A2 DIN7981	3.9x45-A2 DIN7982	2 x AYPC F50.0901-01	AYPC F50.0903-01	
38 mm		FRK17	FRK17	4.8x19-A2 DIN7981	3.9x45-A2 DIN7982	2 x AYPC F50.0901-01	AYPC F50.0903-01	
4.0 mm		FRK17	FRK17	4.8x19-A2 DIN7981	3.9x50-A2 DIN7982	AYPC F50.0901-01	AYPC F50.0903-01	2 x AYPC F50.0901-01
4.2 mm	FRK17	FRK17	4.8x19-A2 DIN7981	3.9x50-A2 DIN7982	AYPC F50.0901-01	AYPC F50.0903-01	2 x AYPC F50.0901-01	
4.4 mm	FRK17	FRK17	4.8x19-A2 DIN7981	3.9x50-A2 DIN7982	AYPC F50.0901-01	AYPC F50.0903-01	2 x AYPC F50.0901-01	

Data on FRK17 gasket AYPC F50.0901-AYPC F50.0903 distance profiles are given in ALT F50 technical catalogue.



ALUTECH ALTW72 CW

Window system
with thermal break

Windows. Sections and junctions

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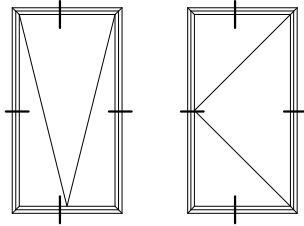
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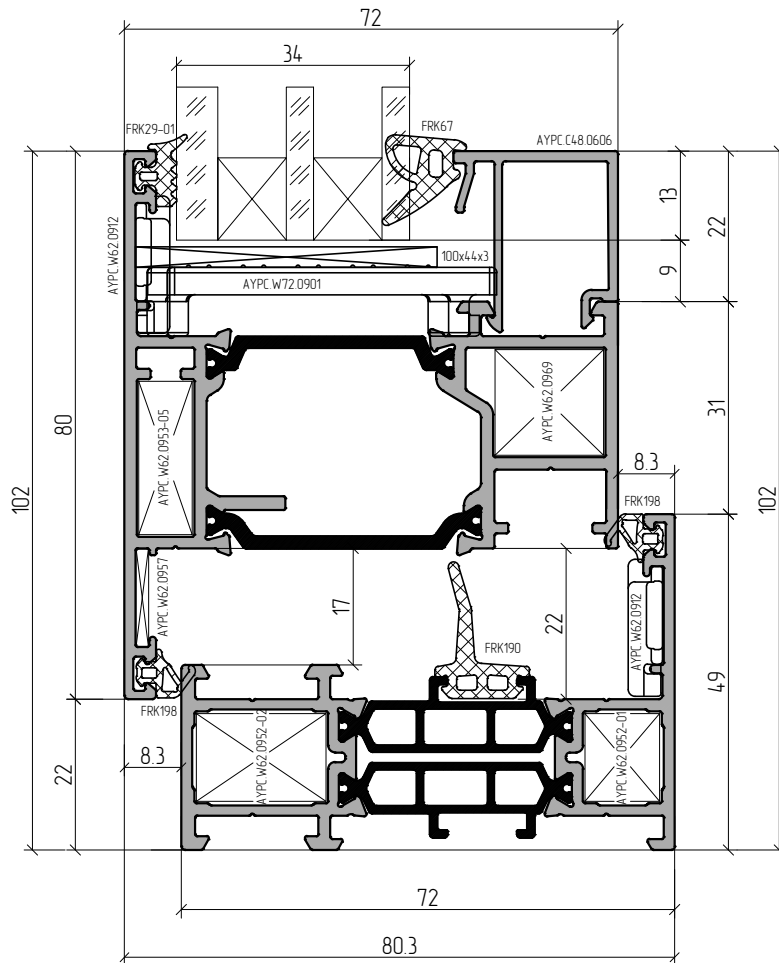
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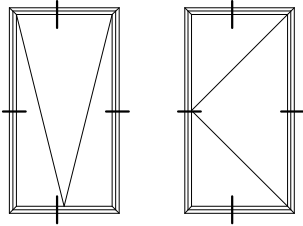
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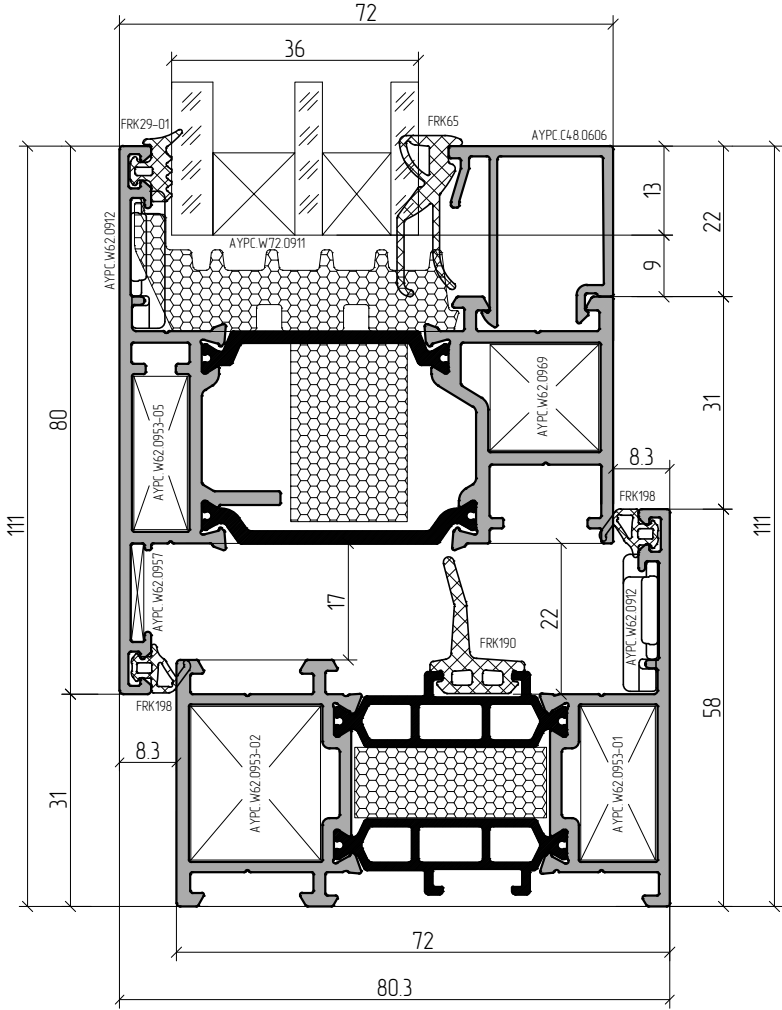
AYPC.W72.0101E + AYPC.W72.0240NE

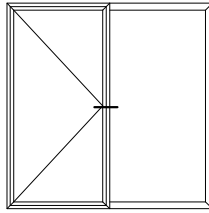
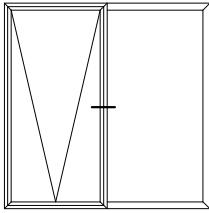


WINDOWS. SECTIONS AND JUNCTIONS

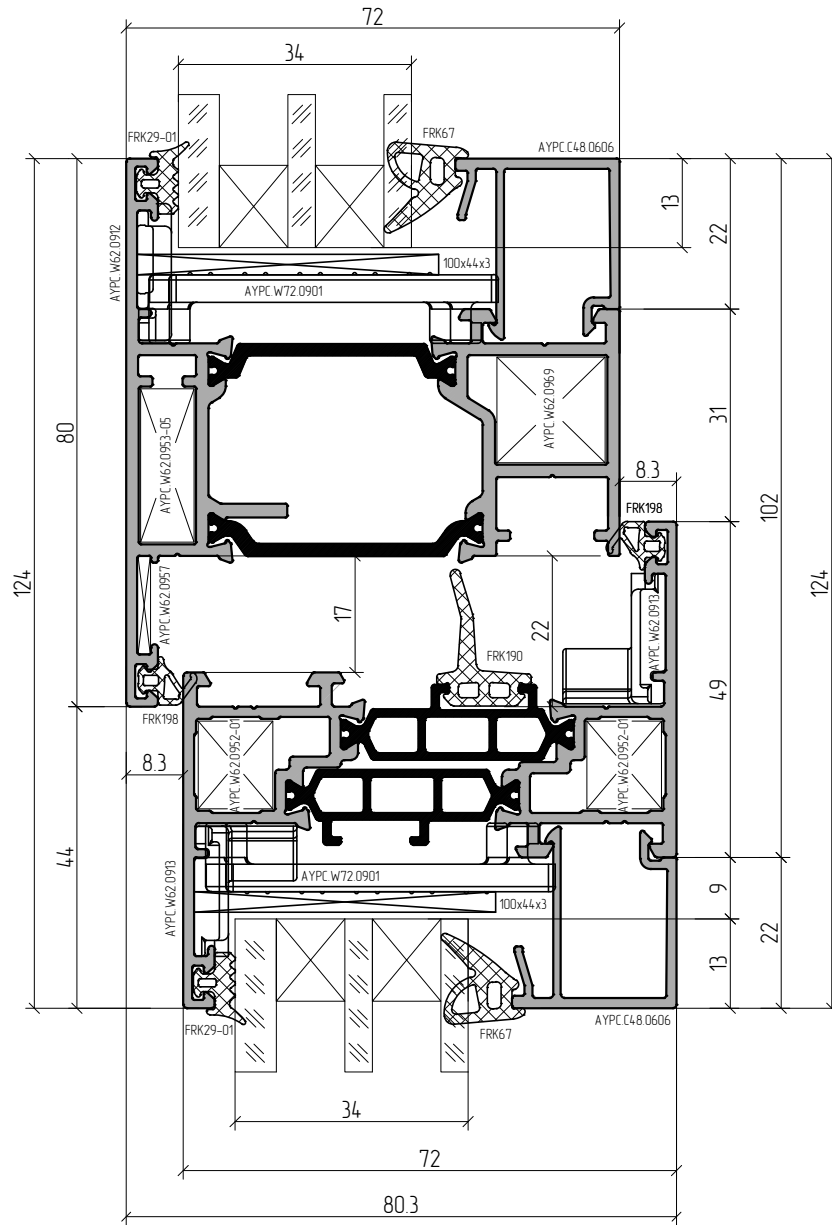


AYPC.W72.0102E + AYPC.W72.0240E

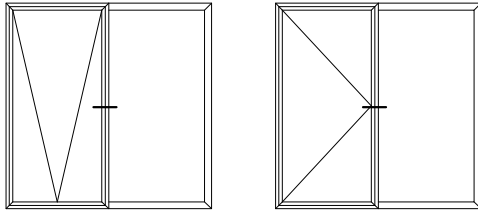




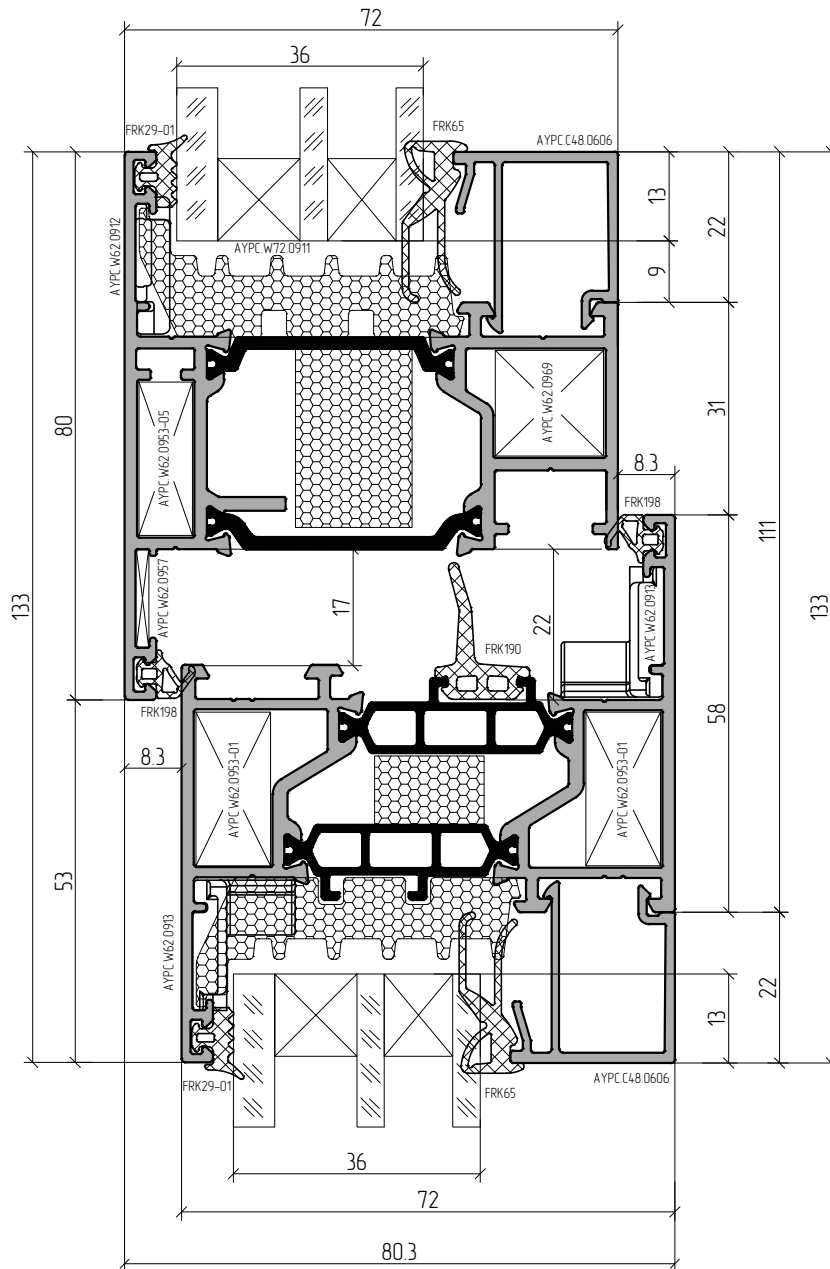
AYPC.W72.0339E + AYPC.W72.0240NE

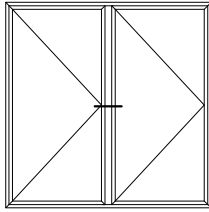
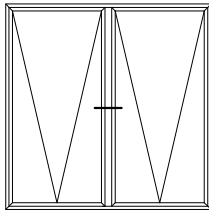


WINDOWS. SECTIONS AND JUNCTIONS

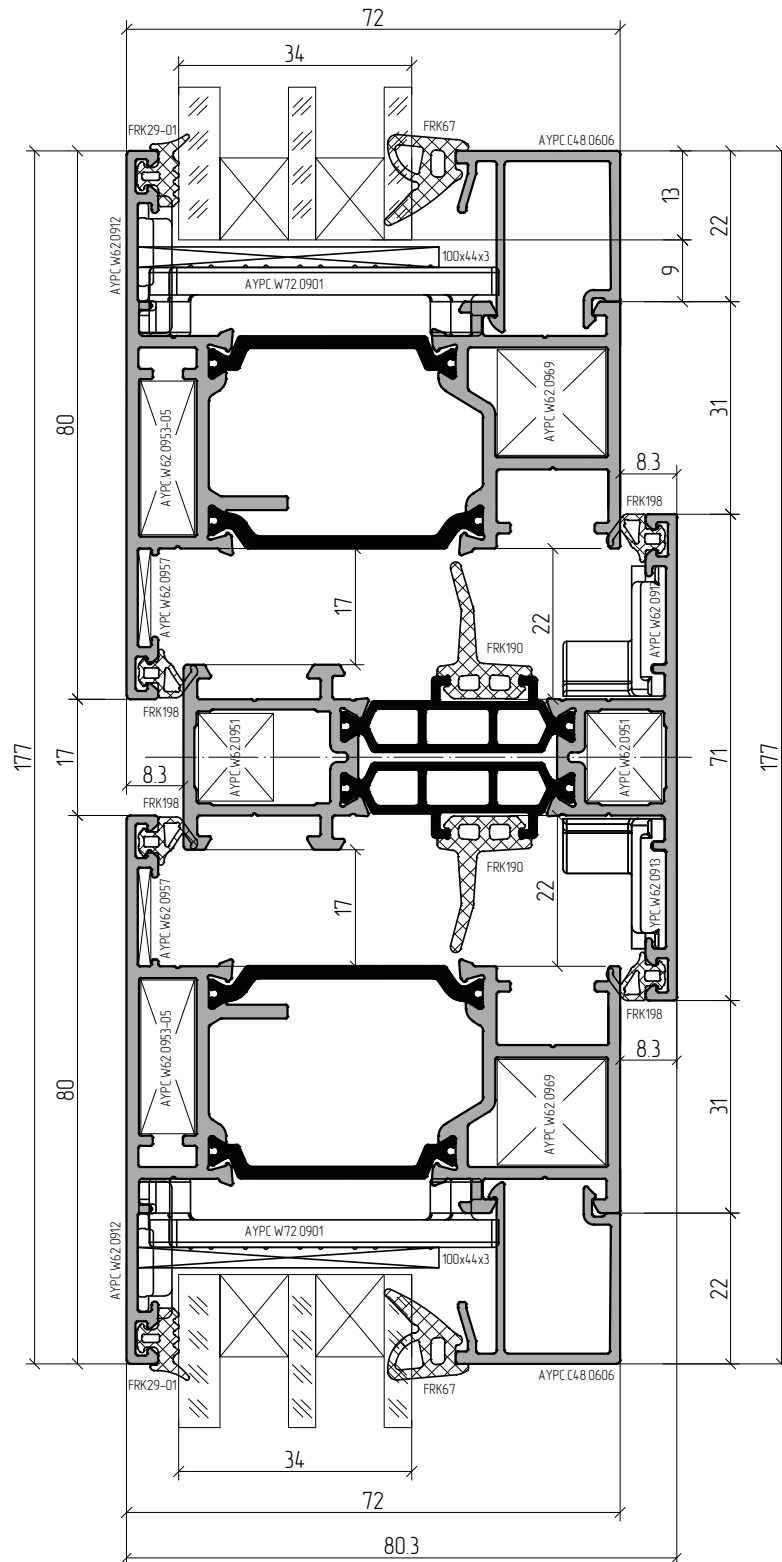


AYPC.W72.0340E + AYPC.W72.0240E

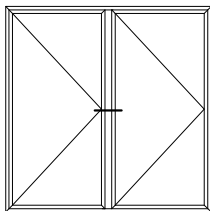
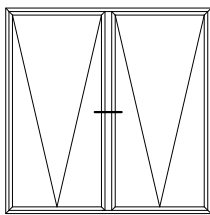




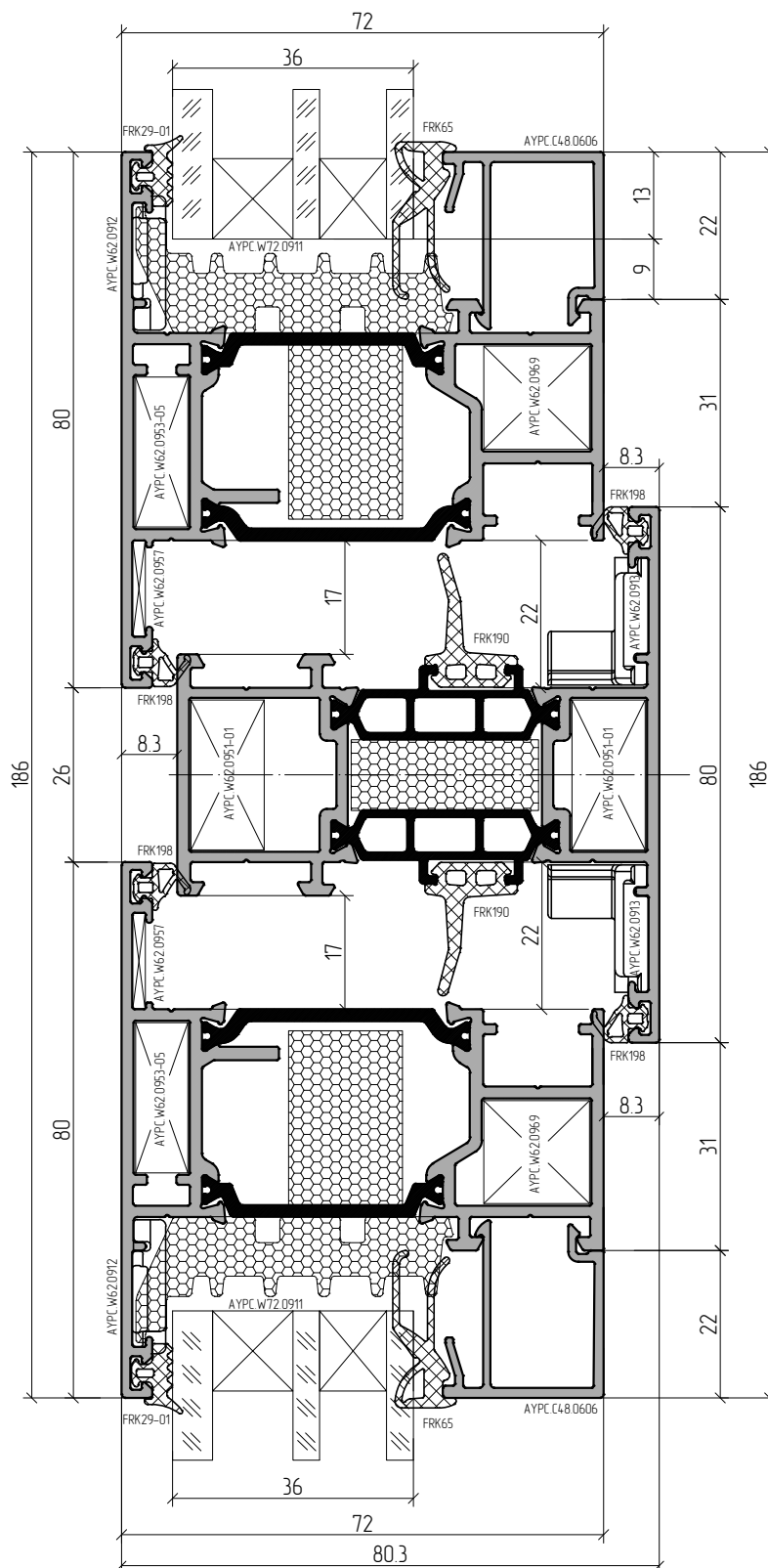
AYPC.W72.0301E + AYPC.W72.0240NE

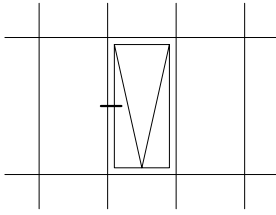


WINDOWS. SECTIONS AND JUNCTIONS

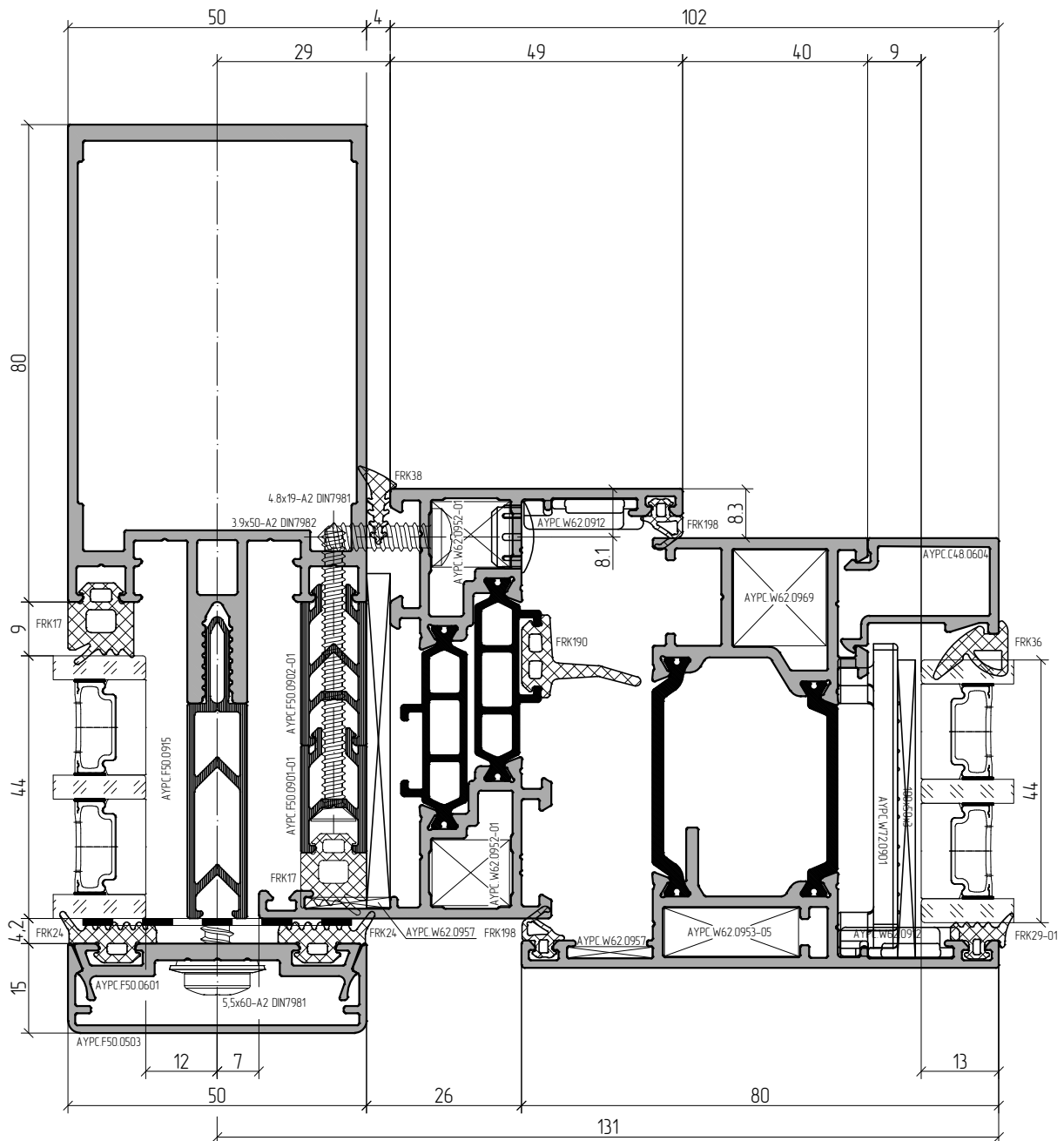


AYPC.W72.0302E + AYPC.W72.0240E

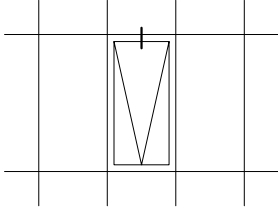




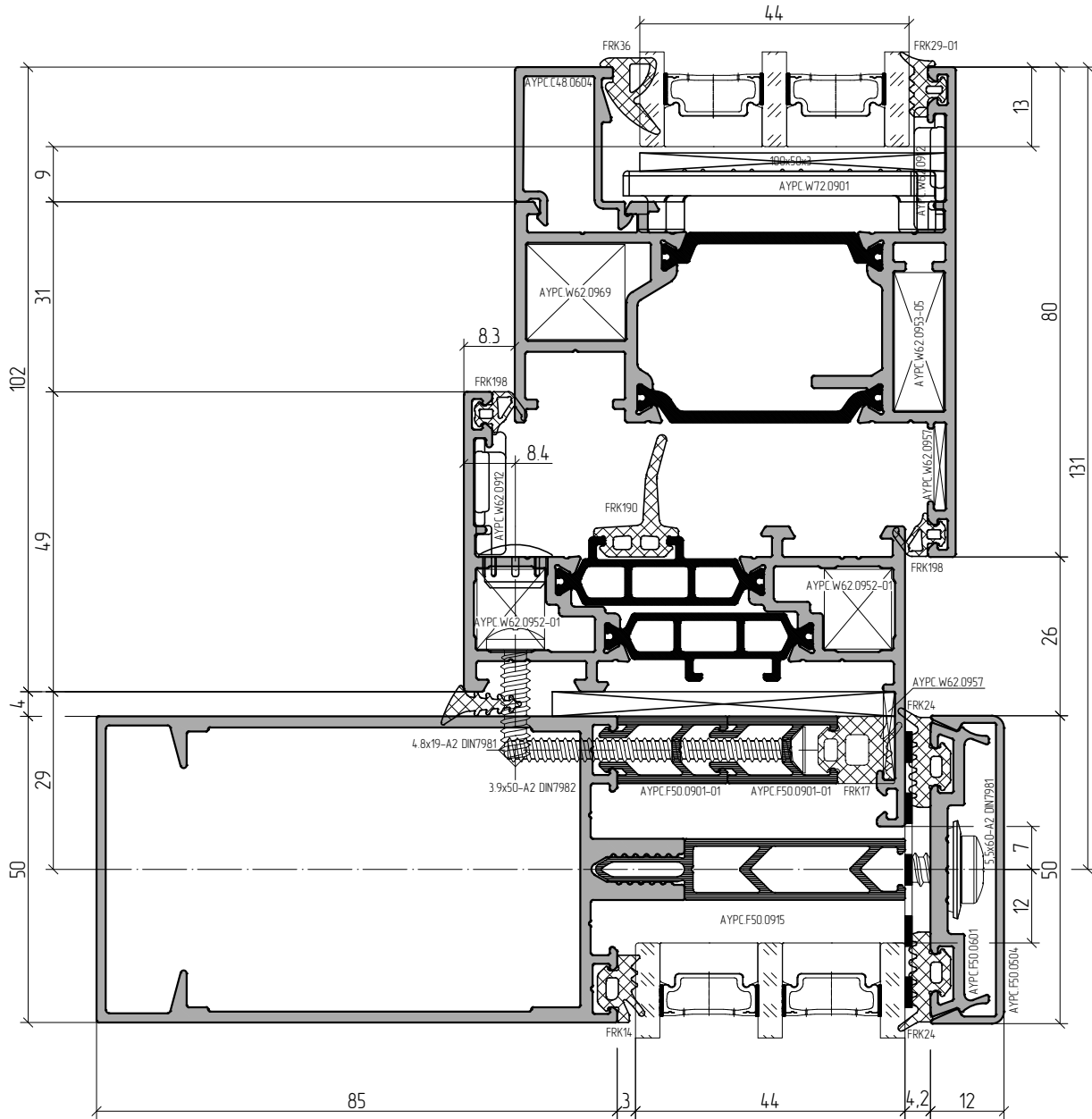
AYPC.F50.0103 + AYPC.W72.0339E + AYPC.W72.0240NE



WINDOWS. SECTIONS AND JUNCTIONS



AYPC.F50.0206 + AYPC.W72.0339E + AYPC.W72.0240NE





ALUTECH ALTW72 CW

Window system
with thermal break

Profile processing

01

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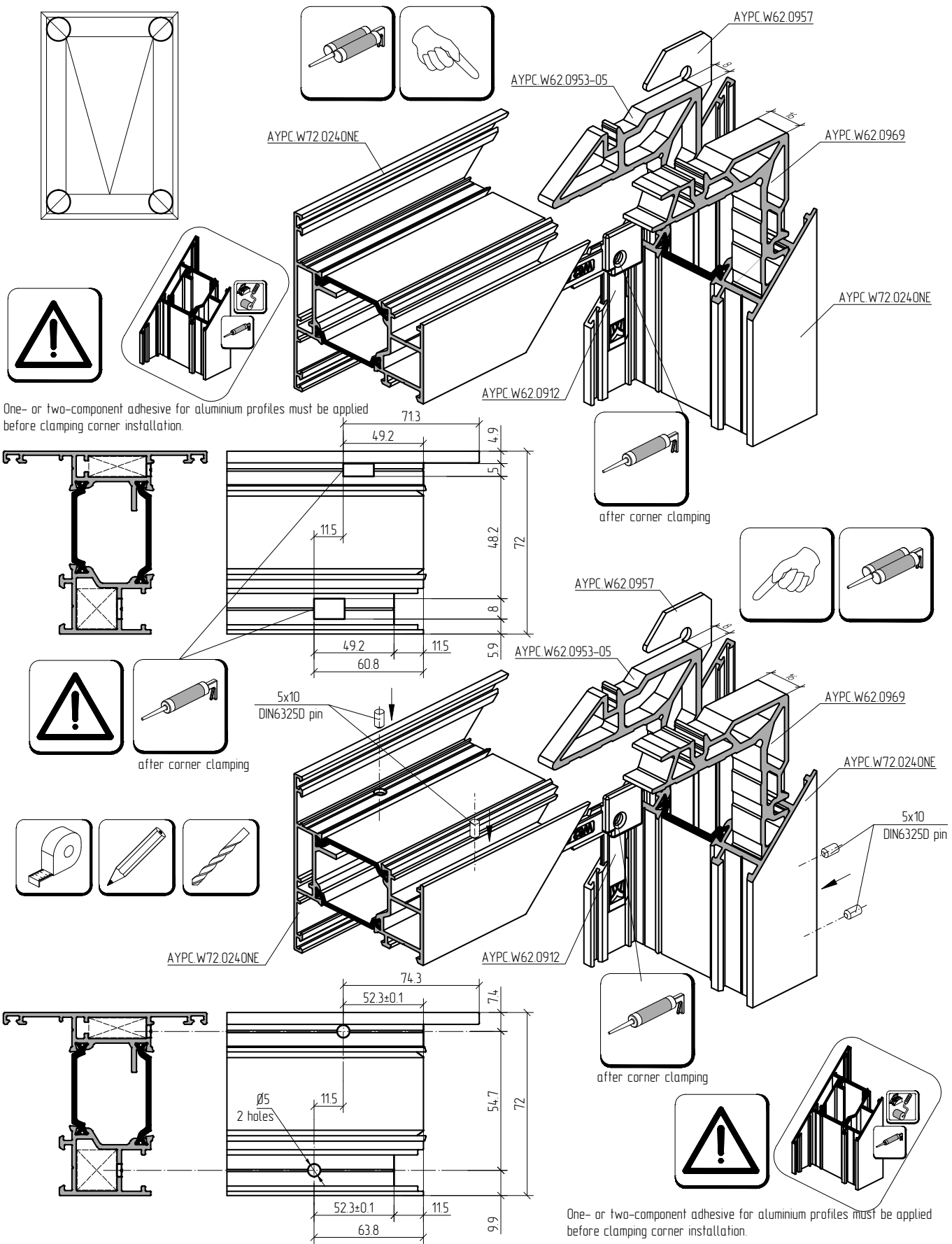
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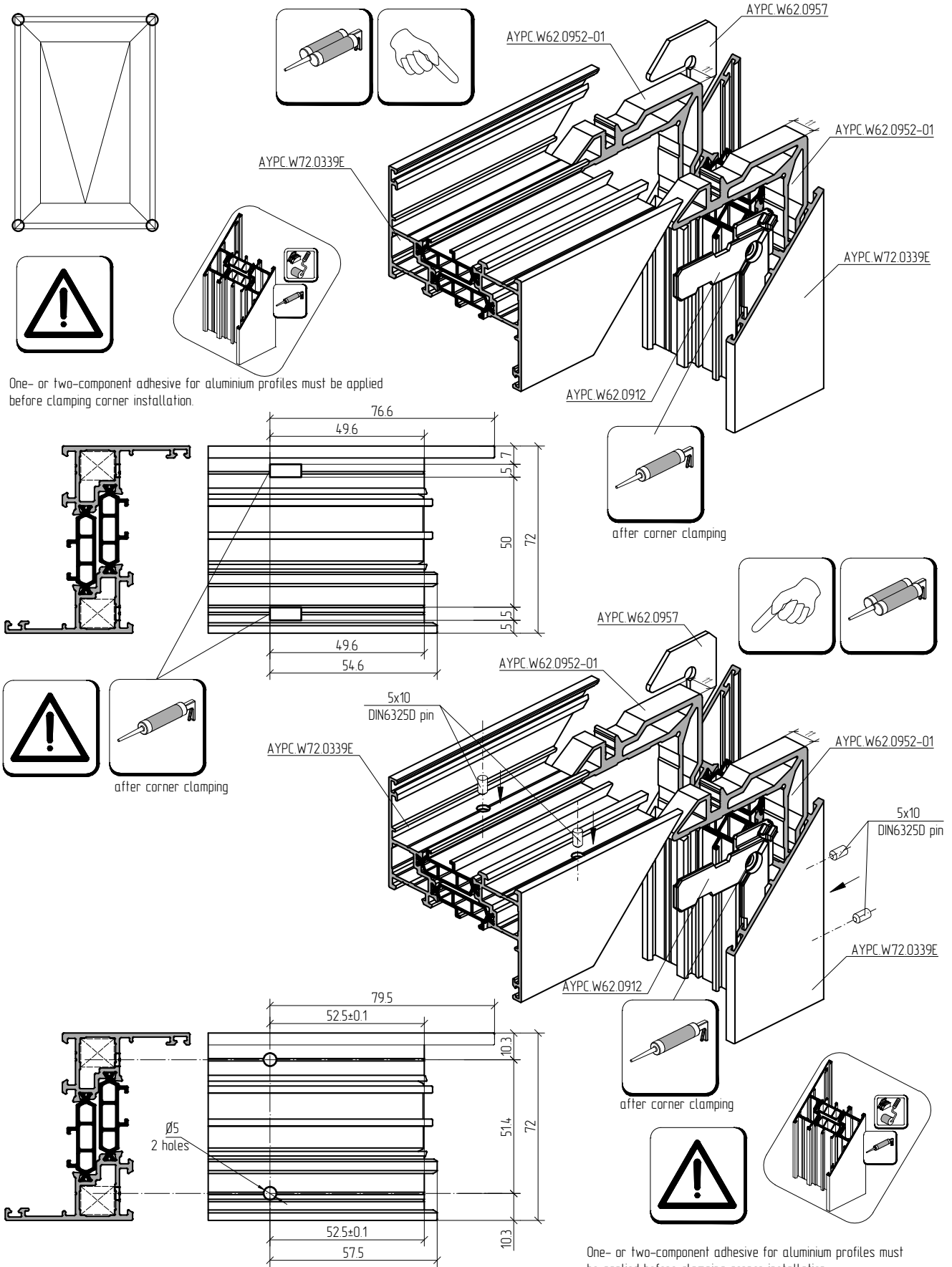
12

AYPC.W72.0240E/AYPC.W72.0240NE profile corner joint by clamping and using 5 x10 pins

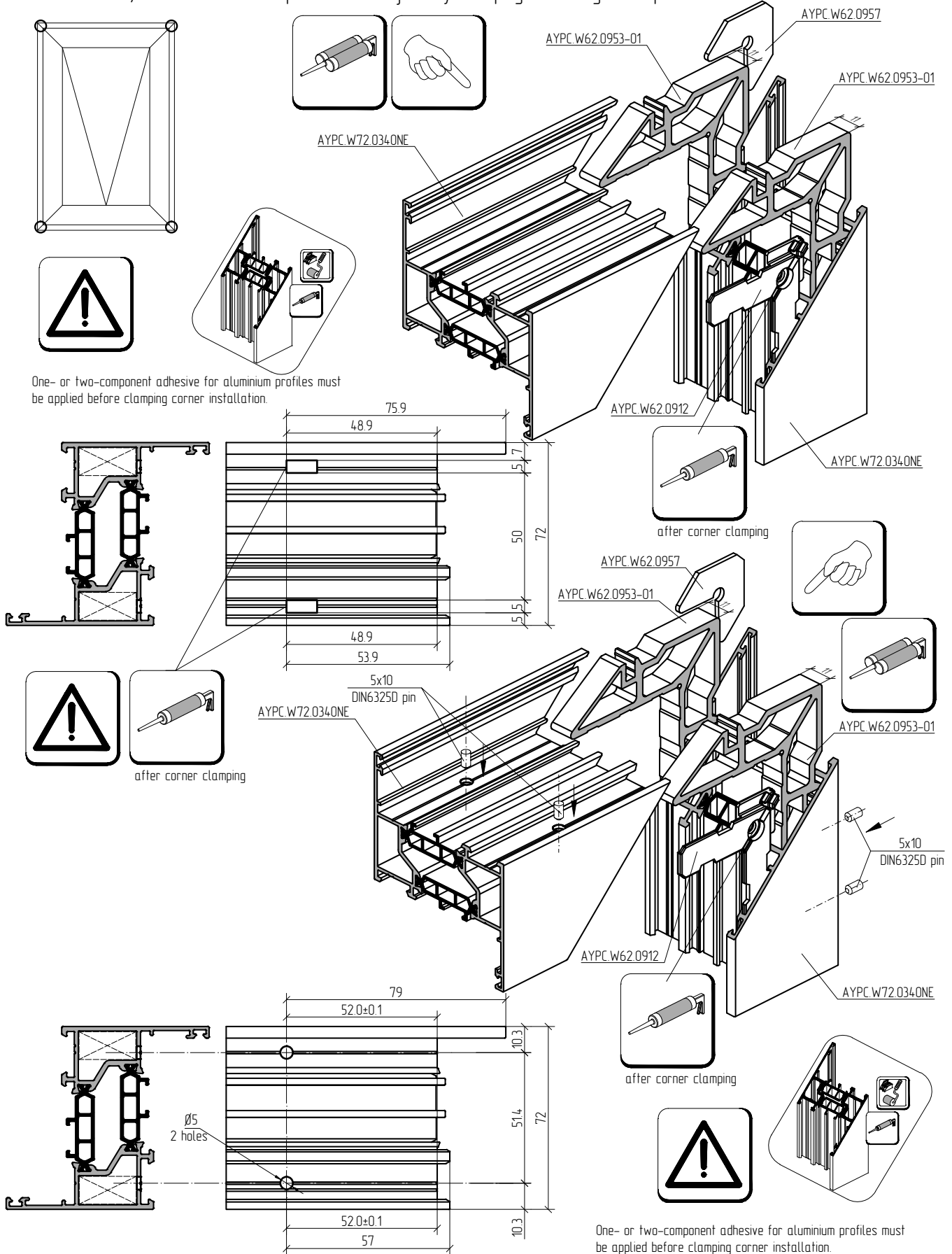


PROFILE PROCESSING

AYPC.W72.0339E profile corner joint by clamping and using 5 x10 pins

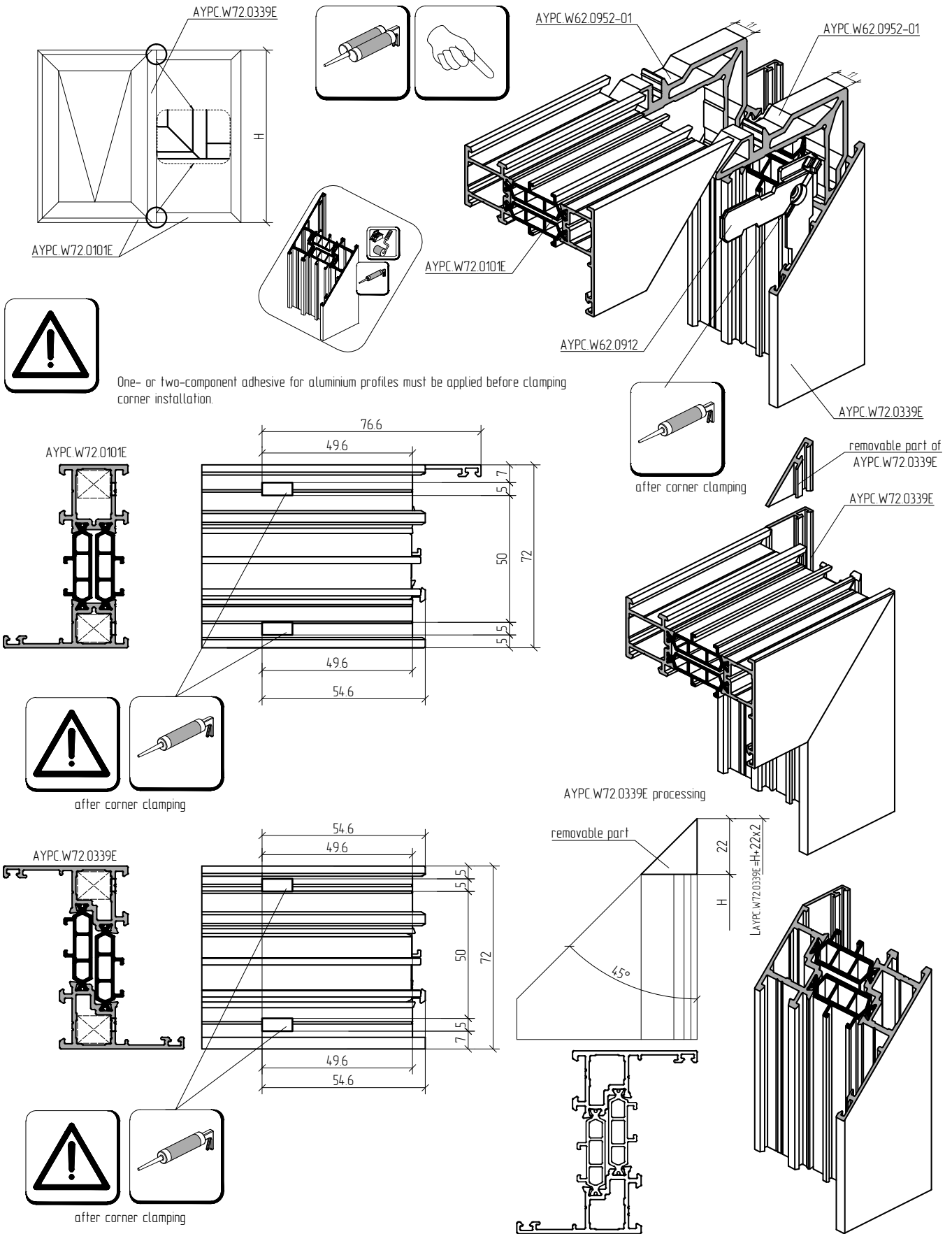


AYPC.W72.0340E/AYPC.W72.0340NE profile corner joint by clamping and using 5 x10 pins



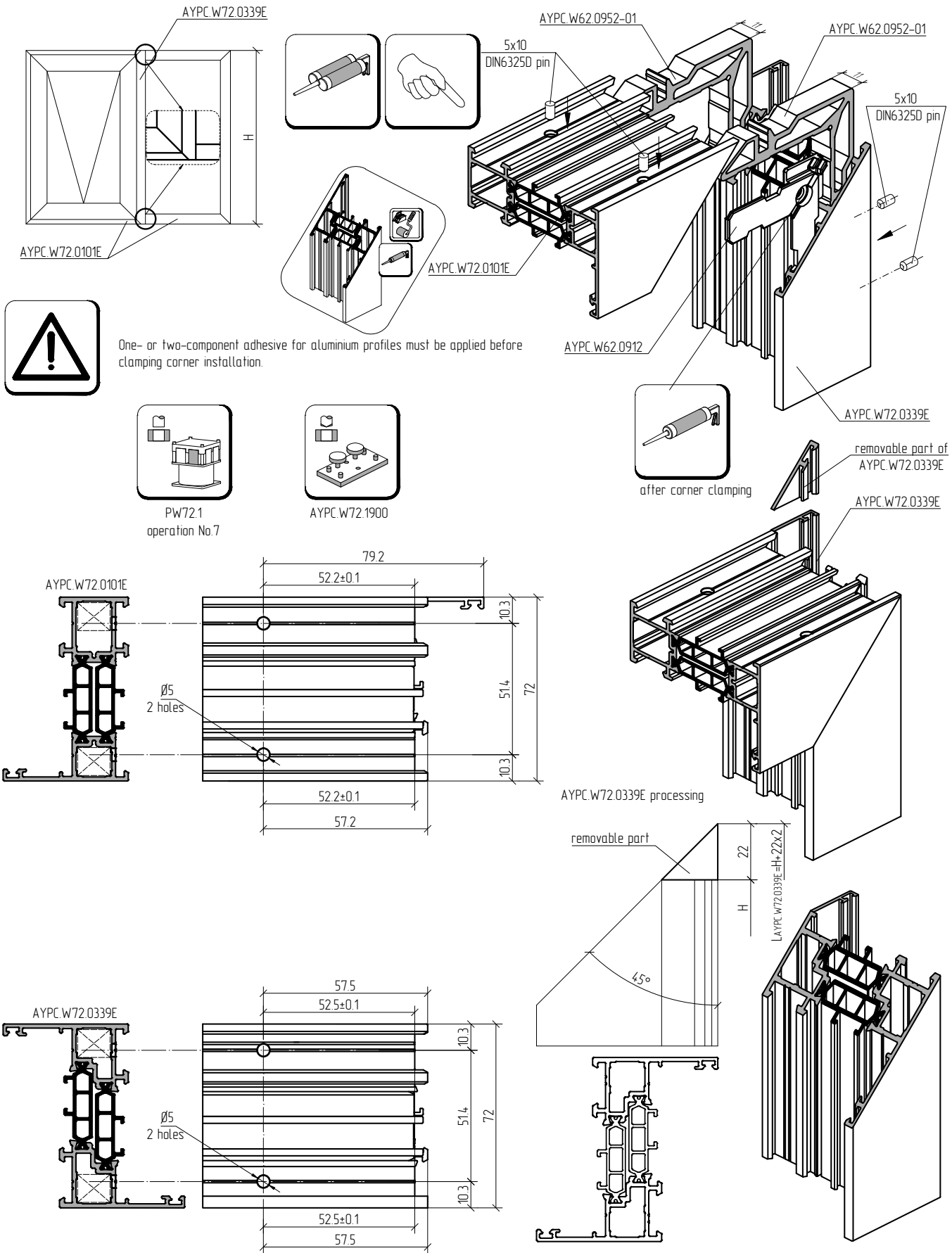
PROFILE PROCESSING

AYPC.W72.0101E and AYPC.W72.0339E profiles corner joint by clamping



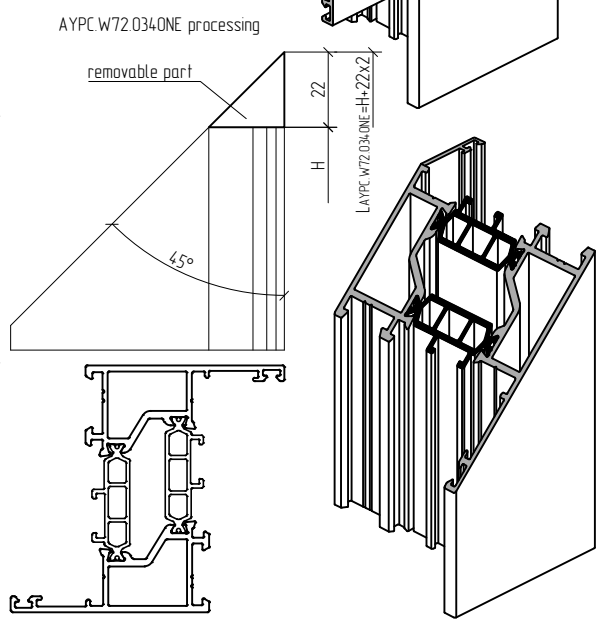
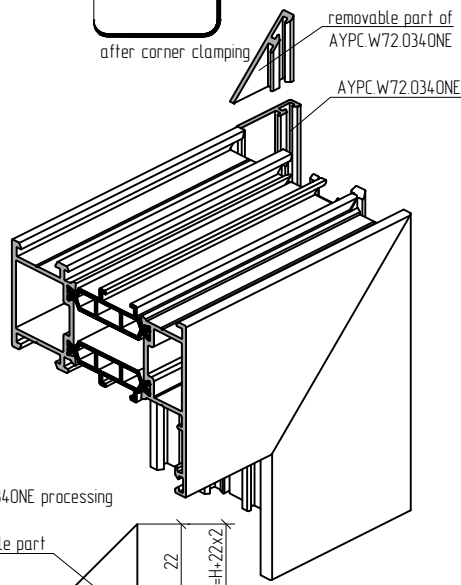
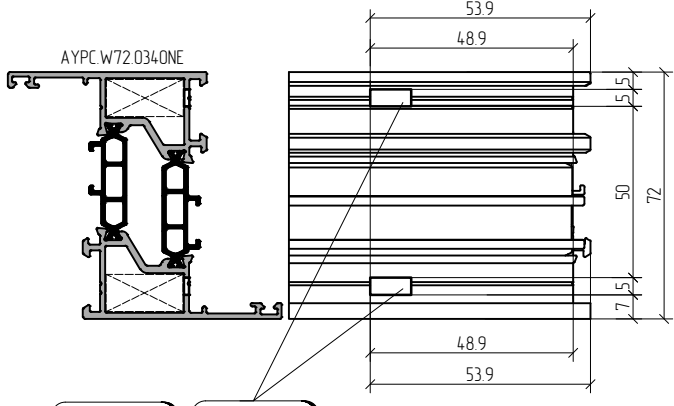
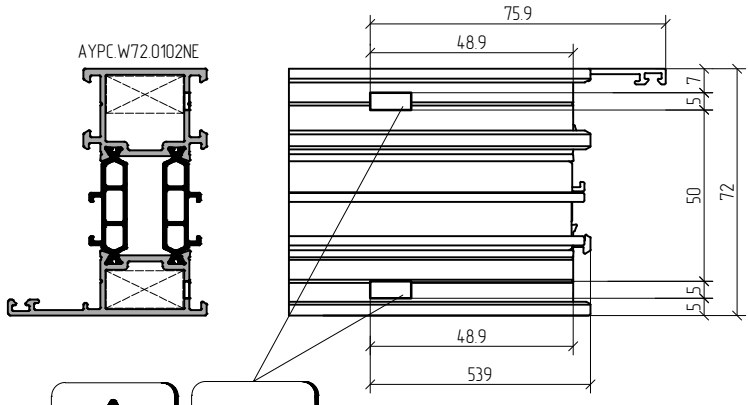
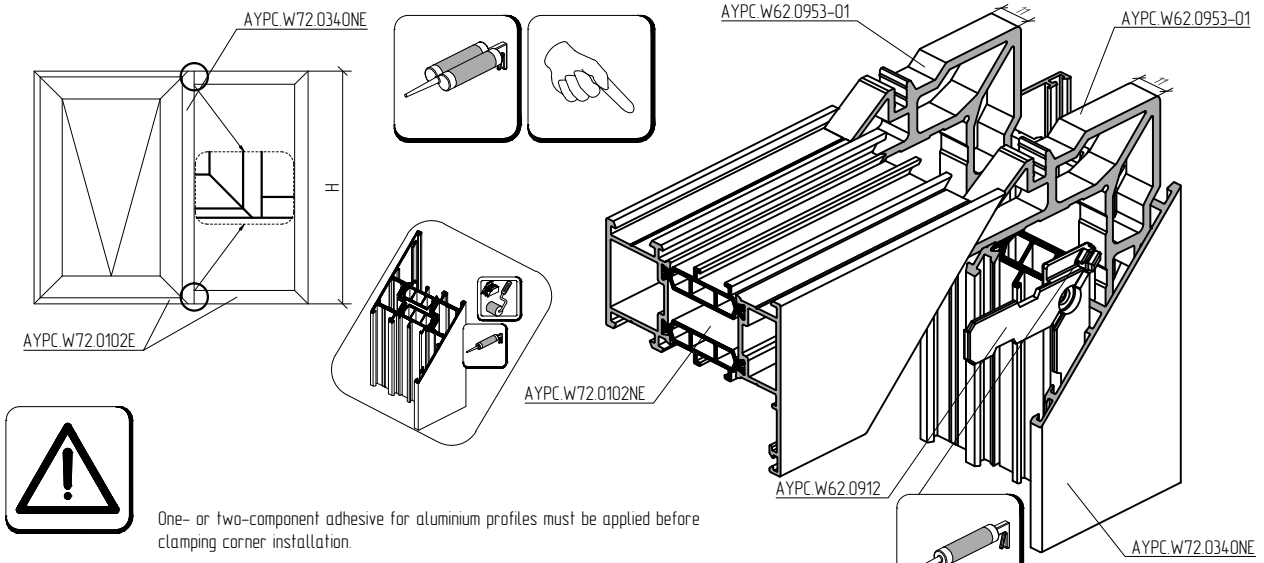
One- or two-component adhesive for aluminium profiles must be applied before clamping corner installation.

AYPC.W72.0101E and AYPC.W72.0339E profiles corner joint by using 5 x10 pins

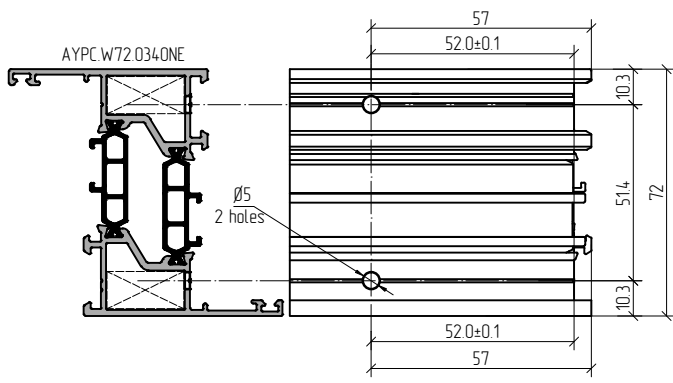
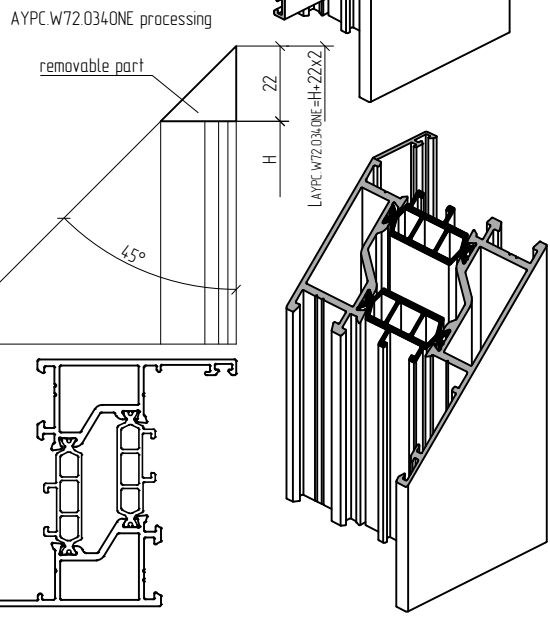
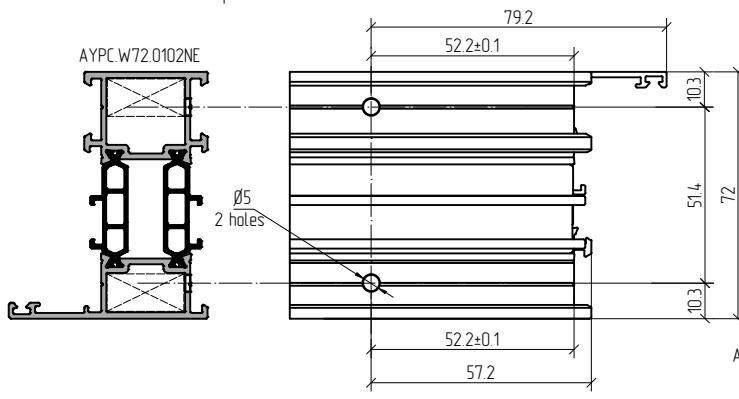
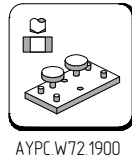
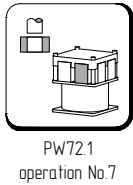
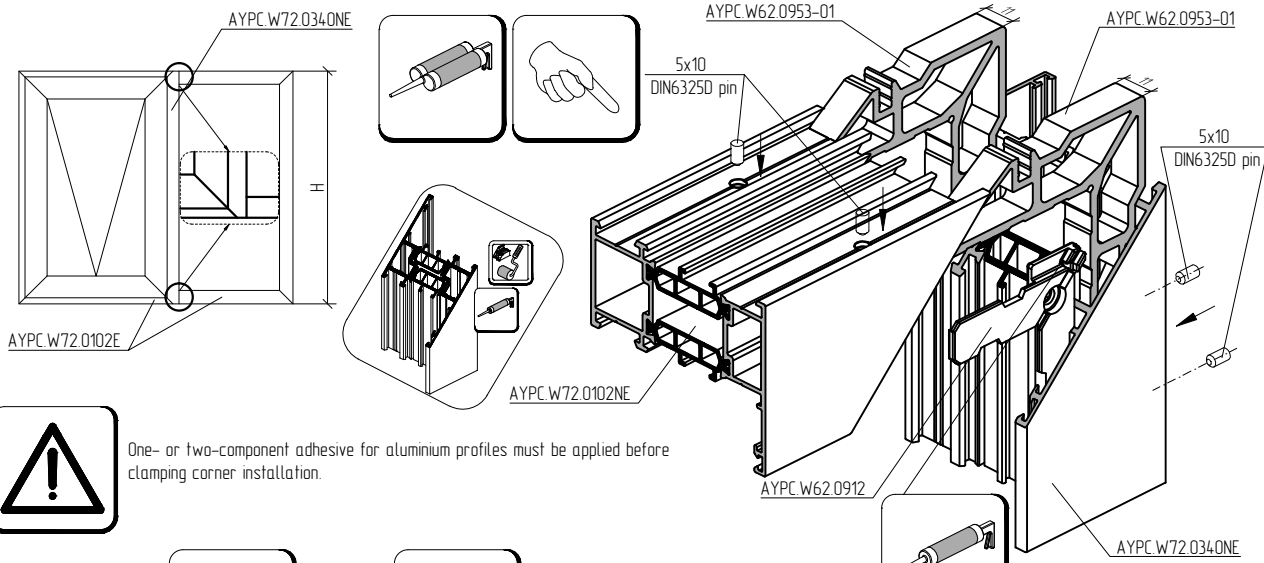


PROFILE PROCESSING

AYPC.W72.0102NE and AYPC.W72.0340NE profiles corner joint by clamping

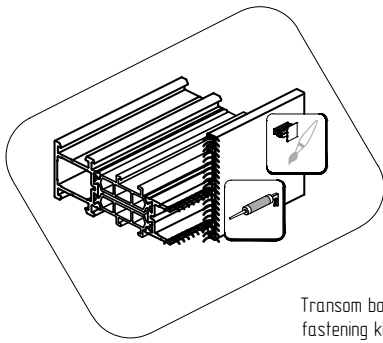


AYPC.W72.0102NE and AYPC.W72.034ONE profiles corner joint by using 5 x10 pins

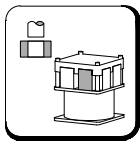


PROFILE PROCESSING

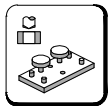
L-connection of frame and transom bar profiles



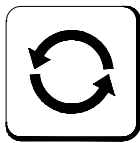
Transom bar fastening kit



PW72.1 step No.8



AYPC.W72.1940



AYPC.W62.0914

AYPC.W62.0913

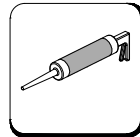
5x8 DIN6325 pin

AYPC.W72.0101E

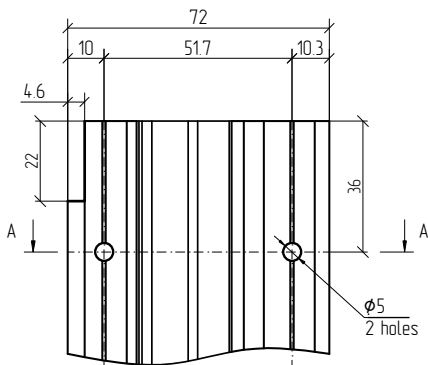
5x8 DIN6325 pin



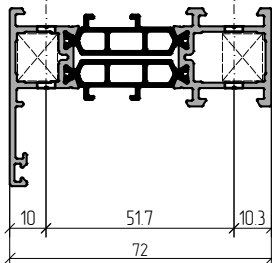
AYPC.W62.0916 foamed support must be aligned with the butt end of transom bar profile.



Frame profile machining scheme

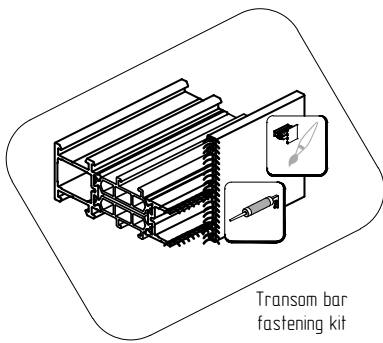


A-A

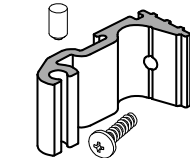
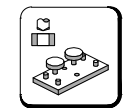


In case of AYPC.W72.0101E installation, 3,9x13 DIN7981 self-tapping screw must be used instead of 3,9x16 DIN7981 self-tapping screw. On the surface of junction silicone sealant must be applied. The sealant structure recommendations are given on the request.

L-connection of frame and transom bar profiles

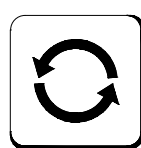
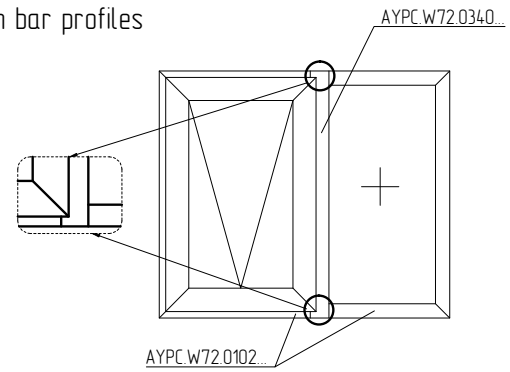
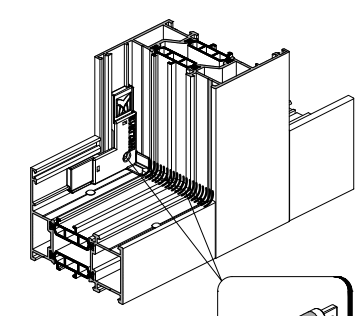


Transom bar fastening kit



PW72.1 step No.8

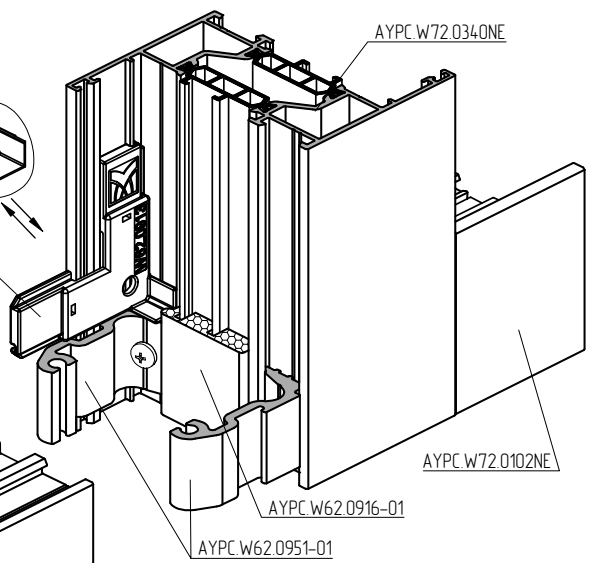
AYPC.W72.1940



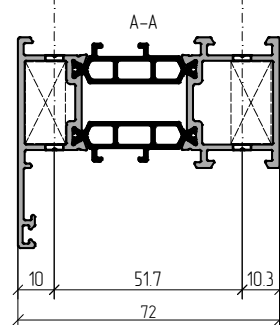
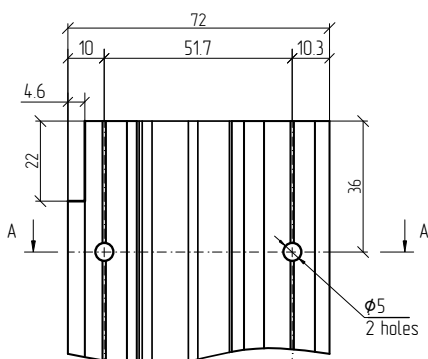
AYPC.W62.0914

AYPC.W62.0913

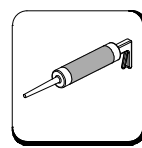
5x10 DIN6325D pin



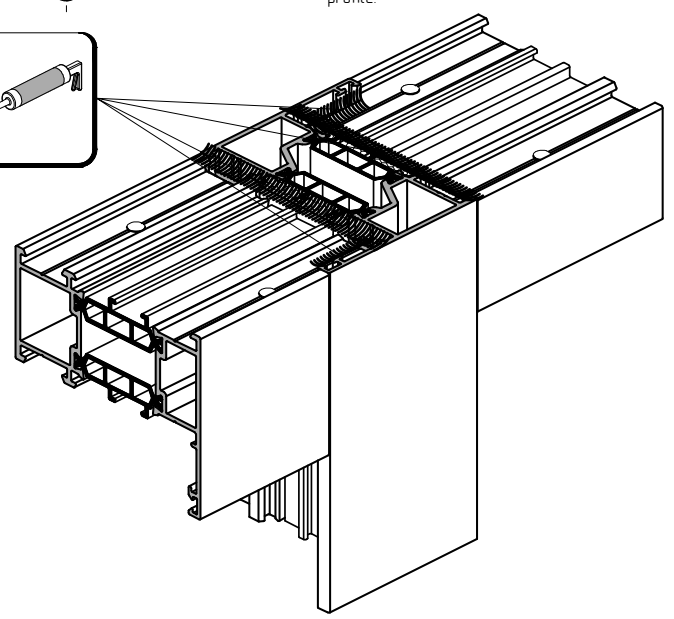
Frame profile machining scheme



AYPC.W62.0916-01 foamed support must be aligned with the butt end of transom bar profile.



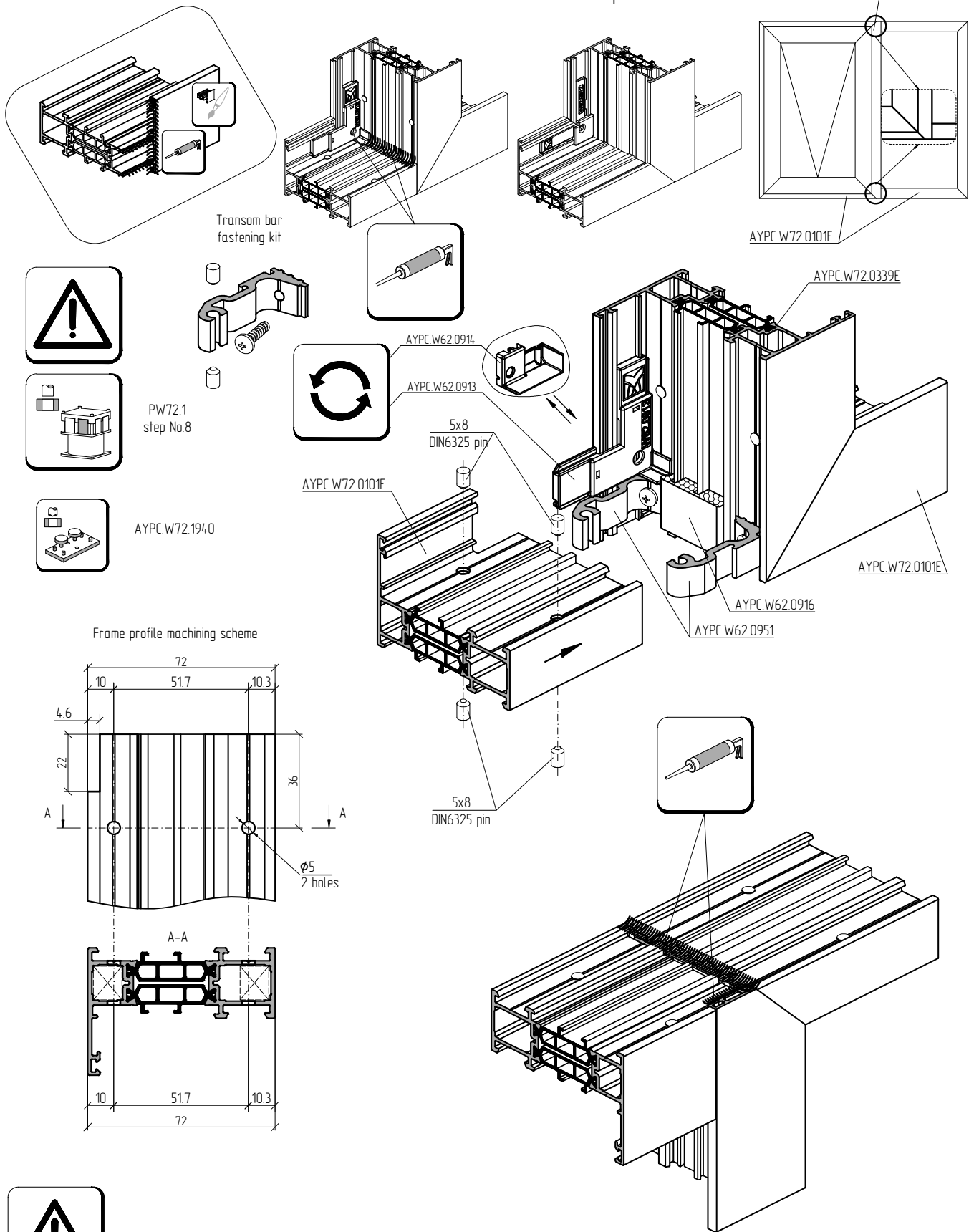
5x10 DIN6325D pin



On the surface of junction silicone sealant must be applied. The sealant structure recommendations are given on the request.

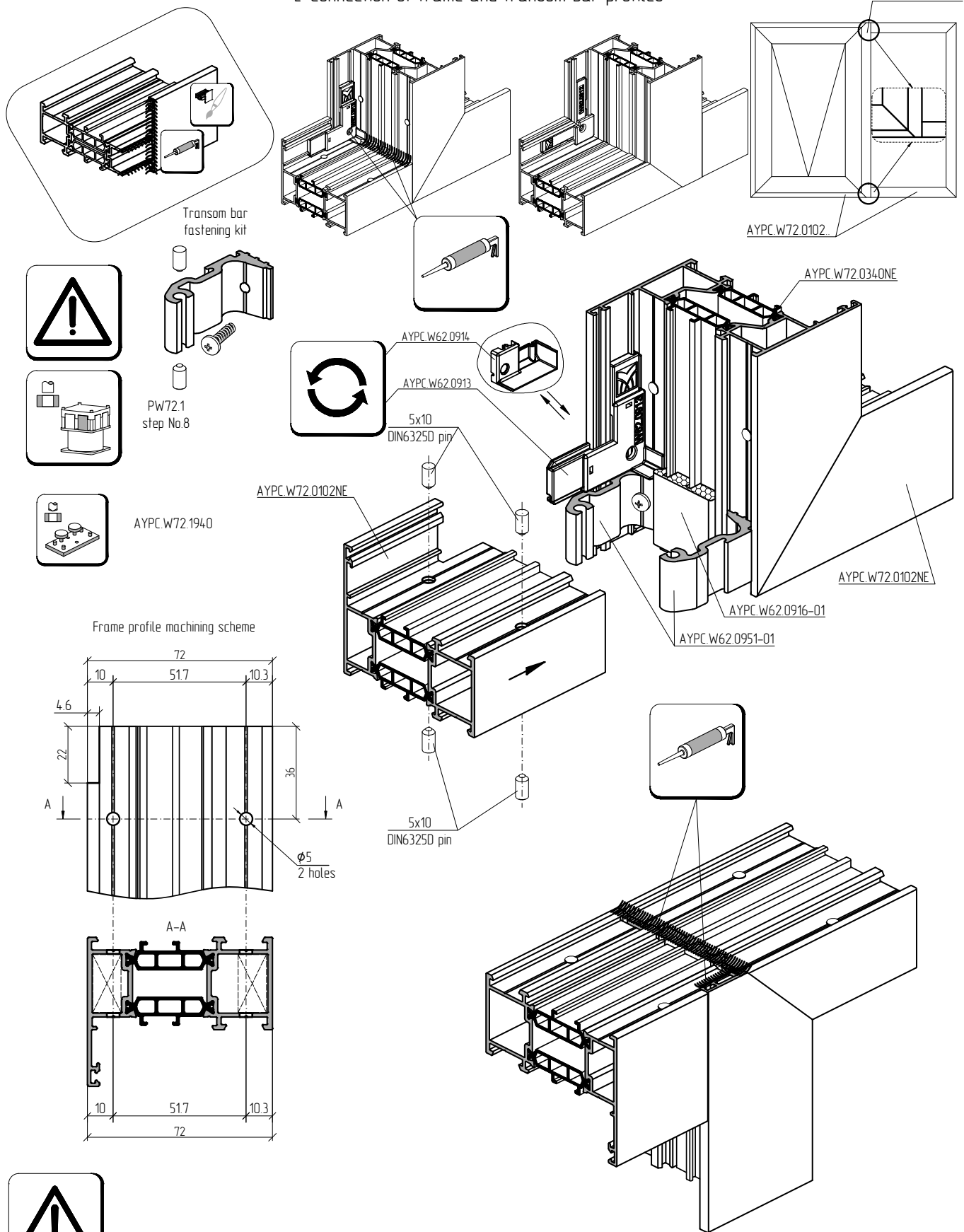
PROFILE PROCESSING

L-connection of frame and transom bar profiles



On the surface of junction silicone sealant must be applied. The sealant structure recommendations are given on the request.

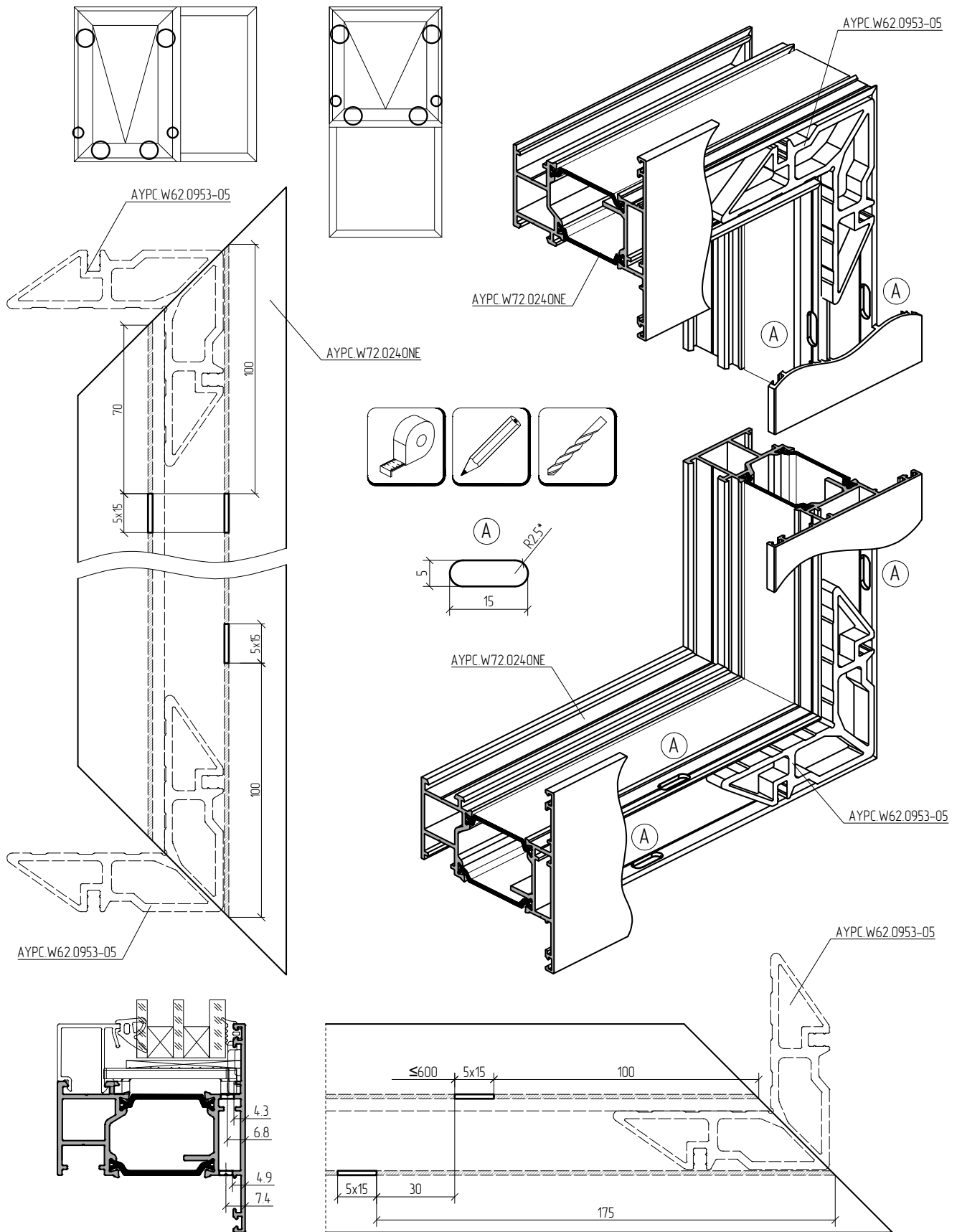
L-connection of frame and transom bar profiles



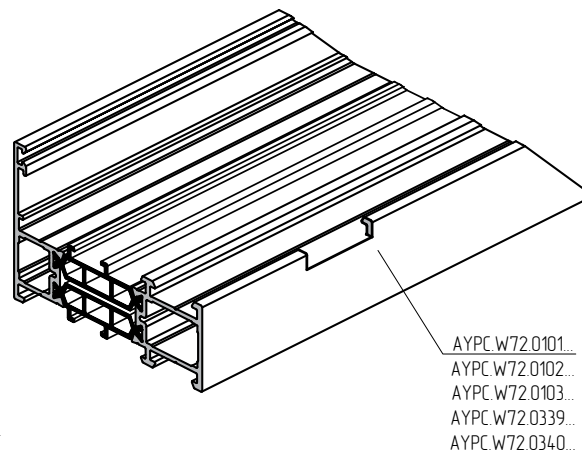
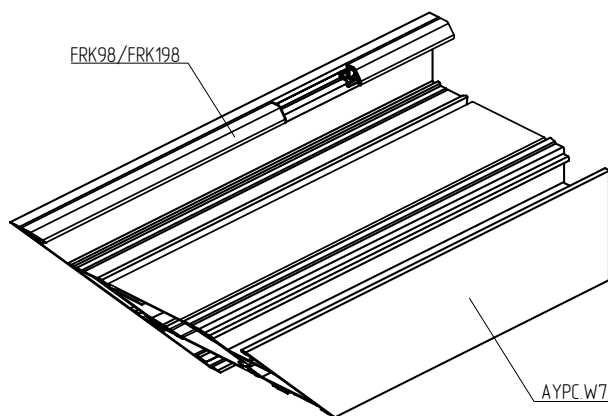
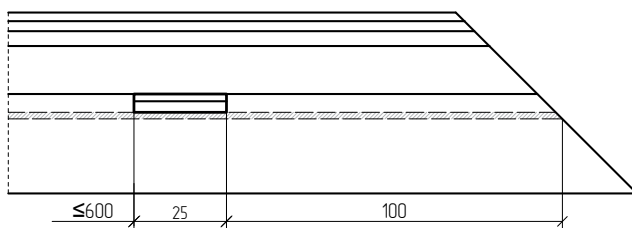
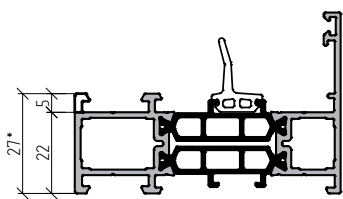
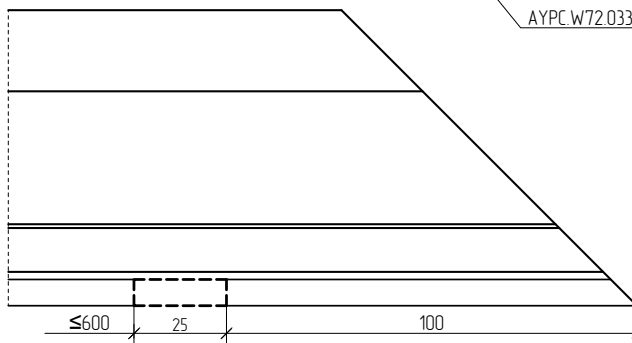
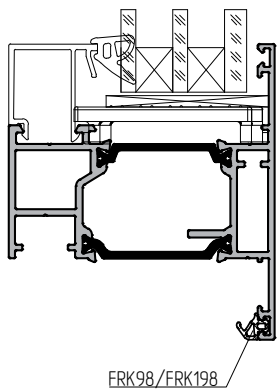
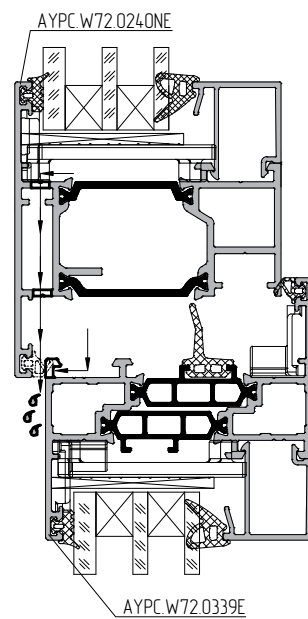
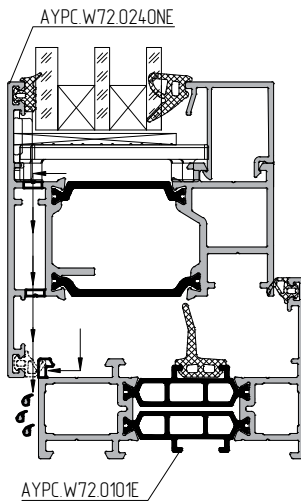
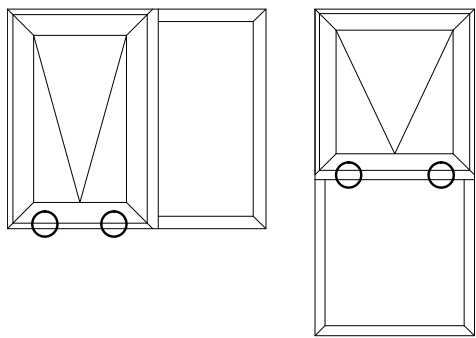
On the surface of junction silicone sealant must be applied. The sealant structure recommendations are given on the request.

PROFILE PROCESSING

Profile machining for ventilation and condensate removal

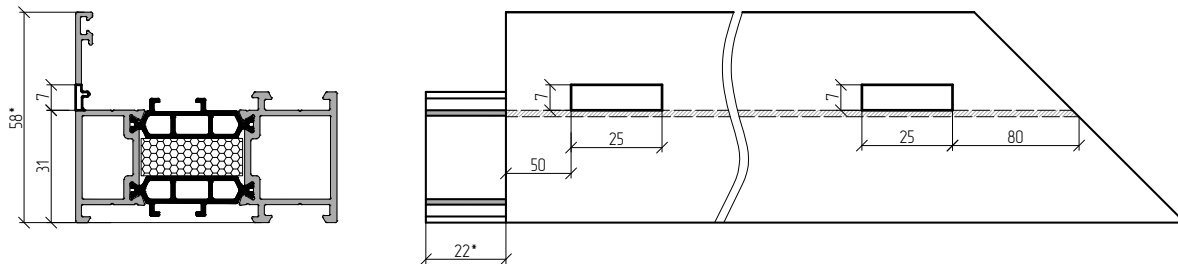
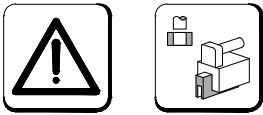
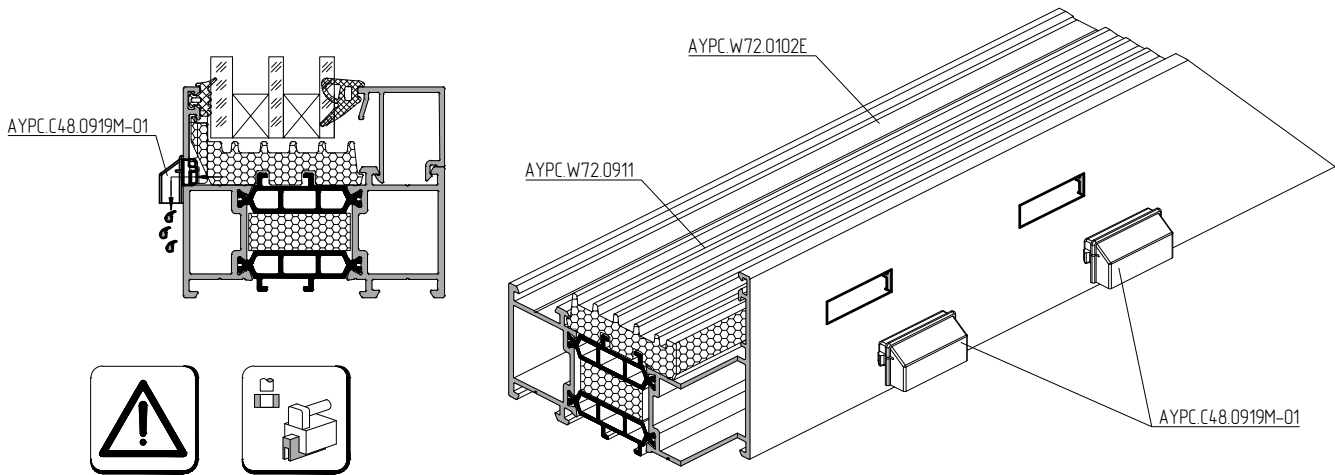
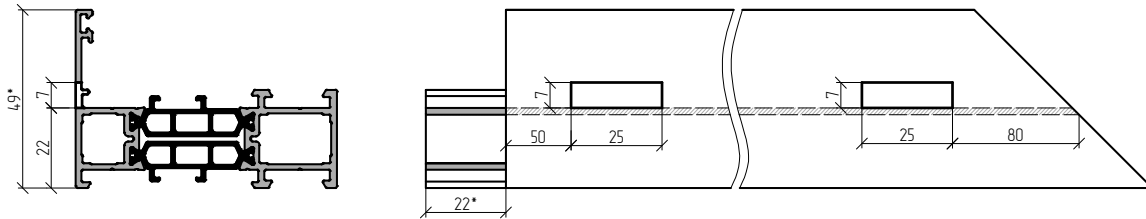
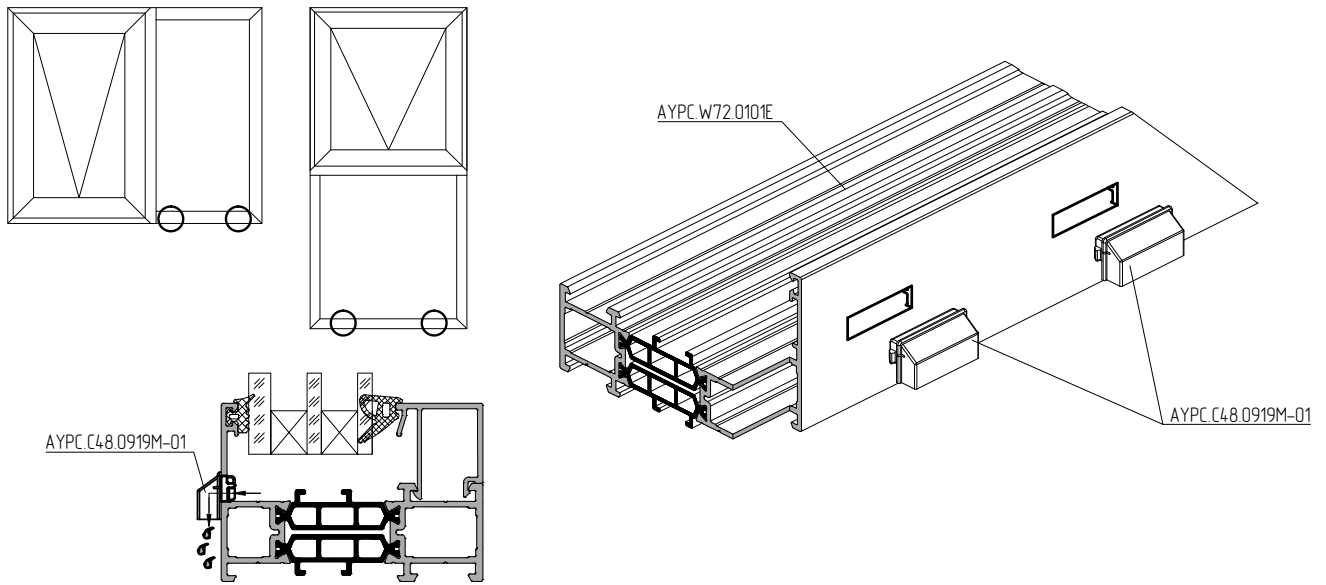


Profile machining for ventilation and condensate removal. Variant 1

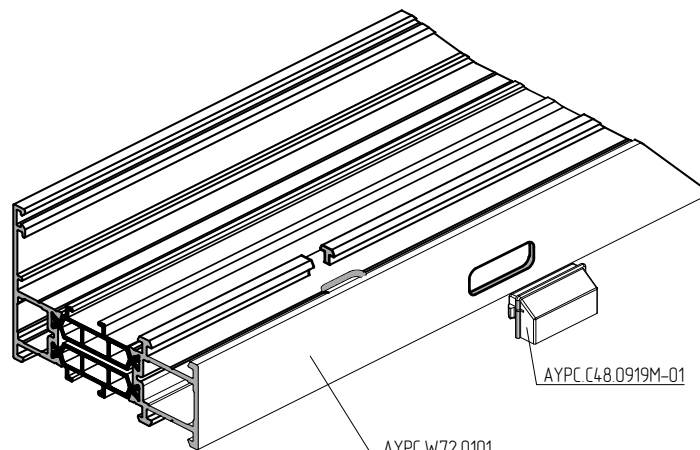
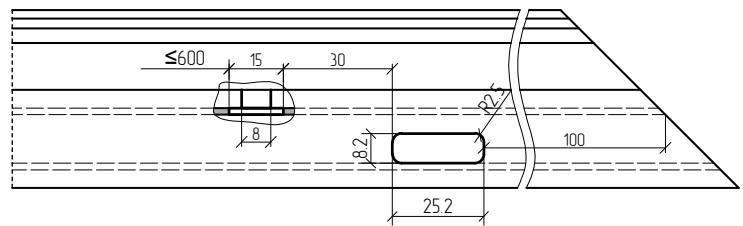
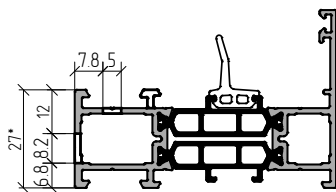
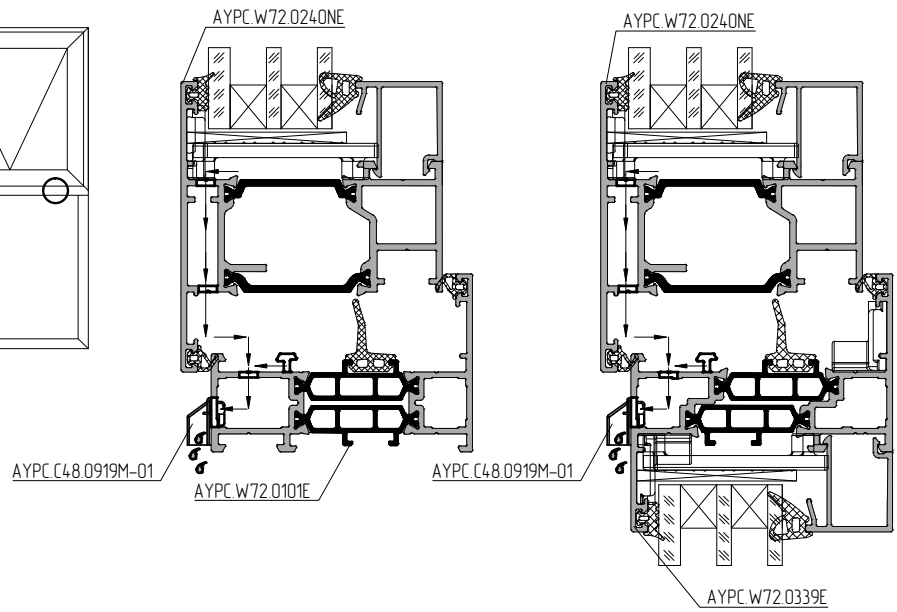
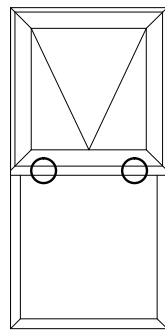
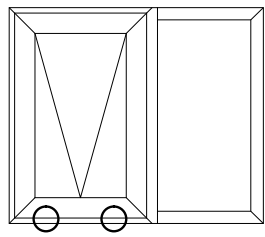


PROFILE PROCESSING

Profile machining for ventilation and condensate removal. Variant 1



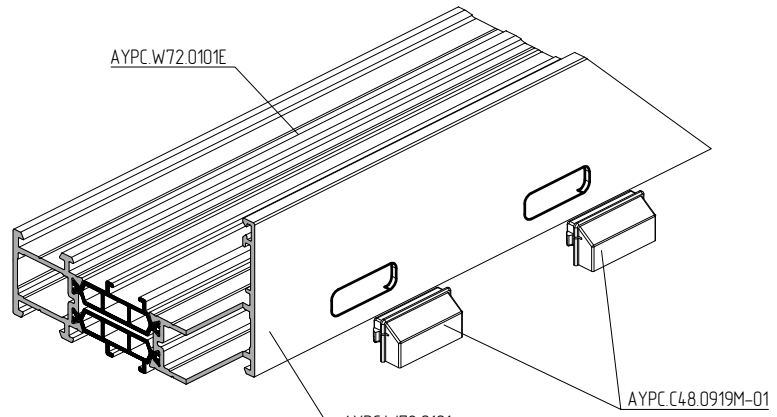
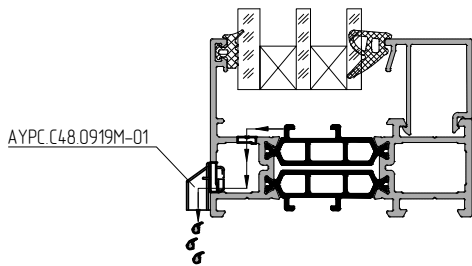
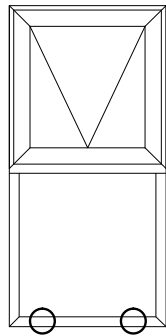
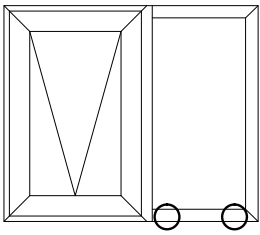
Profile machining for ventilation and condensate removal. Variant 2



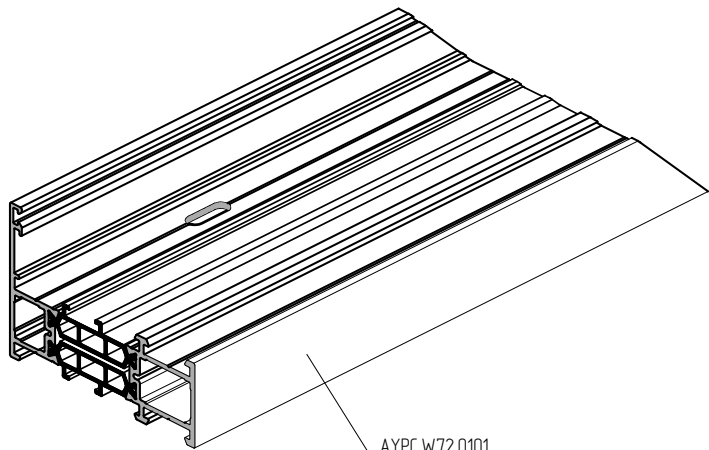
AYPC.W72.0101...
AYPC.W72.0102...
AYPC.W72.0103...
AYPC.W72.0339...
AYPC.W72.0340...

PROFILE PROCESSING

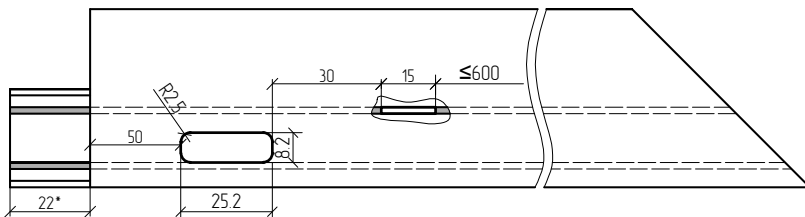
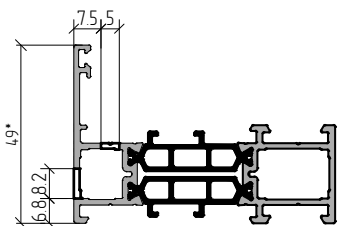
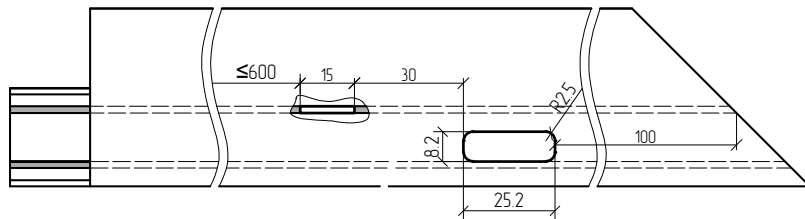
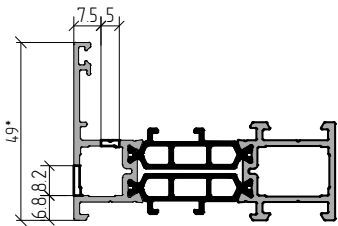
Profile machining for ventilation and condensate removal. Variant 2



- AYPC.W72.0101...
- AYPC.W72.0102...
- AYPC.W72.0103...
- AYPC.W72.0339...
- AYPC.W72.0340...



- AYPC.W72.0101...
- AYPC.W72.0102...
- AYPC.W72.0103...
- AYPC.W72.0339...
- AYPC.W72.0340...





ALUTECH ALTW72 CW

Window system
with thermal break

Standard system calculation

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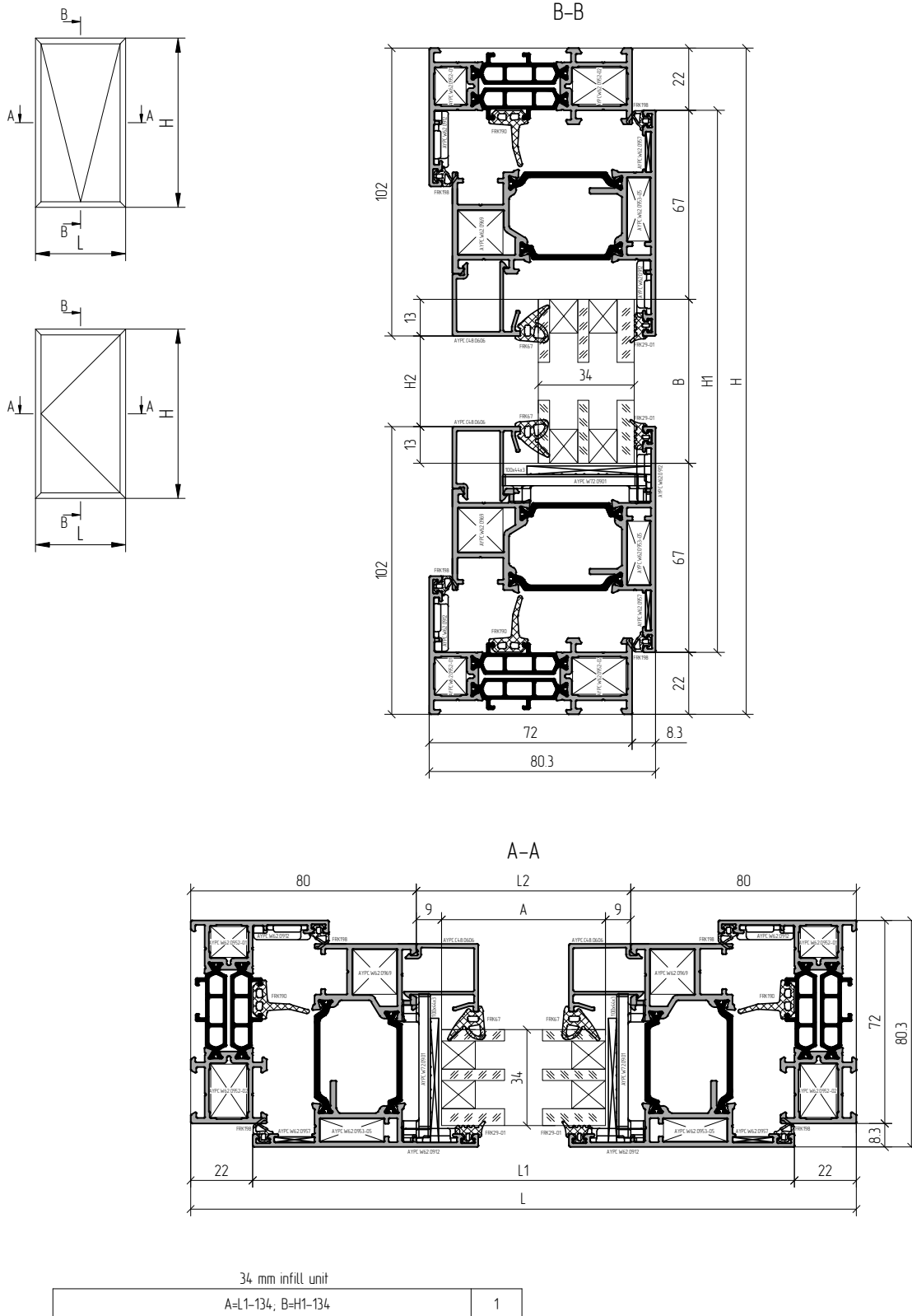
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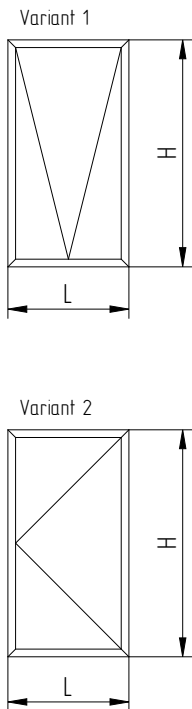
12

STANDARD SYSTEM CALCULATION

Example of top hung and casement window calculation



Example of top hung and casement window calculation



Article	Name	Image		1...
Profile				
AYPC.W72.0101E	Frame profile			L 2
				H 2
AYPC.W72.0240NE	Sash profile			L1=L-44 2
				H1=H-44 2
AYPC.C48.0606	Glass bead profile			L2=L-160 2
				H2=H-204 2

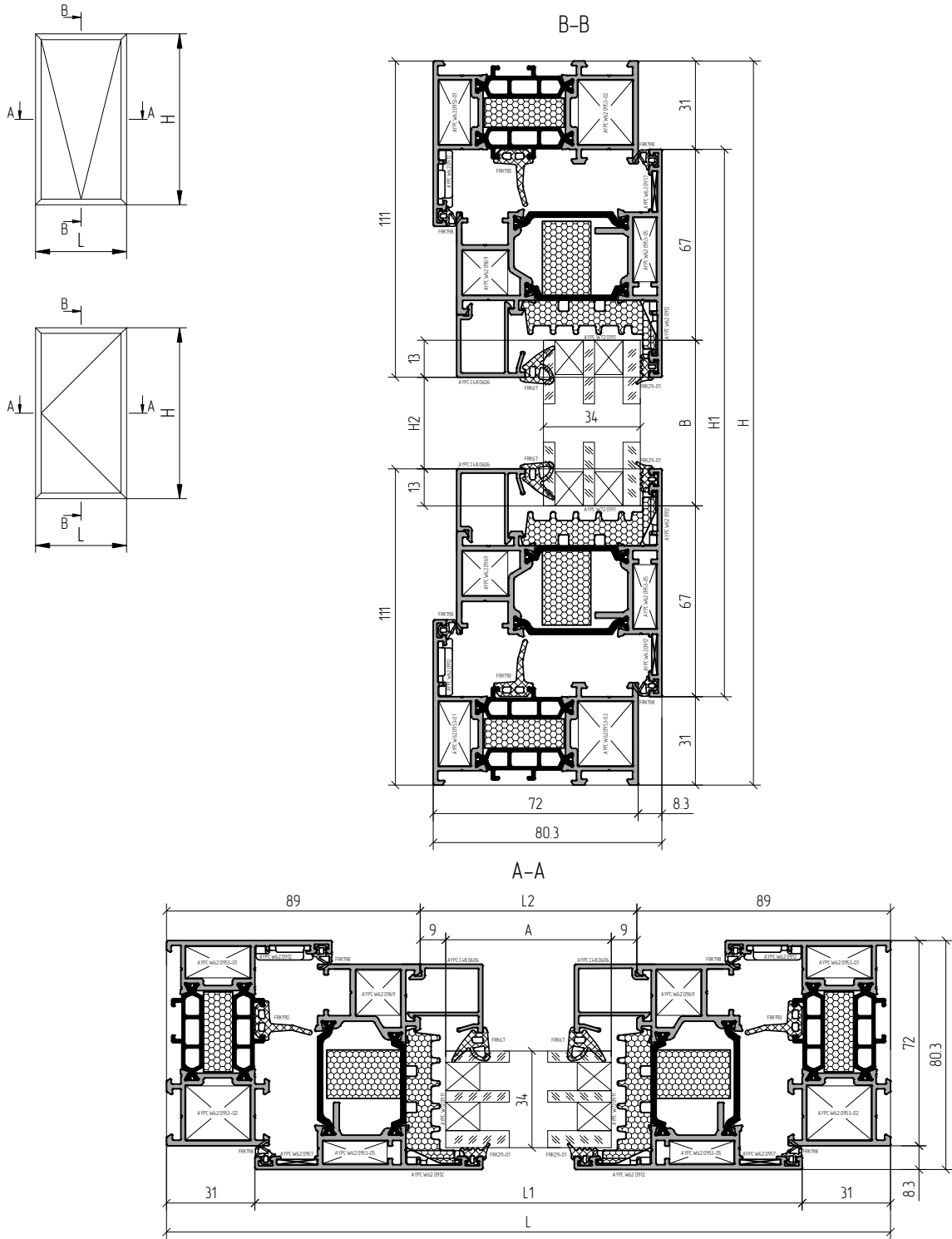
Article	Name	Image		1...	Note
Accessories					
FRK190	Rubber gasket		L1x2+H1x2	1	
FRK29-01	Rubber gasket		Ax2+Bx2	1	
FRK170	Rubber corner			4	
FRK67	Rubber gasket		Ax2+Bx2	1	
FRK198	Rubber gasket		L1x4+H1x4	1	
AYPC.W72.0901	Bearing support			6	Variant 1
AYPC.W72.0901	Bearing support			4	Variant 2
100x44x1(3)	Leveling support			6(6)	Variant 1
100x44x1(3)	Leveling support			4(4)	Variant 2
AYPC.C48.0919M-01	Drain plug			2	
AYPC.W62.0952-01	Clamping corner			4	
AYPC.W62.0952-02	Clamping corner			4	
AYPC.W62.0953-05	Clamping corner			4	
AYPC.W62.0969	Clamping corner			4	
AYPC.W62.0912	Plastic corner			8	
AYPC.W62.0957	Leveling corner			4	



Glass bead profiles and rubber gaskets are chosen in accordance with infill unit thickness (see Section 06 - Glazing table).

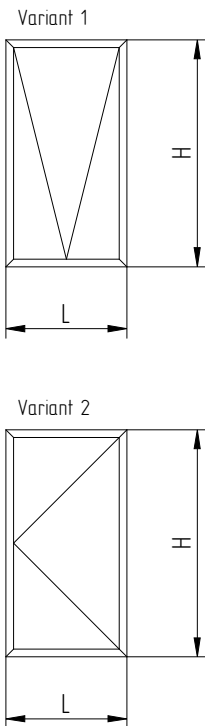
STANDARD SYSTEM CALCULATION

Example of top hung and casement window calculation



34 mm infill unit	
A=L1-134; B=H1-134	1

Example of top hung and casement window calculation



Article	Name	Image		1...
Profile				
AYPC.W72.0102E	Frame profile			L 2
				H 2
AYPC.W72.0240E	Sash profile			L1=L-62 2
				H1=H-62 2
AYPC.C48.0606	Glass bead profile			L2=L-178 2
				H2=H-222 2

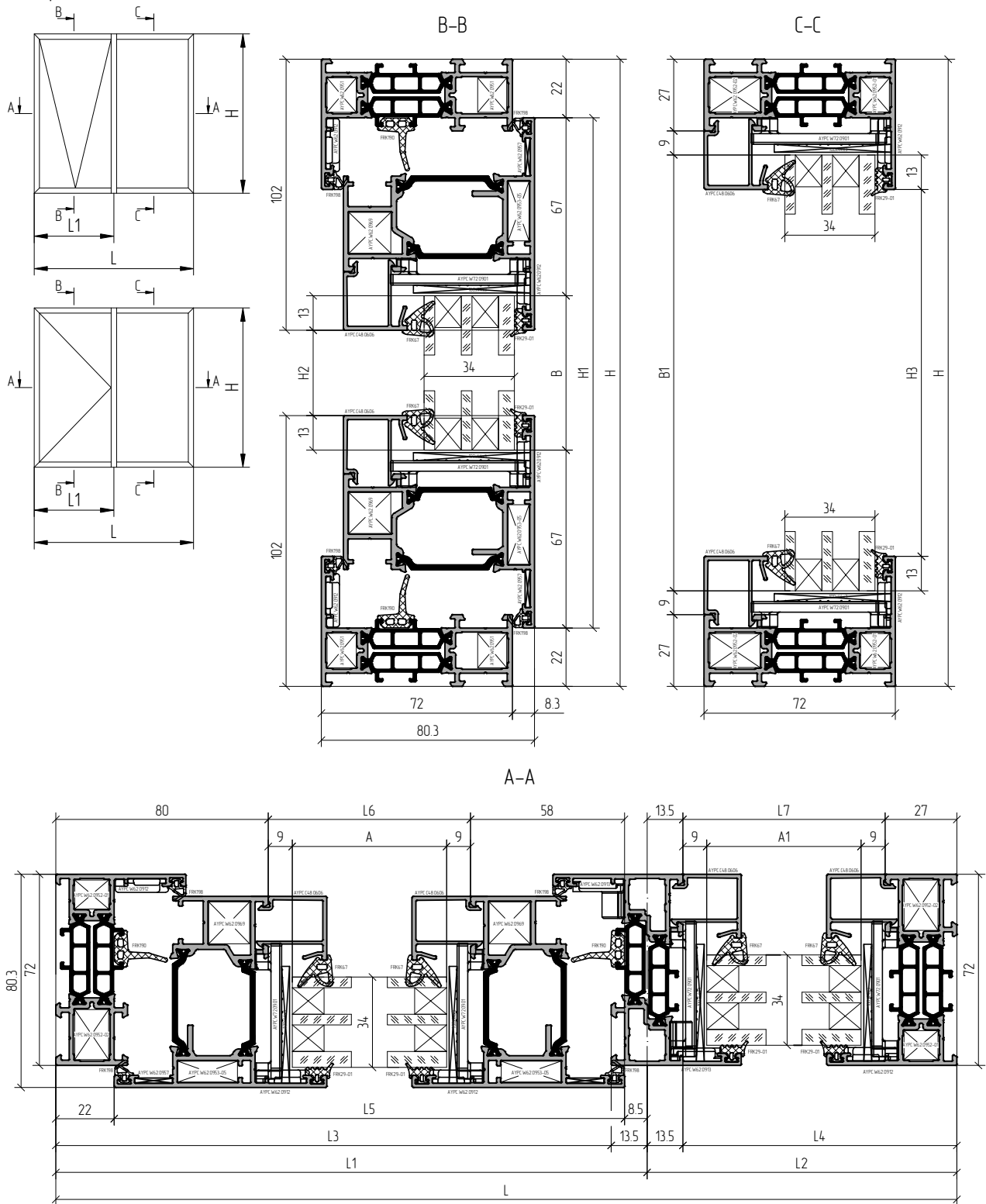
Article	Name	Image		1...	Note
Accessories					
FRK190	Rubber gasket		L1x2+H1x2	1	
FRK29-01	Rubber gasket		Ax2+Bx2	1	
FRK170	Rubber corner			4	
FRK67	Rubber gasket		Ax2+Bx2	1	
FRK198	Rubber gasket		L1x4+H1x4	1	
AYPC.W72.0911	Seam sealing		Ax2+Bx2-6x100*	1	Variant 1
AYPC.W72.0911	Seam sealing		Ax2+Bx2-4x100*	1	Variant 2
AYPC.W72.0901	Bearing support			6	Variant 1
AYPC.W72.0901	Bearing support			4	Variant 2
100x44x13	Leveling support			6(6)	Variant 1
100x44x13	Leveling support			4(4)	Variant 2
AYPC.C48.0919M-01	Drain plug			2	
AYPC.W62.0953-01	Clamping corner			4	
AYPC.W62.0953-02	Clamping corner			4	
AYPC.W62.0953-05	Clamping corner			4	
AYPC.W62.0969	Clamping corner			4	
AYPC.W62.0912	Plastic corner			8	
AYPC.W62.0957	Leveling corner			4	



Glass bead profiles and rubber gaskets are chosen in accordance with infill unit thickness (see Section 06 – Glazing table).
* Quantity of the removed AYPC.W72.0911 seam sealing depends on the type of window opening and number of bearing supports installed.

STANDARD SYSTEM CALCULATION

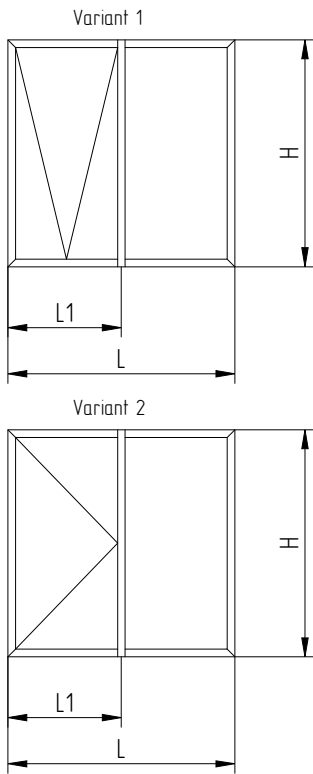
Example of combined window calculation



34 mm infill unit

A=L5-134, B=H1-134	1
A1=L2-58,5, B1=H-72	1

Example of combined window calculation



Article	Name	Image		1...	
Profile					
AYPC.W72.0101E	Frame profile			L3=L1-13,5	1
				L3=L1-13,5	1
				L4=L2-13,5	1
				L4=L2-13,5	1
				H	2
AYPC.W72.0240NE	Sash profile			L5=L1-30,5	2
				H1=H-44	2
AYPC.W72.0339E	Transom bar profile			H	1
AYPC.C48.0606	Glass bead profile			L6=L5-116	2
				H2=H1-160	2
				L7=L2-40,5	2
				H3=H-98	2

Article	Name	Image		1...	Note
Accessories					
FRK190	Rubber gasket		L5x2+H1x2	1	
FRK29-01	Rubber gasket		(A+B)x2+(A1+B1)x2	1	
FRK170	Rubber corner			8	
FRK67	Rubber gasket		(A+B)x2+(A1+B1)x2	1	
FRK198	Rubber gasket		L5x4+H1x4	1	
AYPC.W72.0901	Bearing support			10	Variant 1
AYPC.W72.0901	Bearing support			8	Variant 2
100x44x1(3)	Leveling support			10(10)	Variant 1
100x44x1(3)	Leveling support			8(8)	Variant 2
AYPC.C48.0919M-01	Drain plug			4	
AYPC.W62.0952-01	Clamping corner			4	
AYPC.W62.0952-02	Clamping corner			4	
AYPC.W62.0953-05	Clamping corner			4	
AYPC.W62.0969	Clamping corner			4	
AYPC.W62.0951	Transom fixing element			8	
AYPC.W62.0916	Foamed support			4	
AYPC.W62.0912	Plastic corner			8	
AYPC.W62.0913	Plastic corner			4	
AYPC.W62.0957	Leveling corner			4	



Glass bead profiles and rubber gaskets are chosen in accordance with infill unit thickness (see Section 06 - Glazing table).



ALUTECH ALTW72 CW

Window system
with thermal break

Statics

01

02

03

04

05

06

07

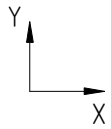
08

09

10

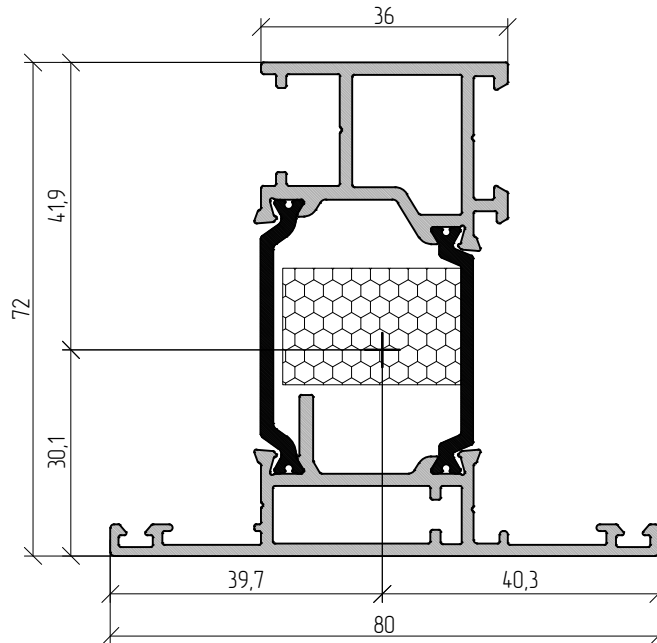
11

12

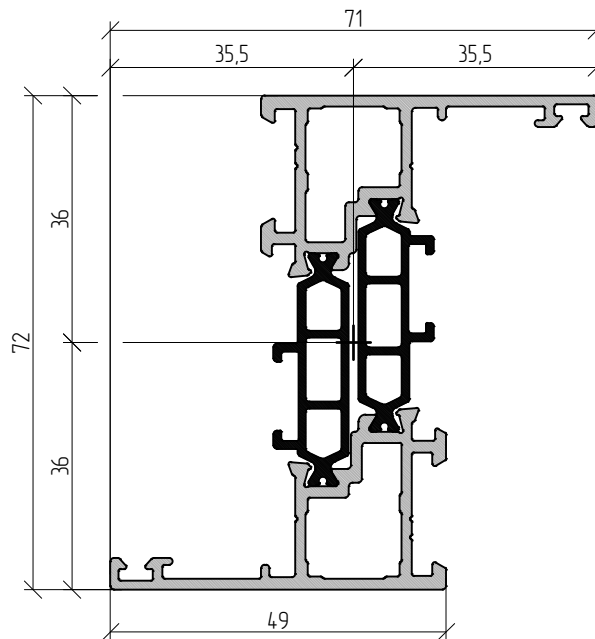


Profile geometry data

AYPC.W72.0240E

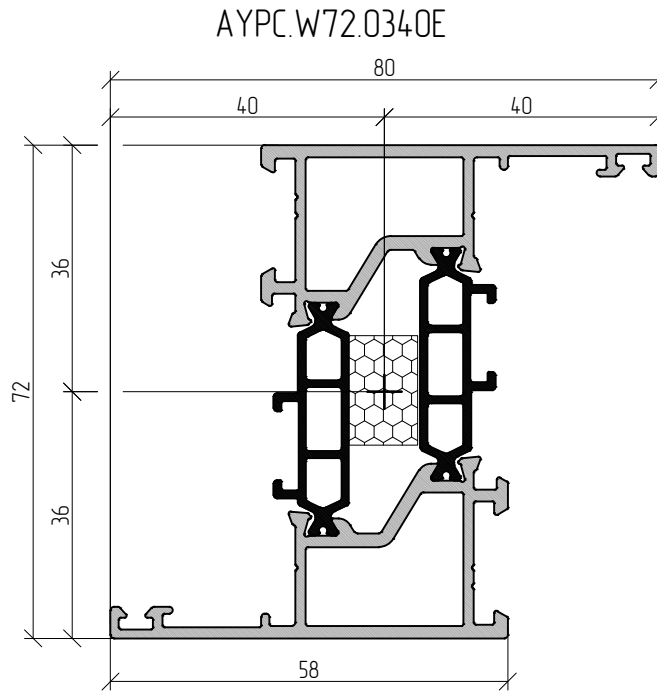
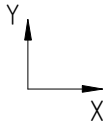


AYPC.W72.0339E



Profile	t, kg/rm	S, mm ²	Jx, sm ⁴	Wx, sm ³	ax, mm	Jy, sm ⁴	Wy, sm ³	ay, mm
AYPC.W72.0240E	167	699.8	30.6	10.2	30.1	14.2	3.5	40.3
AYPC.W72.0339E	150	665.2	26.4	7.3	36.0	8.5	2.4	35.5

STATICS



Profile	t, kg/rm	S, mm ²	Jx, sm ⁴	Wx, sm ³	ax, mm	Jy, sm ⁴	Wy, sm ³	ay, mm
AYPC.W72.0340E	170	736.0	30.4	85	36.0	13.7	3.4	40.0



ALUTECH ALTW72 CW

Window system
with thermal break

Hardware

01

02

03

04

05

06

07

08

09

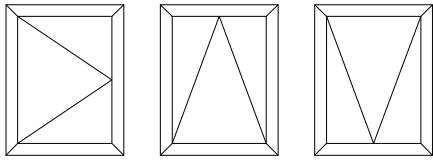
10

11

12

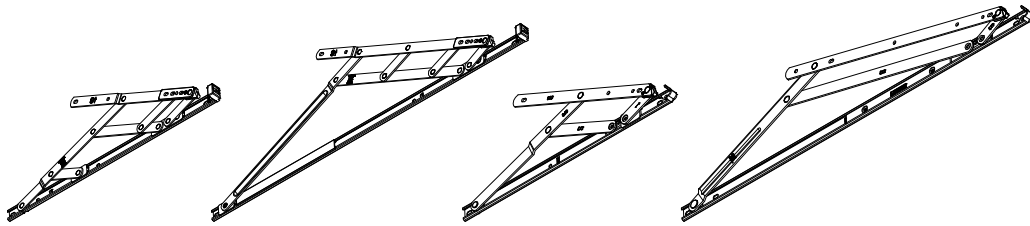
Exterior opening window hardware

Standard systems

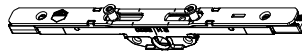


Exterior opening window hardware kit includes:

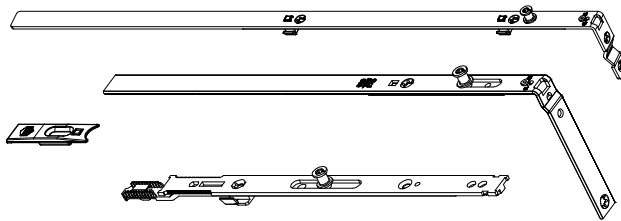
1. Securistyle friction hinges for exterior opening windows Side hung and Top hung (Defender, Sterling, Storm)



2. Basket 20 mm (MACO) (D-20)



3. MACO shootbolt extensions

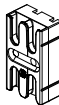


4. MACO shootbolt center locks



5. MACO striker plate

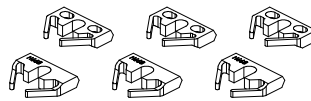
371913



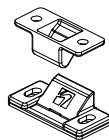
371914



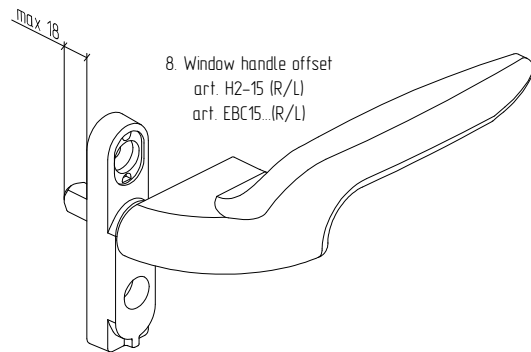
6. GIESSE 01974 friction hinges support



7. Commercial pull in blocks Securistyle CPB1

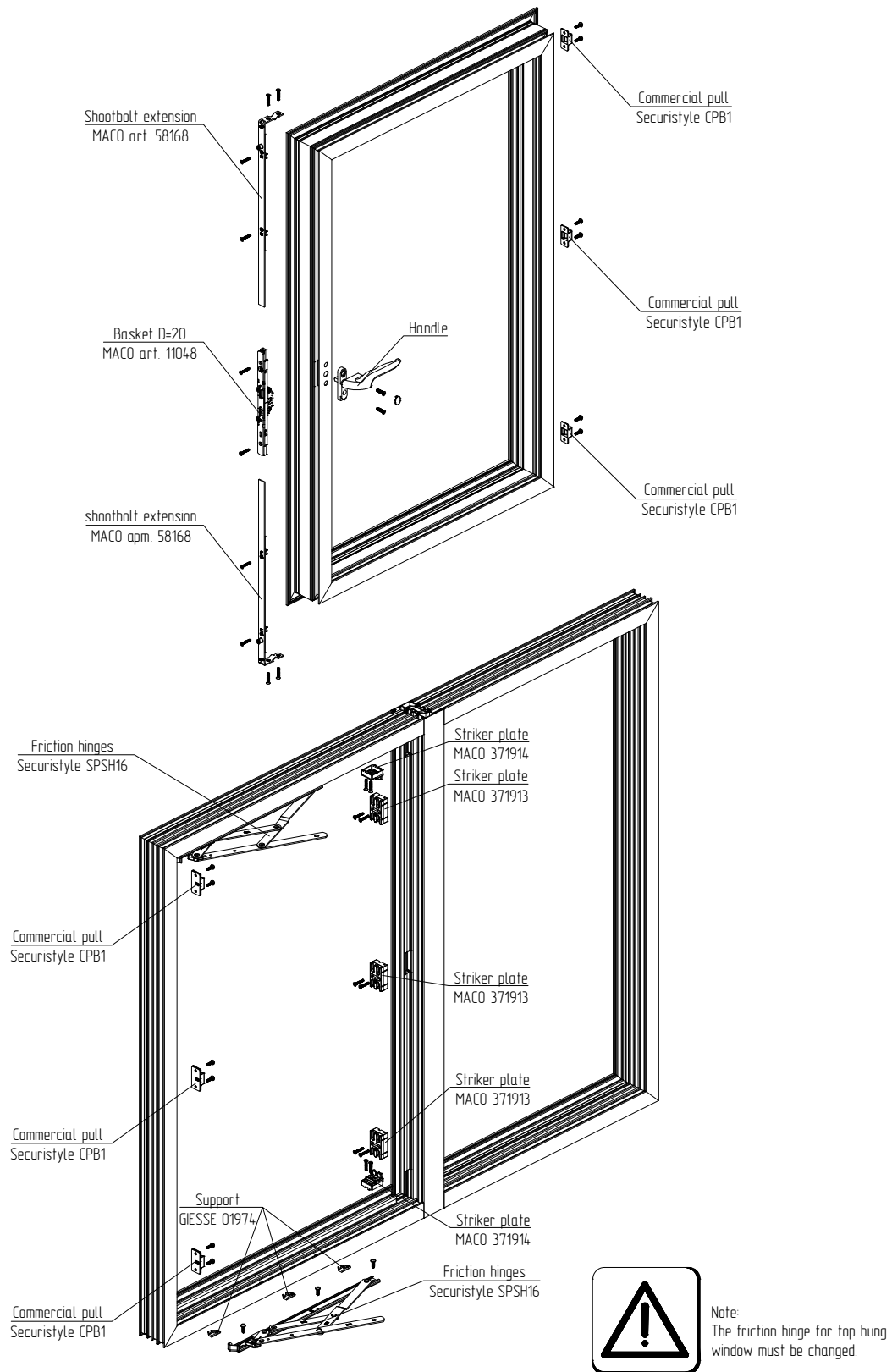


8. Window handle offset
art. H2-15 (R/L)
art. EBC15...(R/L)

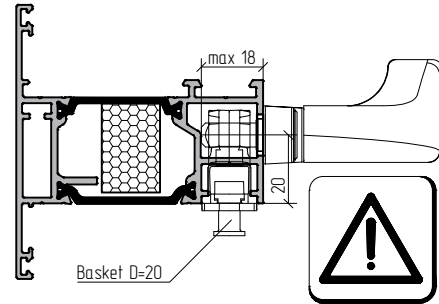
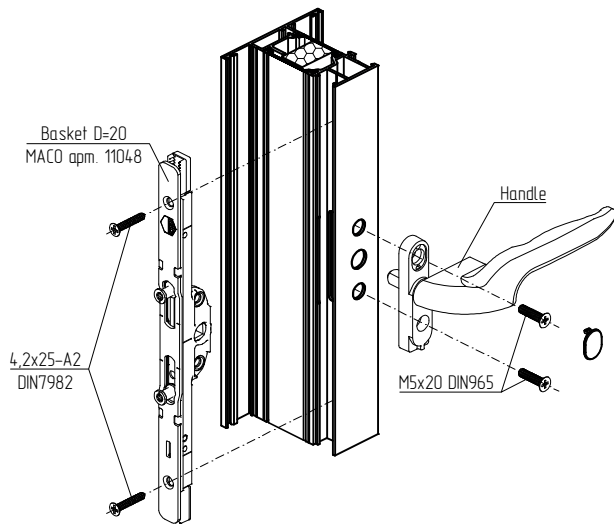


HARDWARE

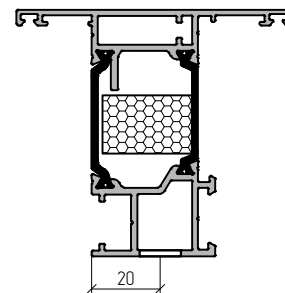
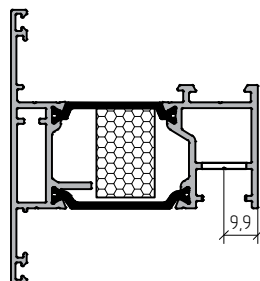
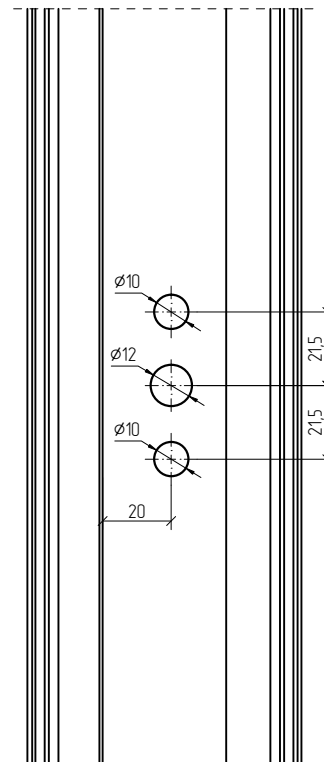
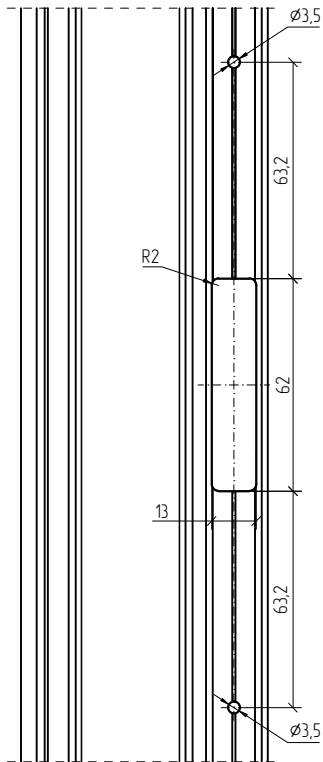
Example of exterior opening casement window hardware kit (Side hung)



Sash profile machining for basket and handle installation



Dornmass - 20 mm.
Before handle installation cut the quadrate till the indicated length if necessary



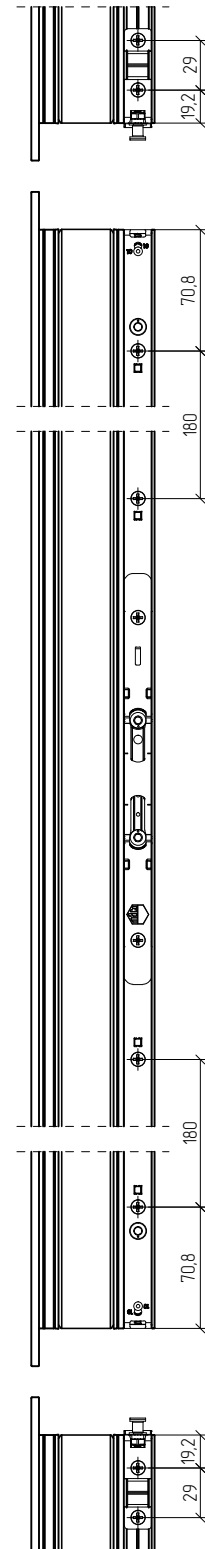
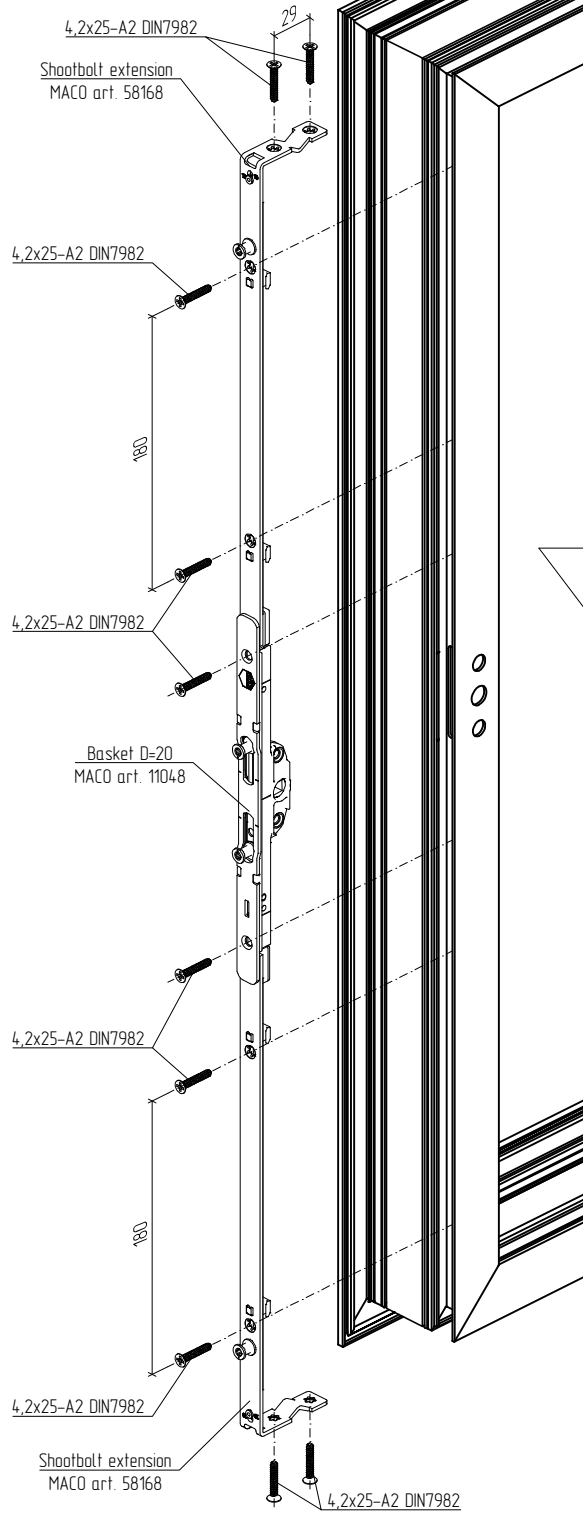
Machining dimensions may vary depending on the type and on the hardware manufacturer

HARDWARE

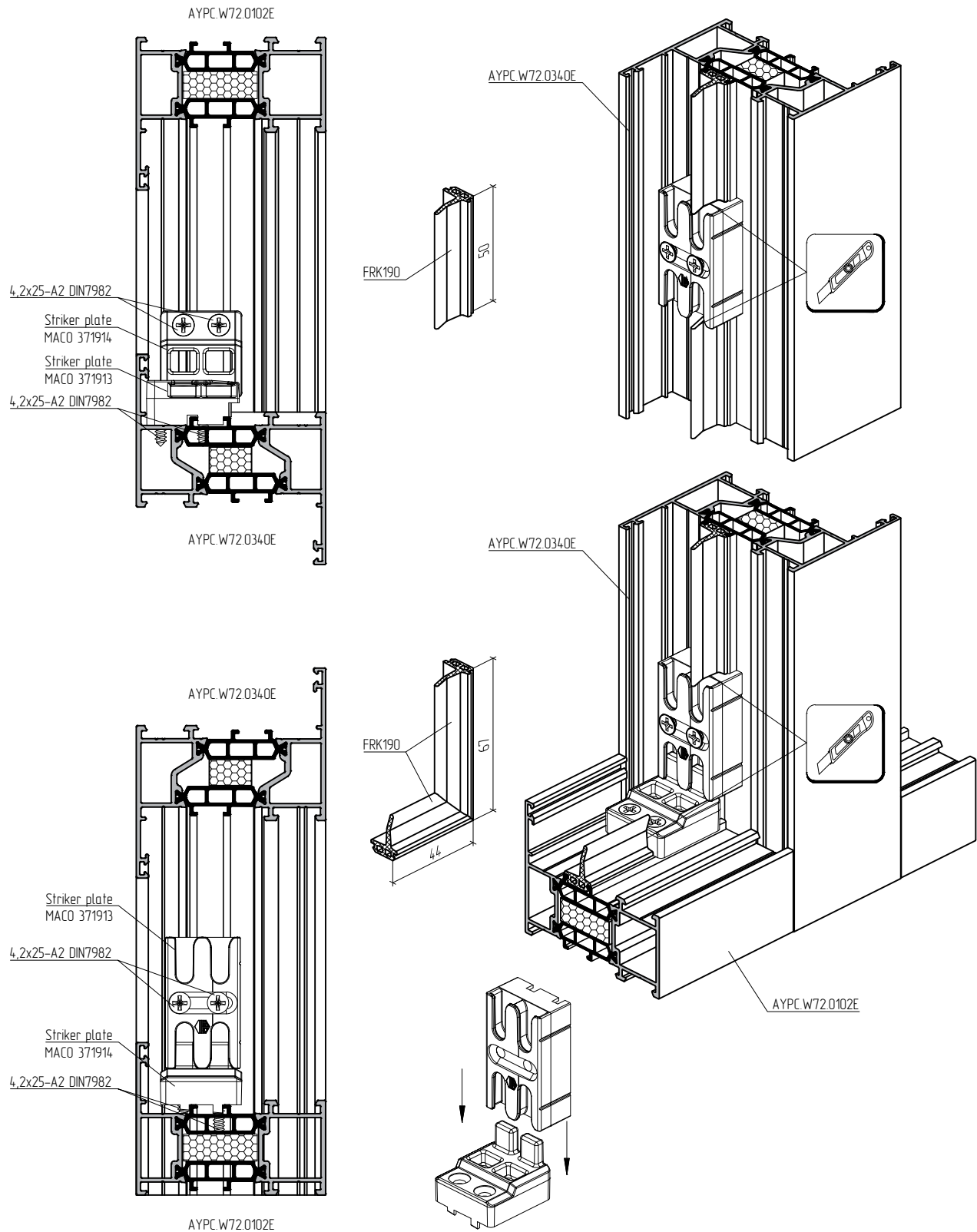
Shootbolt extensions installation on the sash



Machining dimensions could differ depending on the type and on the hardware manufacturer

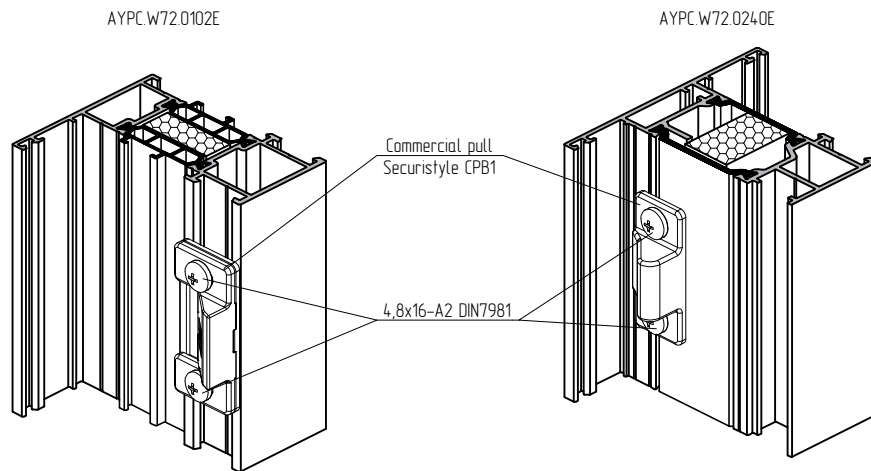


Striker plates installation on the window unit

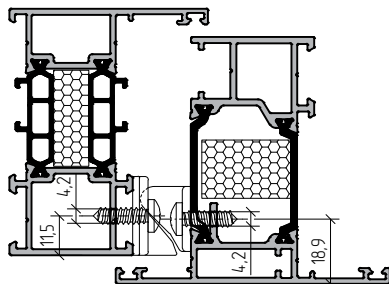


HARDWARE

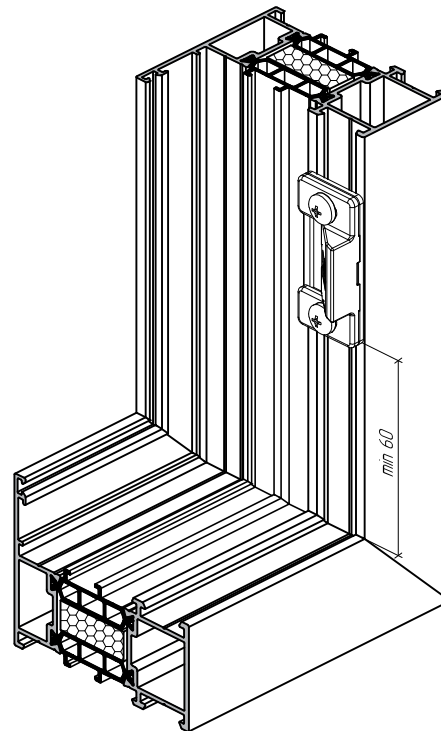
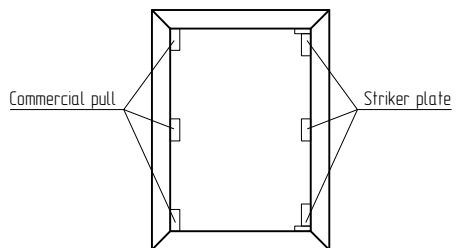
Commercial pull in blocks installation on the frame and on the sash



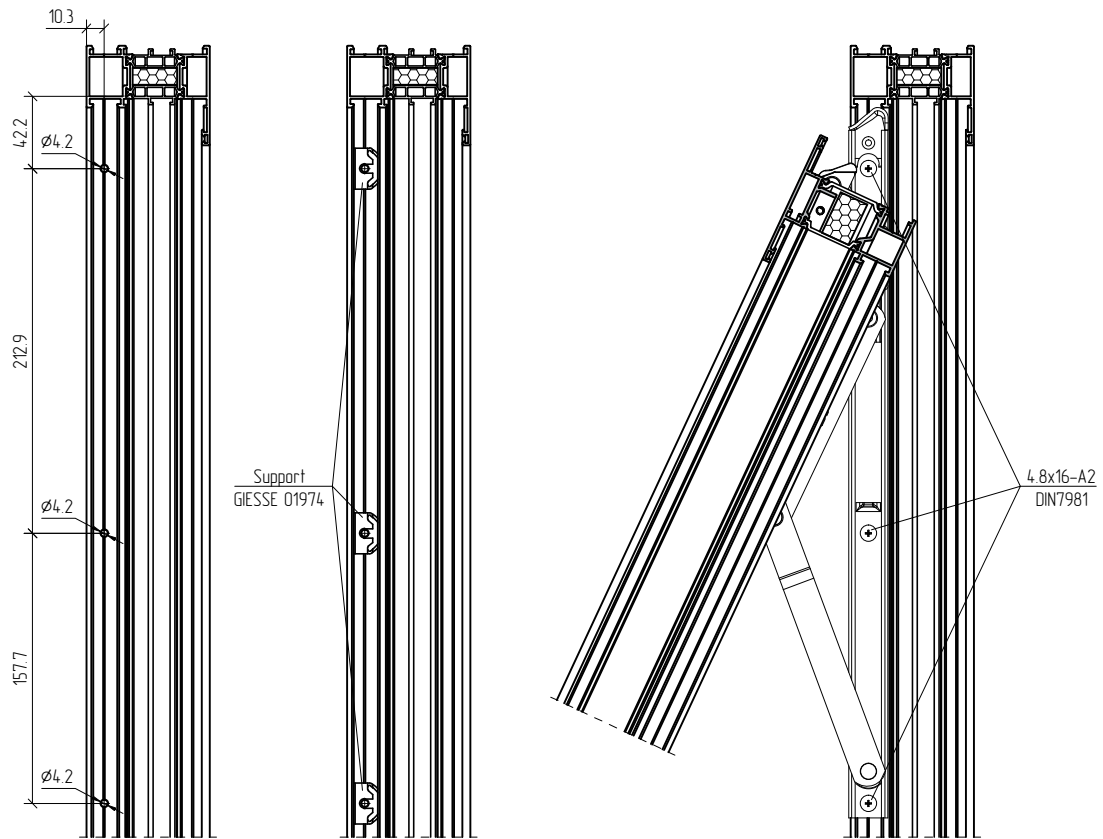
Frame and sash profile machining for 4,8x16-A2 DIN7981



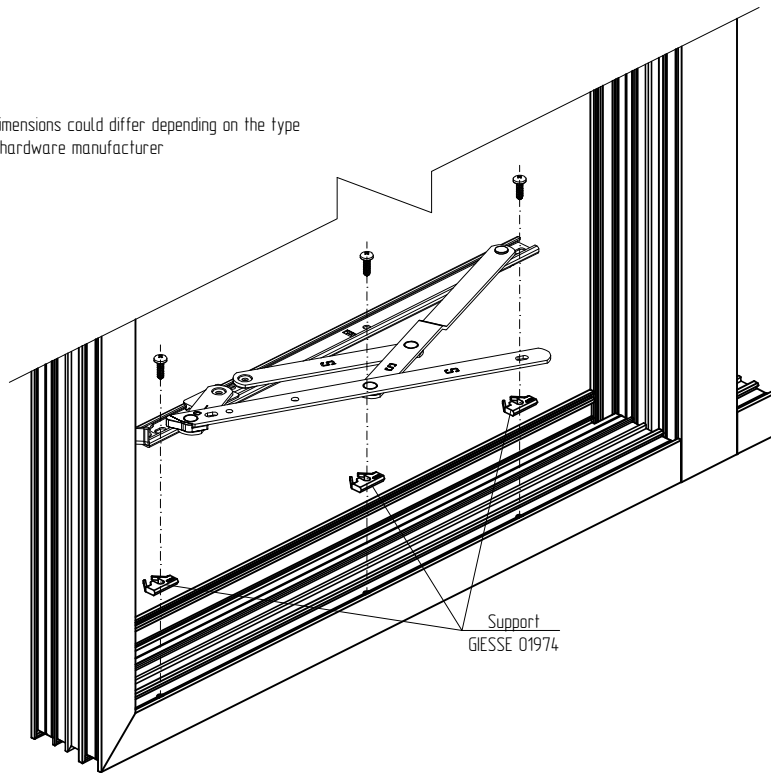
Commercial pull in blocks allocation scheme



Frame profile machining for Securistyle SPSH16 friction hinges installation

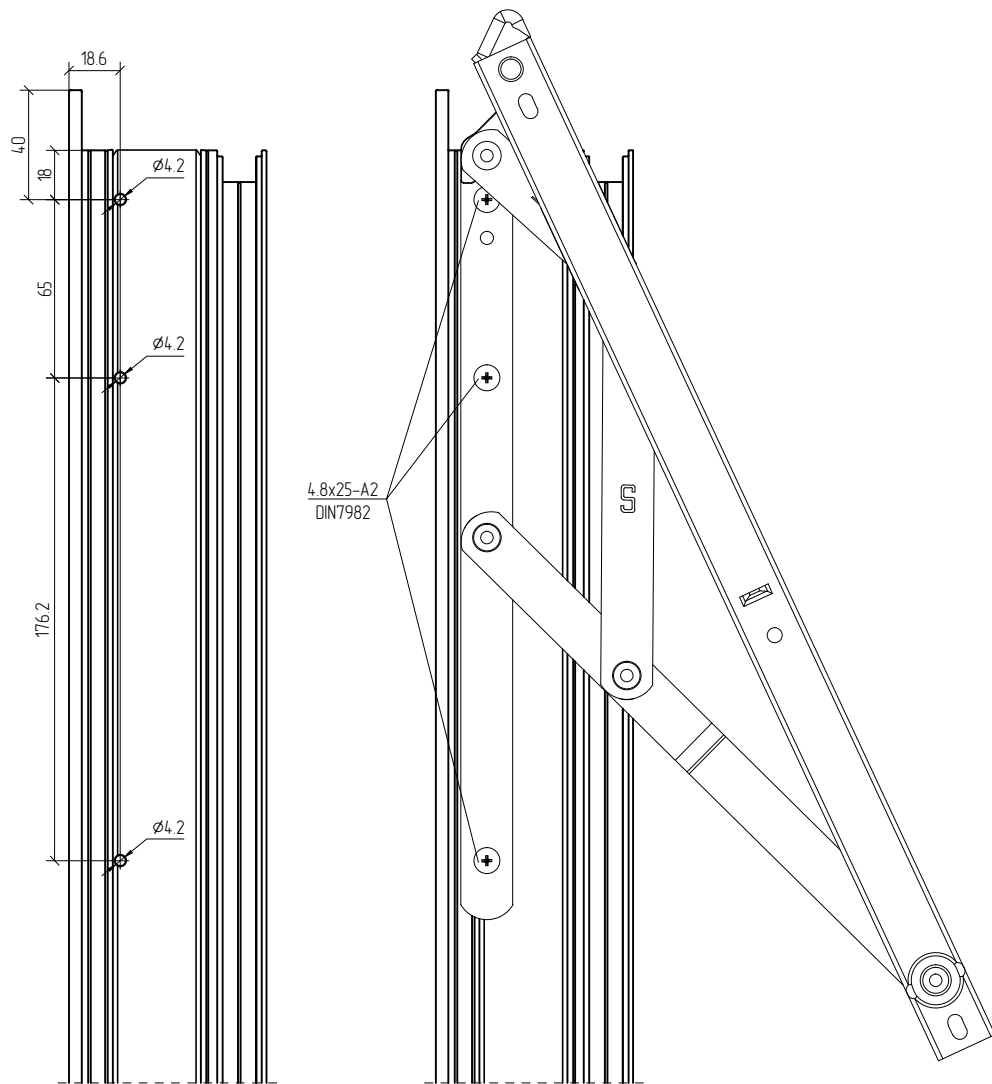


Machining dimensions could differ depending on the type and on the hardware manufacturer

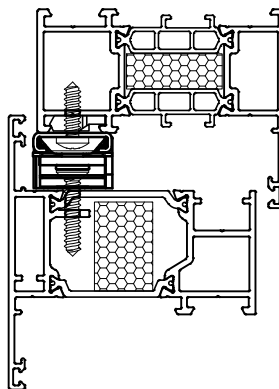


HARDWARE

Sash profile machining for Securistyle SPSH16 friction hinges installation



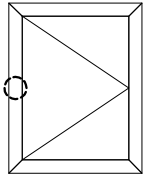
Window friction hinges installation



Machining dimensions could differ depending on the type and on the hardware manufacturer

Hardware for exterior opening window

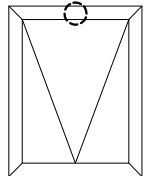
Kit A (Side Hung (H) / Top Hung (L))



Side Hung

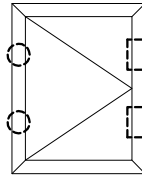
- pos.1 - Basket 20 mm (MACO) - art.11048 - 1 pcs.
- pos.6 - Mushroom blanking plate (MACO) -art. 371913 - 3 pcs.
- pos.7 - Shootbolt striker plate (MACO) - art. 371914 - 2 pcs.
- pos.9 - Friction hinges support (Giesse)- art. 01974 - 1 pcs.
- pos.10 - Window handle offset - art. H2-15 (R/L) - 1 pcs.
320..800mm

- pos.2 - Shootbolt extensions (MACO) (by matching):
- art. 58177 - size 0 (320-400) - 2 pcs.
- art. 58161 - size 1 (401-800) - 2 pcs.
- pos.8 - Commercial pull in blocks (Securistyle) - art. CPB1 - 2 pcs.
801..1400mm
- pos.2 - Shootbolt extensions (MACO) (by matching):
- art. 58168 - size 2 (801-1100) - 2 pcs.
- art. 58169 - size 3 (1101-1400) - 2 pcs.
- pos.8 - Commercial pull in blocks (Securistyle) - art. CPB1 - 3 pcs.



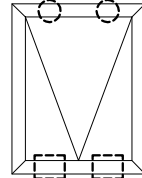
Top Hung

Kit B (Side Hung (H) / Top Hung (L))



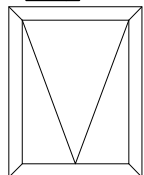
Side Hung

- pos.1 - Basket 20 mm (MACO) - art.11048 - 1 pcs.
- pos.7 - Shootbolt striker plate (MACO) - art. 371914 - 2 pcs.
- pos.9 - Friction hinges support (Giesse)- art. 01974 - 1 pcs.
- pos.10 - Window handle offset - art. H2-15 (R/L) - 1 pcs.
- pos.3 - Extension 250 mm (MACO) - art. 101530 - 2 pcs.
- pos.2 - Extension (MACO) (by matching):
- art. 58168 - size 2 (1401-1600) - 2 pcs.
- art. 58169 - size 3 (1601-1900) - 2 pcs.
- pos.6 - Mushroom blanking plate (MACO) - art. 371913 - 5 pcs.
- pos.8 - Commercial pull in blocks (Securistyle) - art. CPB1 - 5 pcs.



Top Hung

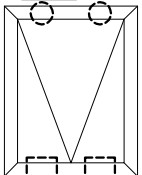
Kit C



Top Hung

- pos.1 - Basket 20 mm (MACO) - art.11048 - 1 pcs.
- pos.5 - Shootbolt center locks (MACO) (by matching):
- art. 220036 - size 0 (1100-1300) - 2 pcs.
- art. 220037 - size 1 (1301-1500) - 2 pcs.
- pos.6 - Mushroom blanking plate (MACO) - art. 371913 - 5 pcs.
- pos.7 - Shootbolt striker plate (MACO) - art. 371914 - 2 pcs.
- pos.9 - Friction hinges support (Giesse)- art. 01974 - 1 pcs.
- pos.10 - Window handle offset - art. H2-15 (R/L) - 1 pcs.
L=500..800mm
- pos.4 - Shootbolt extensions (MACO) - art. 220232 - 2 pcs.
- pos.8 - Commercial pull in blocks (Securistyle) - art. CPB1 - 2 pcs.
L=801..1100mm
- pos.4 - Shootbolt extensions (MACO) - art. 220233 - 2 pcs.
- pos.8 - Commercial pull in blocks (Securistyle)- art. CPB1 - 3 pcs.

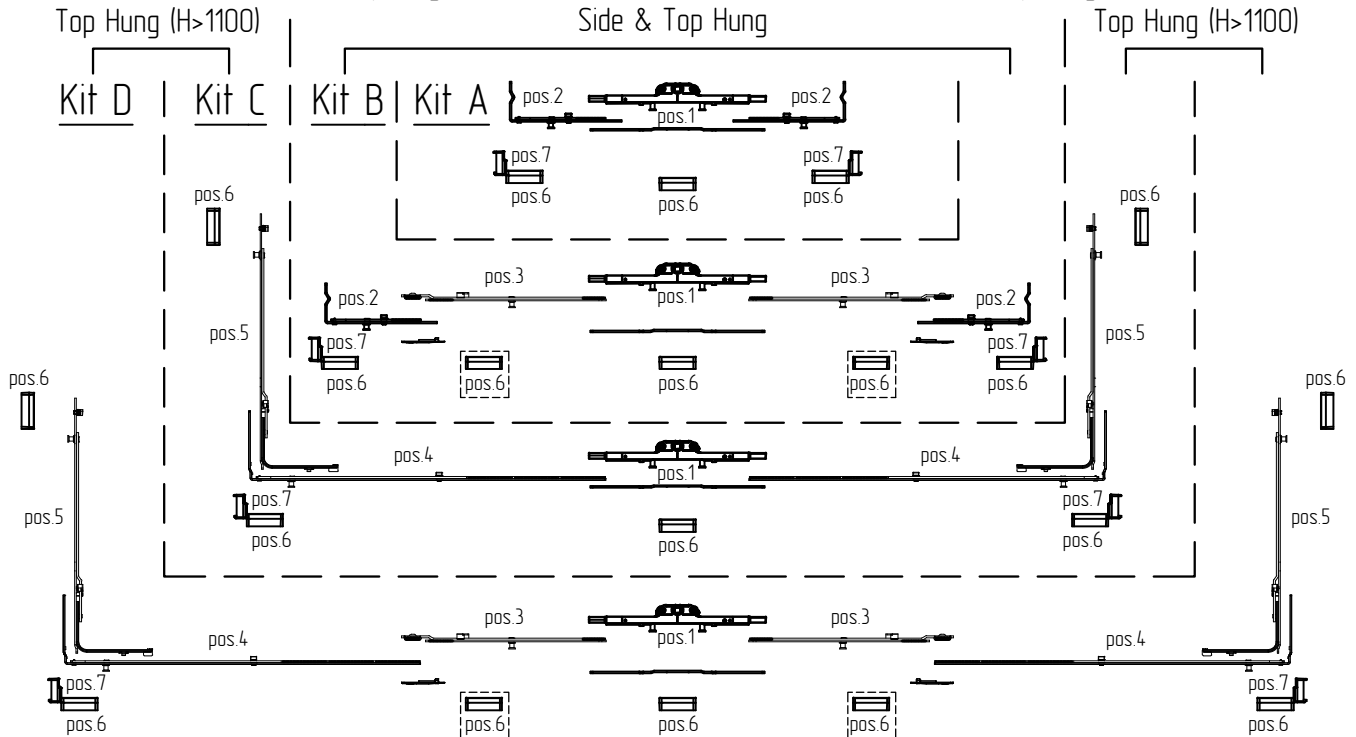
Kit D



Top Hung

- pos.1 - Basket 20 mm (MACO) - art.11048 - 1 pcs.
- pos.4 - Shootbolt extensions (MACO) - art. 220232 - 2 pcs.
- pos.5 - Shootbolt center locks (MACO) (by matching):
- art. 220036 - size 0 (1100-1300) - 2 pcs.
- art. 220037 - size 1 (1301-1500) - 2 pcs.
- pos.6 - Mushroom blanking plate (MACO) - art. 371913 - 7 pcs.
- pos.7 - Shootbolt striker plate (MACO) - art. 371914 - 2 pcs.
- pos.8 - Commercial pull in blocks (Securistyle) - art. CPB1 - 5 pcs.
- pos.9 - Friction hinges support (Giesse)- art. 01974 - 1 pcs.
- pos.10 - Window handle offset - art. H2-15 (R/L) - 1 pcs.
L=1101..1300mm
- pos.3 - Extension 250 mm (MACO) - art. 101530 - 2 pcs.
L=1301..1720mm
- pos.3 - Extension 600 mm (MACO) - art. 102859 - 2 pcs.

Exterior opening window hardware installation scheme (Side & Top Hung)



○ - pos.8 - Commercial pull in blocks (Securistyle) - art. CPB1

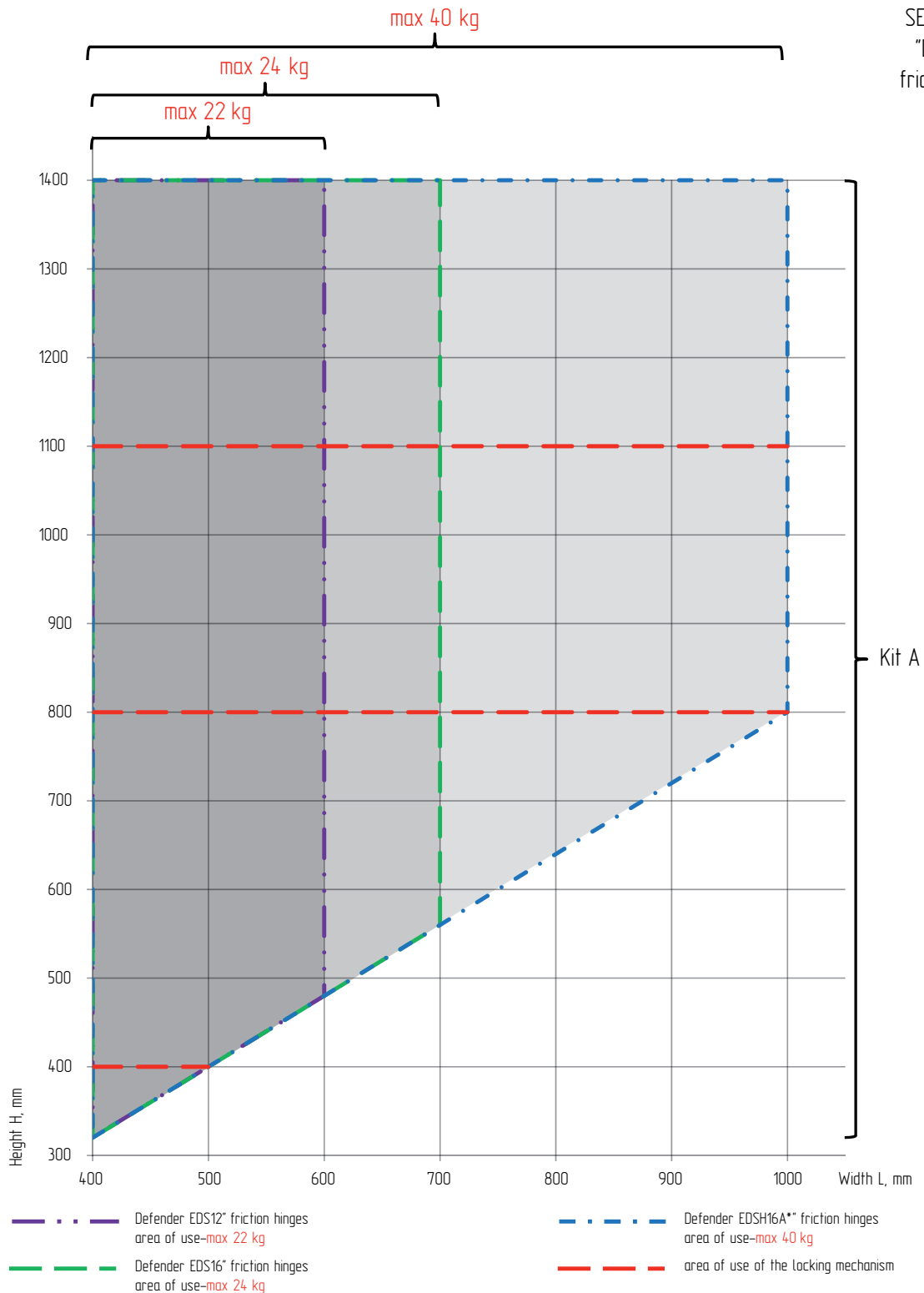
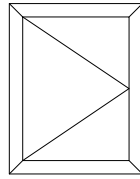
□ - pos.6 - Mushroom blanking plate (MACO) - art. 371913

The Commercial pull in blocks (Securistyle) - CPB1 is placed in front of the strike plates (MACO). The installation scheme is shown on p. 1106

HARDWARE

Exterior opening casement window hardware (Side Hung)

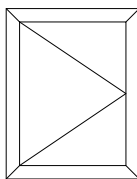
Types of windows



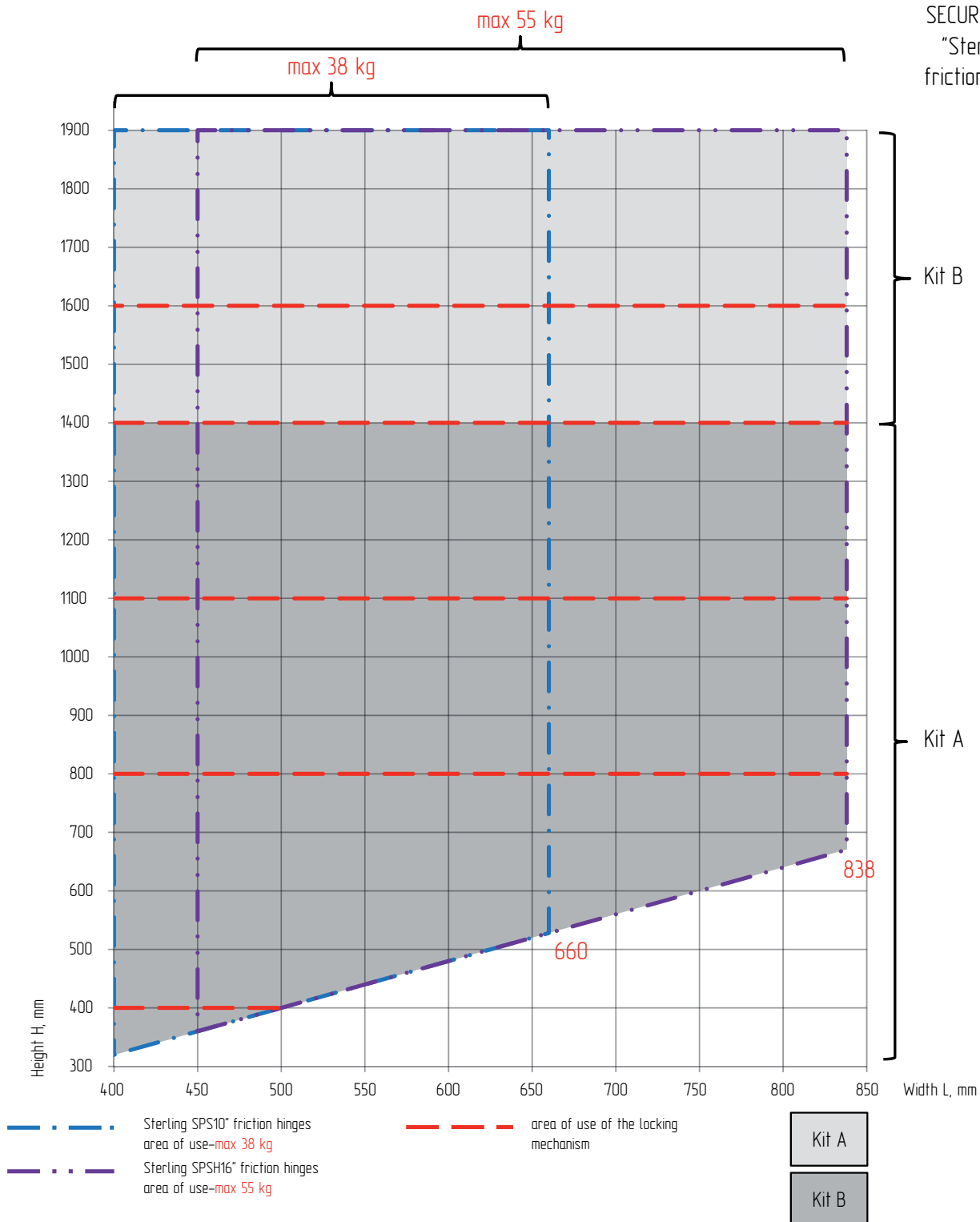
SECURISTYLE
"Defender"
friction hinges

Exterior opening casement window hardware (Side Hung)

Types of windows



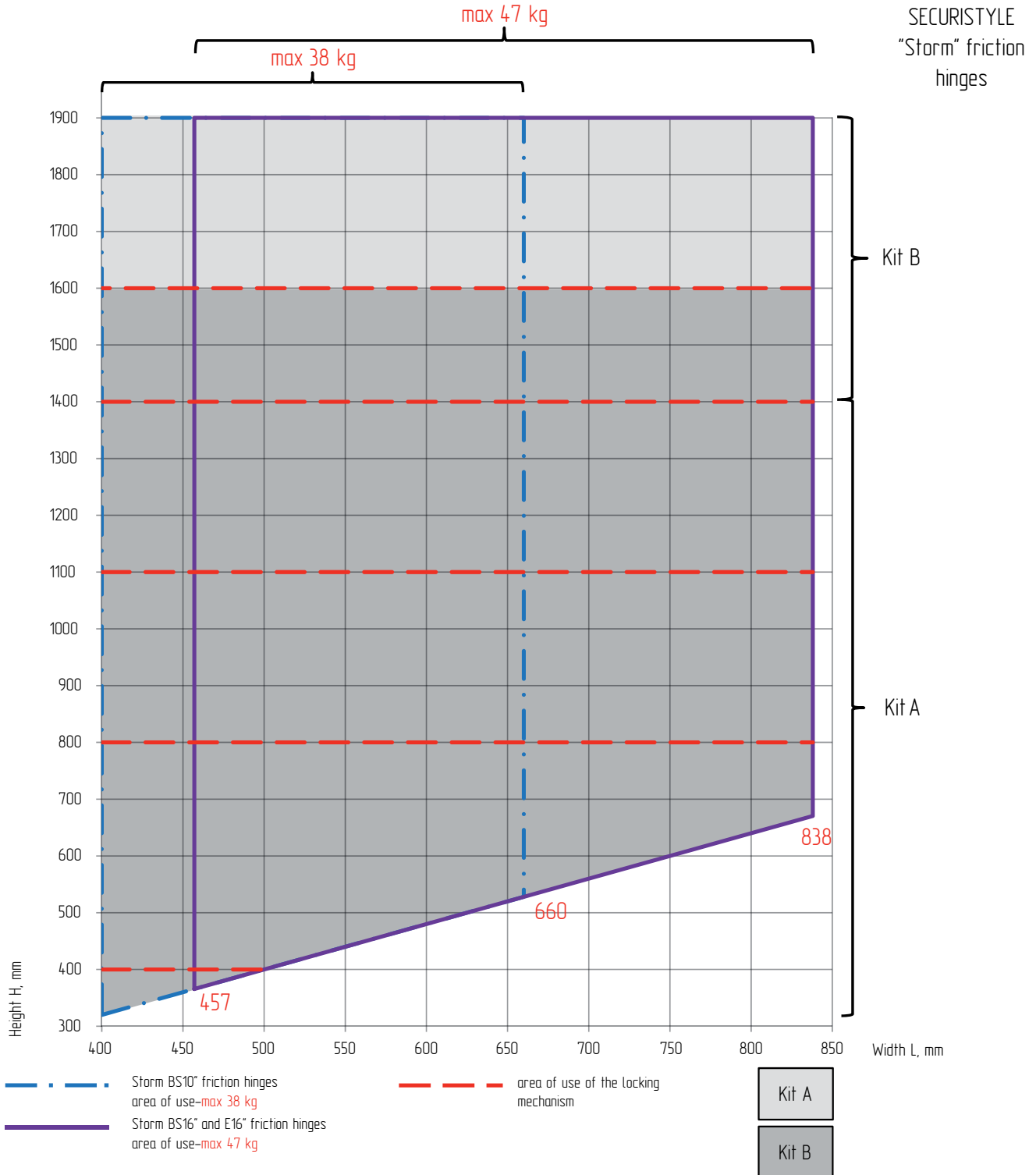
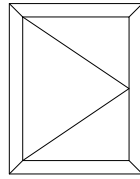
SECURISTYLE
"Sterling"
friction hinges



HARDWARE

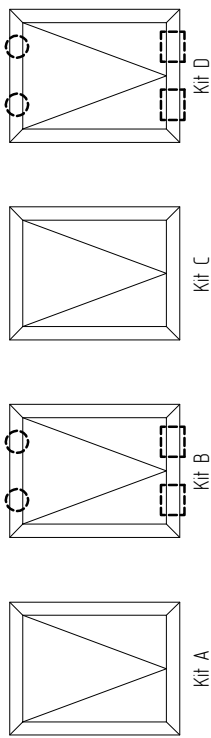
Exterior opening casement window hardware (Side Hung)

Types of windows



Exterior opening window hardware (Top Hung)

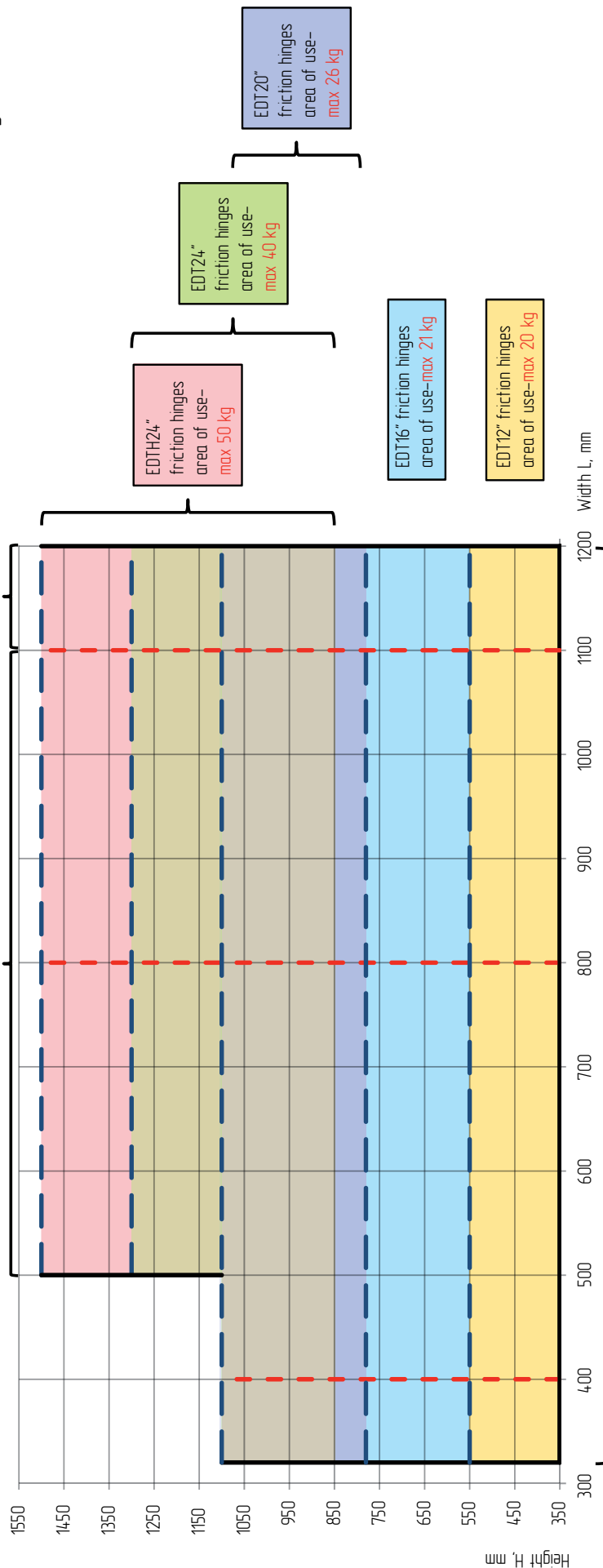
Types of windows



SECURISTYLE
"Defender"
friction hinges

Kit C
(L = 500...1100,
H = 1100...1500)

Kit D
(L = 1101...1200,
H = 1100...1500)

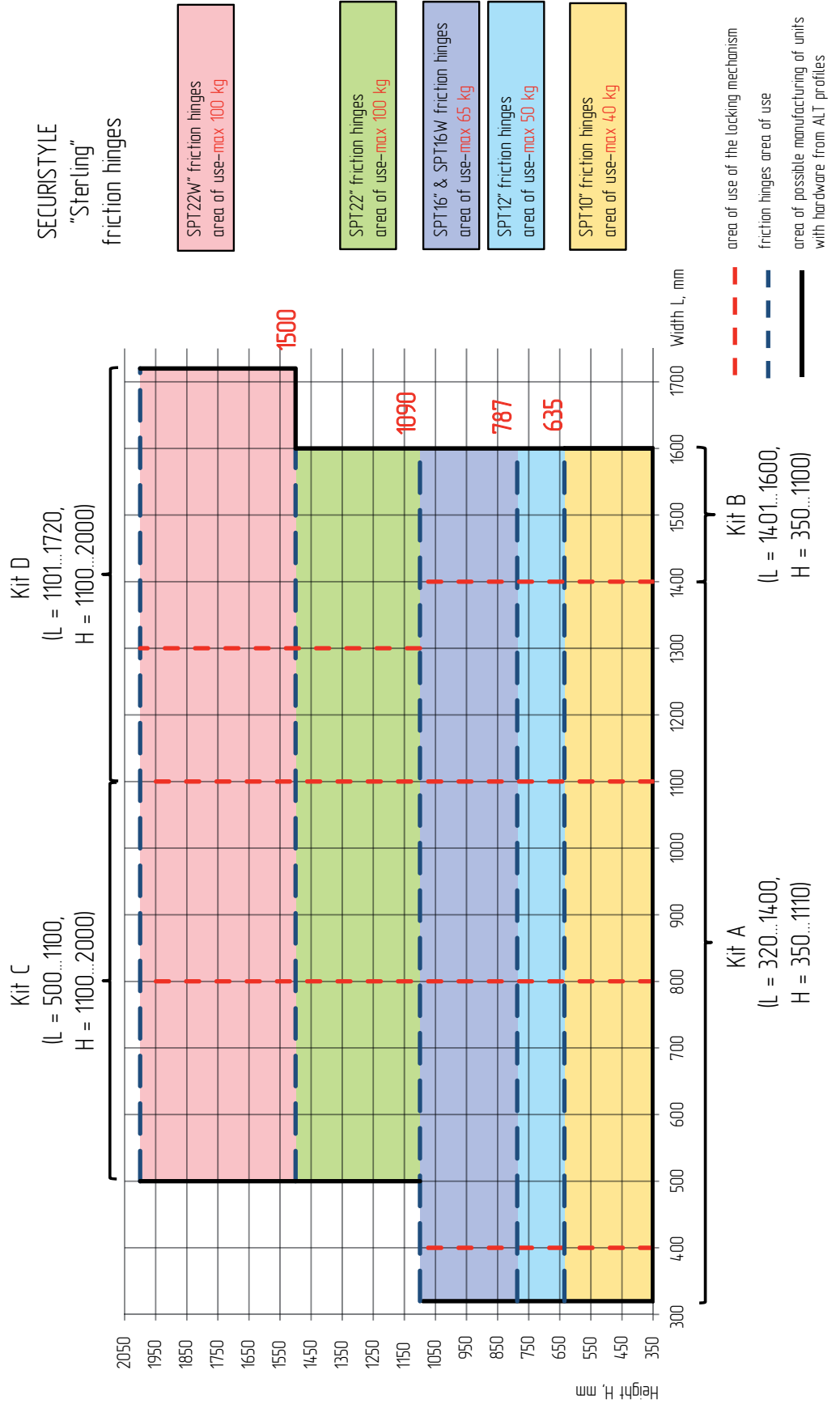
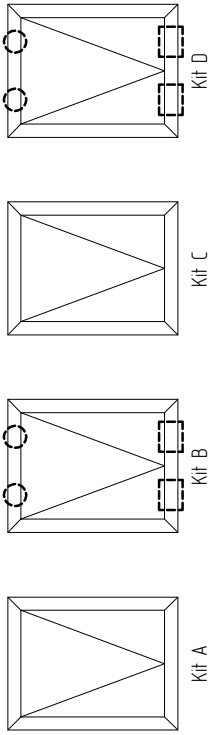


- area of use of the locking mechanism
- friction hinges area of use
- area of possible manufacturing of units with hardware from ALT profiles

Kit A
(L = 320...1200,
H = 350...1100)

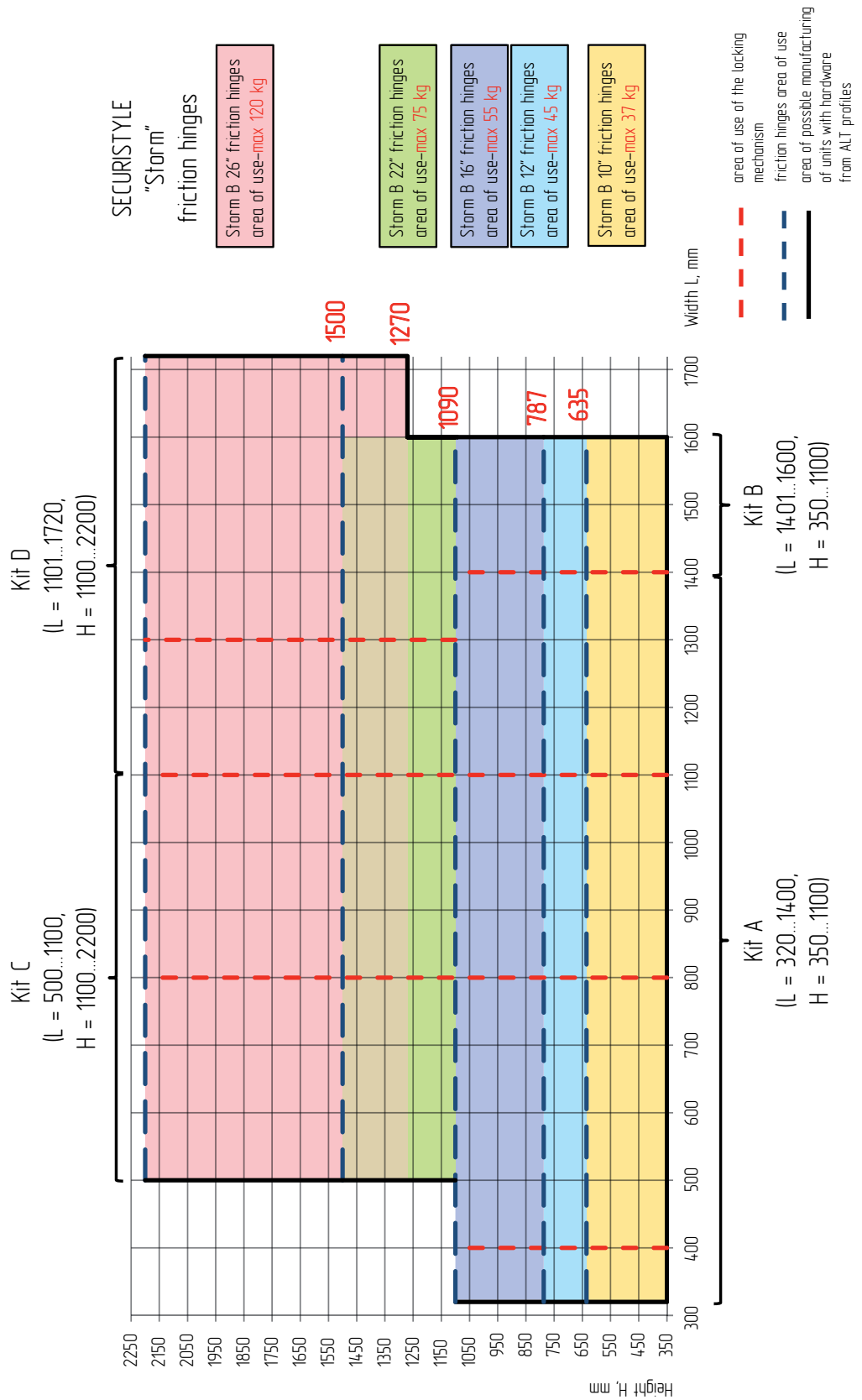
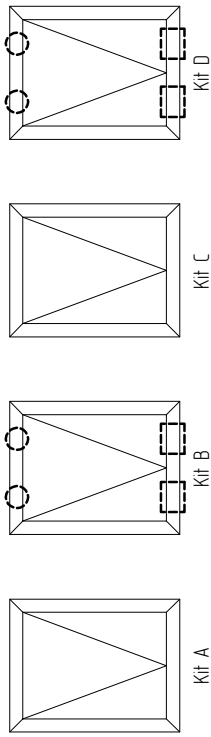
Exterior opening window hardware (Top Hung)

Types of windows



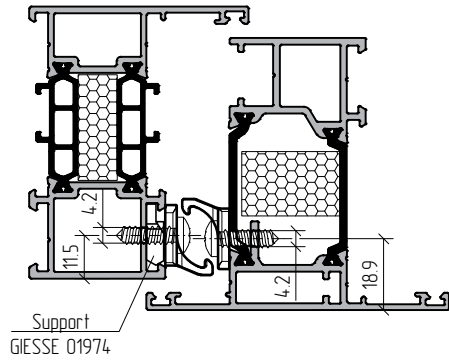
Exterior opening window hardware (Top Hung)

Types of windows

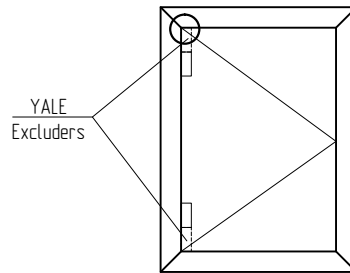


PAS24 Configuration Details
YALE Excluders installation on the frame and on the sash

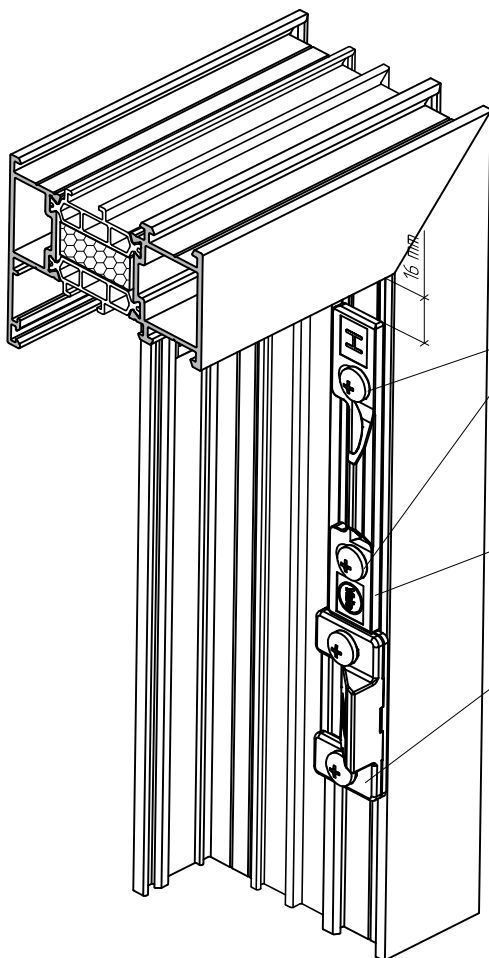
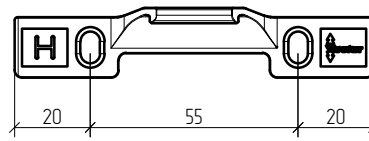
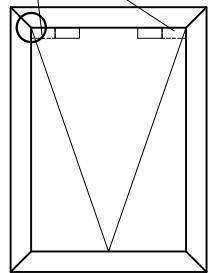
Frame and sash profile machining for 4.8x16-A2 DIN7981



YALE Excluders allocation scheme



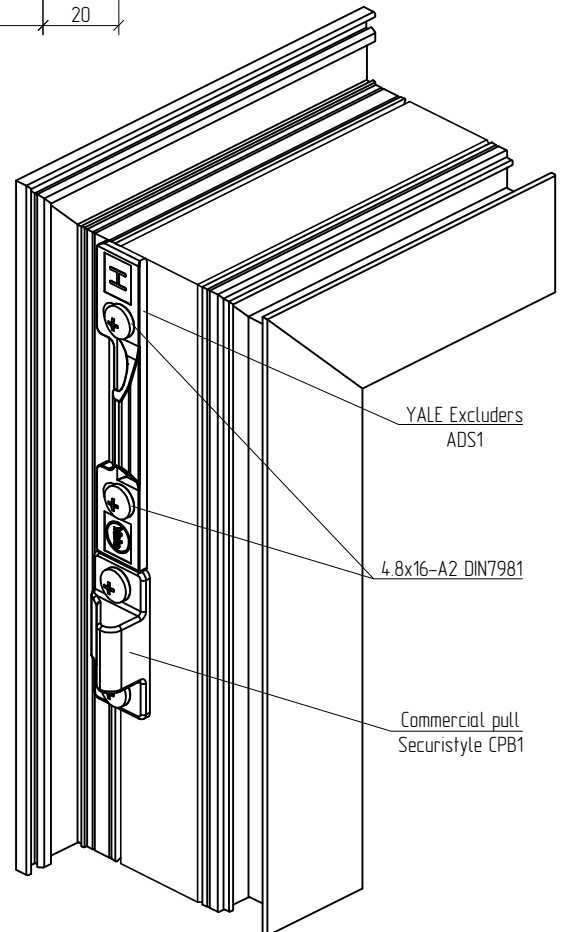
YALE Excluders



4.8x16-A2 DIN7981
Support GIESSE 01974

YALE Excluders
ADS1

Commercial pull
Securistyle CPB1



YALE Excluders
ADS1

4.8x16-A2 DIN7981

Commercial pull
Securistyle CPB1

YALE Excluders (PAS24) (Securistyle) - art. ADS1 - 1 set (4 per set)
Friction hinges support (Giesse)- art. 01974 - 4 pcs.

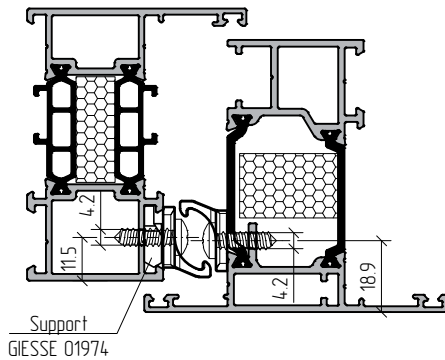


Machining dimensions could differ depending on the type and on the hardware manufacturer

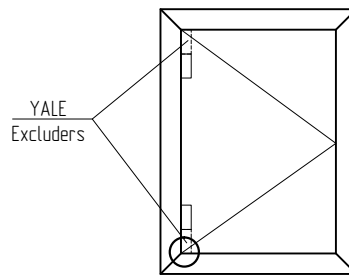
PAS24 Configuration Details

YALE Excluders installation on the frame and on the sash

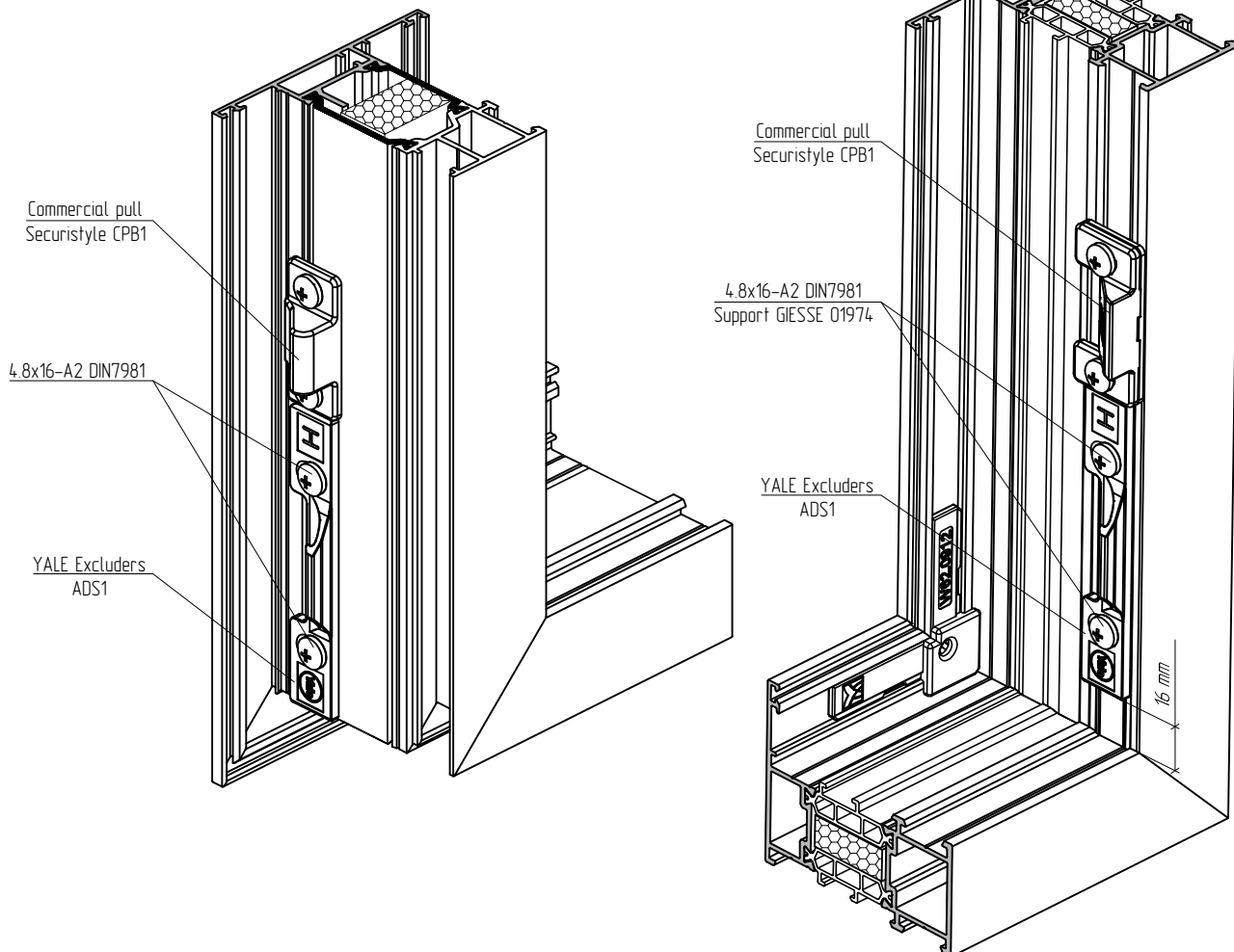
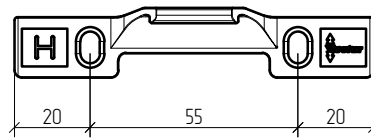
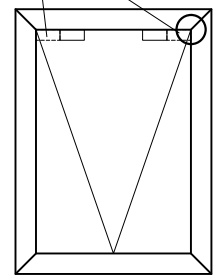
Frame and sash profile machining for 4.8x16-A2 DIN7981



YALE Excluders allocation scheme



YALE Excluders

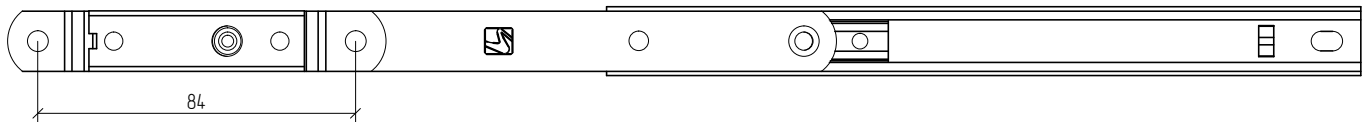
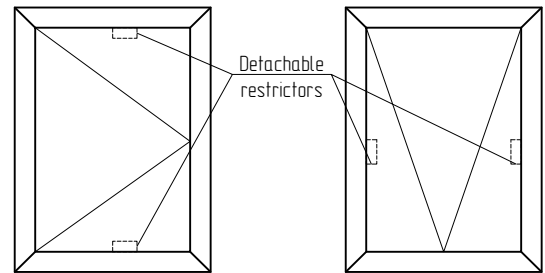
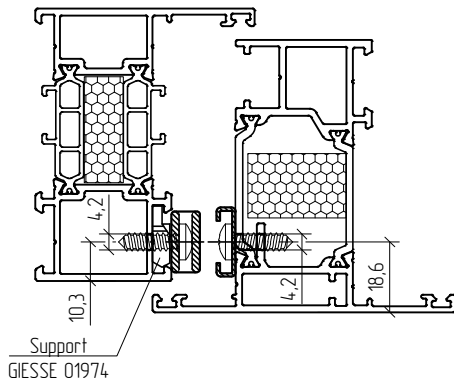


Machining dimensions could differ depending on the type and on the hardware manufacturer

PAS24 Configuration Details
 Detachable restrictors installation on the frame and on the sash

Frame and sash profile machining for 4,8x16-A2 DIN7981

Detachable restrictors allocation scheme



Detachable restrictors (PAS24) (Securistyle) (by matching):

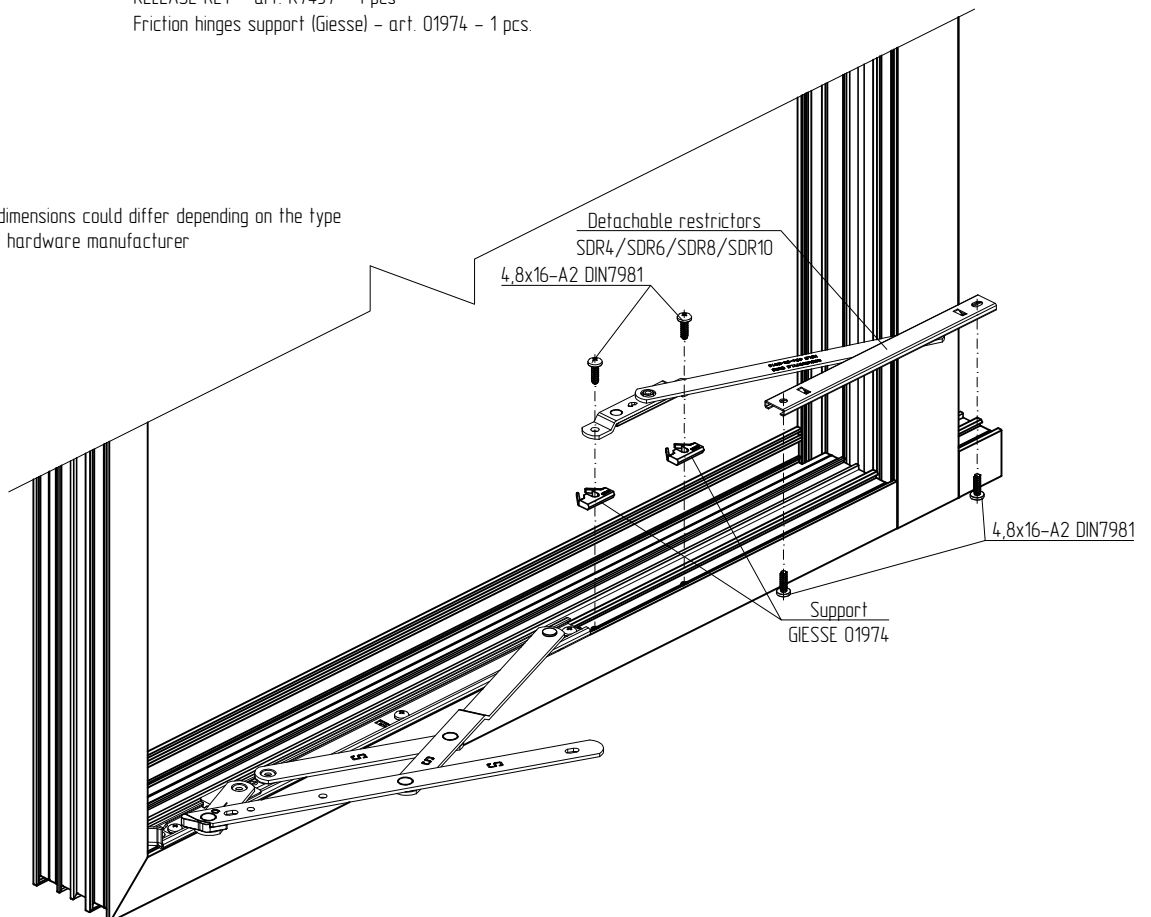
- art. SDR4 - 2 pcs.
- art. SDR6 - 2 pcs.
- art. SDR8 - 2 pcs.
- art. SDR10 - 2 pcs.

RELEASE KEY - art. R7437 - 1 pcs

Friction hinges support (Giesse) - art. 01974 - 1 pcs.

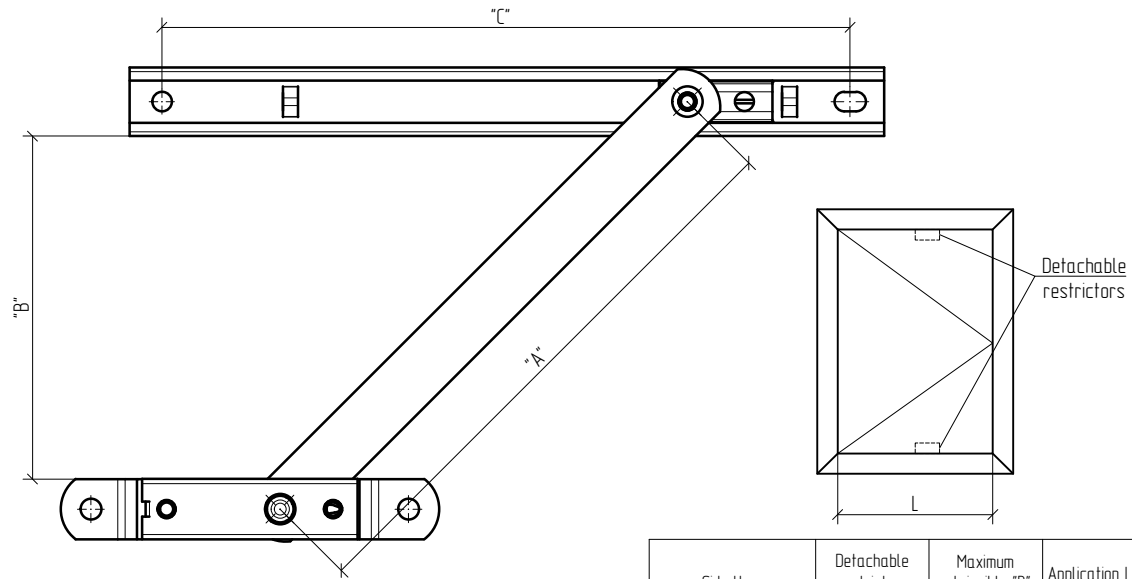


Machining dimensions could differ depending on the type and on the hardware manufacturer



PAS24 Configuration Details

Opening stop application depending on the window type

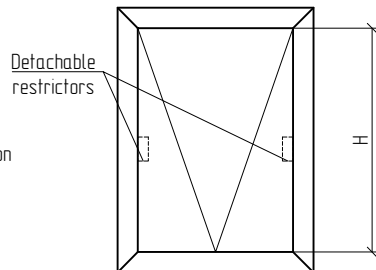


Detachable restrictors (PAS24) (Securistyle)	"A", mm	"B", mm	"C", mm
SDR4	1016	54.8	132
SDR6	152.4	90.7	182
SDR8	203.8	126.9	182
SDR10	254	128.6	232

Side Hung	Detachable restrictors (Securistyle)	Maximum admissible "B" opening, mm	Application L, mm	
"Defender" friction hinges	EDS12	SDR4	54.8	640..660
	EDS16A	SDR4	54.8	750..1000
		SDR6	90.7	790..1000
		SDR8	126.9	850..1000
"Sterling" friction hinges	SPS10	SDR4	54.8	600..660
	SPSH16	SDR4	54.8	635..737
"Storm" friction hinges		BS10	SDR4	54.8
	BS16	SDR4	54.8	748..838
		SDR6	90.7	790..838



Machining dimensions could differ depending on the type and on the hardware manufacturer

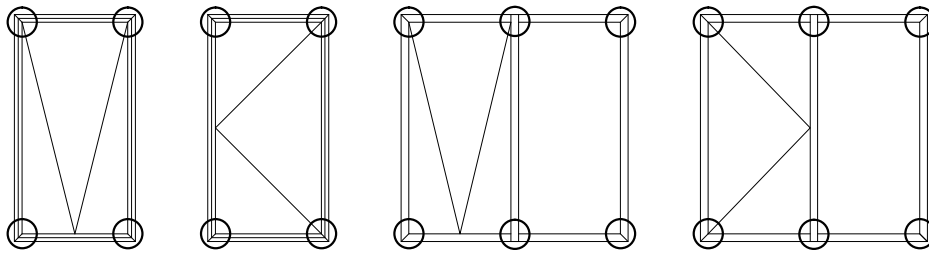


Top Hung (Kit A & B)	Detachable restrictors (Securistyle)	Maximum admissible "B" opening, mm	Application H, mm	
"Defender" friction hinges	EDT16	SDR4	54.8	741..780
	EDT20	SDR4	54.8	842..890
		SDR6	90.7	891..943
		SDR8	126.9	944..991
"Sterling" friction hinges	SPT10	SDR4	54.8	592..635
		SDR4	54.8	642..690
		SDR6	90.7	691..743
		SDR8	126.9	744..787
"Storm" friction hinges	B10	SDR4	54.8	595..635
		SDR4	54.8	650..689
		SDR6	90.7	690..744
		SDR8	126.9	745..787
"Storm" friction hinges	B12	SDR6	90.7	792..845
		SDR8	126.9	846..893
		SDR10	128.6	894..1090
		SDR4	54.8	595..635

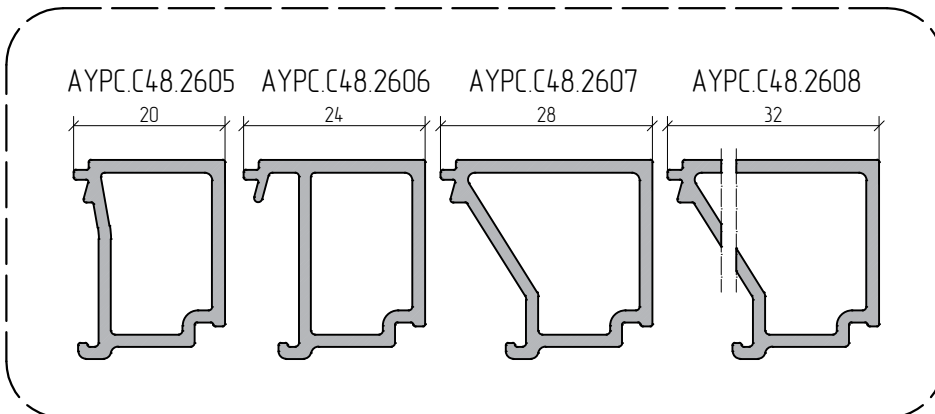
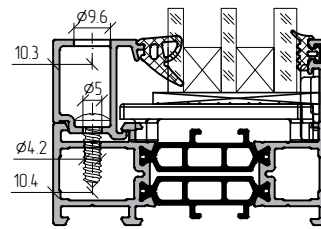
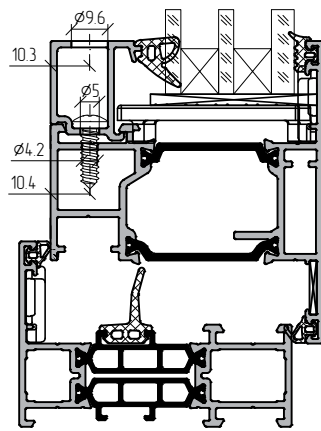
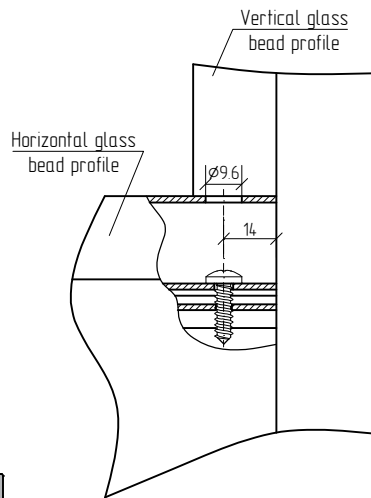
Top Hung (Kit C & D)	Detachable restrictors (Securistyle)	Maximum admissible "B" opening, mm	Application H, mm				
"Defender" friction hinges	EDT24	SDR4	54.8	1248..1300	-	-	-
	EDTH24	SDR4	54.8	1248..1347	1348..1475	1476..1500	-
		SDR6	90.7	1296..1395	1396..1500	-	-
		SDR8	126.9	1350..1449	1450..1500	-	-
"Sterling" friction hinges	SPT22	SDR4	54.8	1199..1298	1299..1426	1427..1500	-
		SDR6	90.7	1247..1346	1347..1475	1476..1500	-
		SDR8	126.9	1301..1400	1401..1500	-	-
		SDR10	128.6	1349..1448	1449..1500	-	-
"Storm" friction hinges	SPT22W	SDR4	54.8	-	-	-	1531..2000
		SDR6	90.7	-	-	1500..1578	1579..2000
		SDR8	126.9	-	-	1533..1632	1633..2000
		SDR10	128.6	-	-	1581..1680	1681..2000
"Storm" friction hinges	B22	SDR4	54.8	1200..1347	1348..1427	1428..1500	-
		SDR6	90.7	1248..1401	1402..1475	1476..1500	-
		SDR8	126.9	1302..1449	1450..1500	-	-
		SDR10	128.6	1350..1500	-	-	-
"Storm" friction hinges	B26	SDR4	54.8	1313..1412	1413..1540	1541..1639	1640..2200
		SDR6	90.7	1362..1461	1462..1588	1589..1689	1690..2200
		SDR8	126.9	1416..1515	1516..1642	1643..1742	1743..2200
		SDR10	128.6	1463..1562	1563..1689	1690..1789	1790..2200
pos.5 - Shootbolt center locks (MACO) (by matching):				209719	220035	220036	220037

PAS24 Configuration Details

Fixing of the horizontal glass bead profile with 4.8x16- A2 DIN7981 screw



The screw positioning over the length



List of fasteners depending on the hardware element

Fasteners	Article	Name	Quantity, pcs
M5x20 DIN965	H2-15 (R/L)	Window handle (right/left-hand offset)	2
4.8x16-A2 DIN7981 4.8x25-A2 DIN7981	10..12...16	Securistyle friction hinges	6 6
4.8x16-A2 DIN7981 4.8x25-A2 DIN7981	22..22W	Securistyle friction hinges	8 6
4.8x16-A2 DIN7981 4.8x25-A2 DIN7981	26	Securistyle friction hinges	8 8
4.8x16-A2 DIN7981	CPB1	Commercial pull in blocks	4
	ADS1	YALE Excluders (PAS24)	8
	SDR4 SDR6 SDR8 SDR10	Detachable restrictors (PAS24)	4 4 4 4
4.2x25-A2 DIN7982	11048	Basket 20 mm	2
	371913 371914	Striker plate	2 2
	58177 58161	Shootbolt extensions	4 4
	58168 58169	Shootbolt extensions	5 5
	101530 102859	Shootbolt extensions	2 2
	220232	Shootbolt extensions	2
	220233	Shootbolt extensions	3
	209719 220035	Shootbolt center locks	4 4
	220036 220037	Shootbolt center locks	5 5



The quantity of fasteners can differ depending on the hardware type and manufacturer



ALUTECH ALTW72 CW

Window system
with thermal break

Thermal characteristics

01

02

03

04

05

06

07

08

09

10

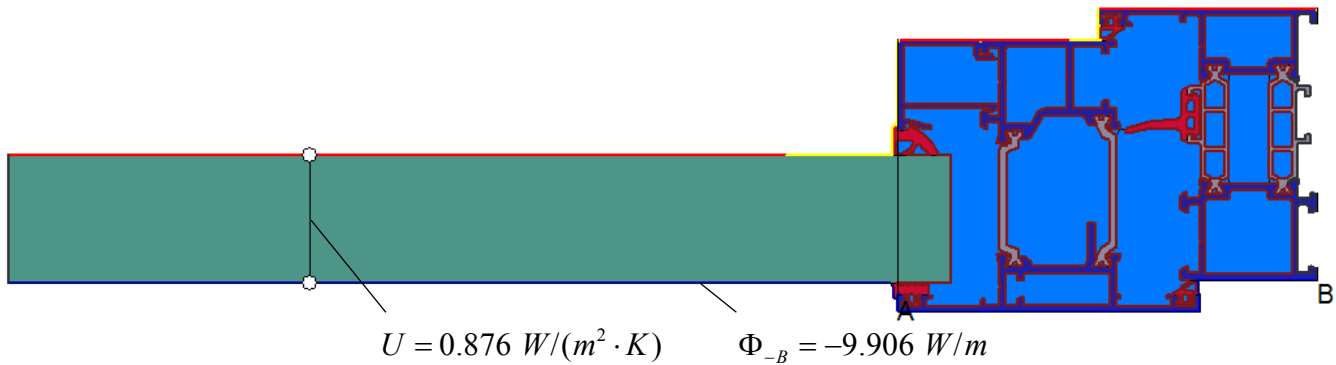
11

12

Thermal performance calculation

Results of the thermal performance calculation of AYPC.W72CW profiles with Flixo pro 7 (7.0.628.1) kit without foamed inserts in the area under the glass unit and inside of the profile.

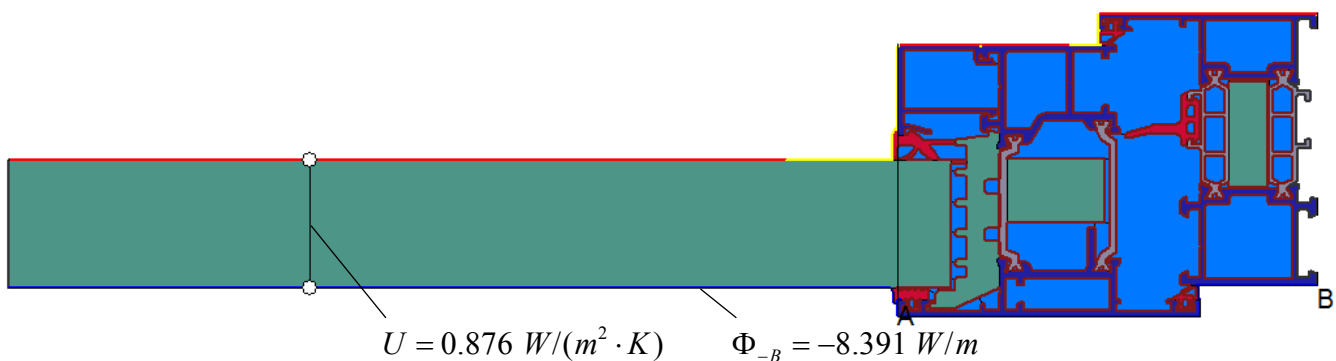
Option 1. Junction: AYPC.W72.0102NE frame profile / AYPC.W72.0240NE sash profile



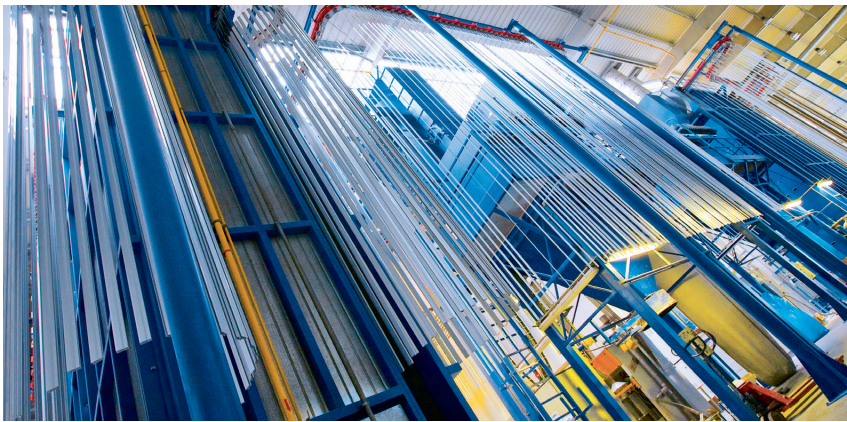
$$U = \frac{\frac{\Phi}{\Delta T} - U_p \cdot b_p}{b_f} = \frac{\frac{9.906}{20.000} - 0.876 \cdot 0.236}{0.111} = 2.60 \text{ W/(m}^2 \cdot \text{K)}$$

Results of the thermal performance calculation of AYPC.W72CW profiles with Flixo pro 7 (7.0.628.1) kit with foamed inserts in the area under the glass unit and inside the profile.

Option 2. Junction: AYPC.W72.0102E frame profile / AYPC.W72.0240E sash profile



$$U = \frac{\frac{\Phi}{\Delta T} - U_p \cdot b_p}{b_f} = \frac{\frac{8.391}{20.000} - 0.876 \cdot 0.236}{0.111} = 1.92 \text{ W/(m}^2 \cdot \text{K)}$$



The ALT W72 CW aluminum profile system is designed for the outward opening top-hung and casement windows. This system corresponds to high-level airtightness, thermal and acoustic insulation requirements. In case of making the design and assembly of the windows of various sizes and purposes, the range of the system profiles allows to use the materials rationally.

In comparison with the similar systems, the distinctive feature of the ALT W72 CW system is the absence of complex operations of milling the profiles during the assembly process, which significantly simplifies work, reduces labor costs, increases the quality of the product.

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